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EDITED BY

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Original Articles.

THE TREATMENT OF PNEUMONIA IN ST. FRANCIS HOSPITAL.

WITH RESULTS IN TWO HUNDRED AND TWENTY-EIGHT CASES.

BY ARNOT SPENCE, M.D.,

NEW YORK.

IN view of the great mortality of pneumonia, its treatment is a question of pre-eminent importance. It is still, we must admit, in an unsettled state, and for that reason every effort should be made to advance it. In this article the subject of treatment alone will claim attention.

Professor William Osler, in a very interesting paper on "Mortality in Pneumonia," quotes the rate obtained in the Pennsylvania General Hospital, during 1885, 1886, and 1887, as 36.1 per cent. ; and of all the cases since 1845, it was 29.1 per cent. Also, at the Boston City Hospital he says they report a death-rate of 29.1 per cent., when all the cases for the past thirteen years are considered. In the New Orleans Charity Hospital, in a series of nearly four thousand cases, he quotes them as reporting a rate of mortality of 28.01 per cent.

In a report made by Dr. Latta, of 257 cases of pneumonia treated for the Pennsylvania Railroad Relief Department, he gives the death-rate as 20.23 per cent. In explanation of this rather low rate, he describes his patients as strong and healthy men, of temperate habits, and engaged in healthy out door work. Thus he shows his appreciation of the fact that he had the best possible material for good results.

Professor A. L. Loomis reports the mortality as obtained by him, in 255 cases treated in his wards at Bellevue Hospital during a period of four years, as 34.1 per cent. In physical condition his patients were the opposite of those of the Pennsylvania Railroad Relief Department, for nearly one-half of them were complicated cases. These figures suffice to show the great severity of pneumonia, in this country at least ; and they are a sufficient argument in themselves for the presentation of facts in support of a treatment which has given better results.

The cases forming the subject-matter of this report, were treated on the service of Dr. J. H. Ripley, at St. Francis Hospital, during the period from October 1, 1884, to October 1, 1892. As the previous condition and surroundings of the patients are of such importance when comparing the results obtained by different methods of treatment, a few words bearing on these cases cannot fail to be of interest.

They were, with but few exceptions, residents of the East Side tenements, and of most every nationality. The majority, however, were Germans. Owing to the unsanitary state of these dwellings, the hardships of breadwinning, and the dissipations these people indulge in, their physical condition is seldom even fair ; and they are thus heavily handicapped in the struggle with any grave disease. In addition, they allow ignorance and superstition to stand in the way of their well-being, and very often delay applying for treatment until treatment can be of little avail. They are firm believers in the self-limitation of disease, and suffer patiently in the hope that the next day will find them better.

The treatment, as pursued in all of the cases, was in accordance with a plan suggested by Dr. Ripley, and through his directions carried out. To begin with, the bowels were freely moved. For that purpose five grains of calomel, well rubbed up with sugar and milk, was given if the patient's condition allowed ; or if too weak, a more gentle laxative was employed. After the bowels had acted, the following mixture was given, a half ounce every two hours :

℞. Tr. aconiti..... ℥ xxiv.
Tr. opii camphoratæ..... ʒ ij.
Liq. ammonii acetatis,
Syr. zingiberis,..... .....āā ℥ ss.
Aquæ ....q. s. ad ℥ vj.
M. Sig. : ℥ ss. every two hours.

The aconite was given primarily for its effect on the heart and blood-vessels, and thus on the inflamed lung, and secondarily to reduce the temperature. It produces a quieting and slowing of the irritable and rapid heart, and a reduction of the arterial pressure, thereby lessening the amount of blood in the congested lung. It controls the temperature within a safe range, and prevents the marked exacerbations so common in typical cases of this disease. In strong and full-blooded patients, veratrum viride was substituted for the aconite in this mixture, and used in about the same dose. The paregoric is added to ease the short and harassing cough, which is often such a disturber of rest. The spirit of mindererus acts as a diaphoretic, keeping the skin moist, and in its way relieving the kidneys to some extent. Besides assisting thus to keep the temperature down, it is also a stimulant.

Throughout the administration of this mixture the heart was most carefully watched to note the effects of the drugs, and, all things being favorable, it was continued until the fall in temperature denoted the crisis of the disease. When further stimulation seemed necessary, whiskey was freely given, but never unless it was indicated. The administration of alcoholic stimulants all through this disease, as is frequently done, is a practice capable of doing great harm.

In obstinate sleeplessness from any cause, as well as that caused by troublesome cough or pleuritic pain, a drachm of the U. S. solution of morphine was occasionally given at night. The free or constant use of morphine was never resorted to, for its injurious effects in most instances far over-balance any relief it might afford the patient. It masks the signs, which to the observant attendant are the danger signals of the disease, and adds, when given too freely, another and greater danger, by its action in diminishing the number of the respirations, thereby interfering with the proper oxygenation of the blood.

If, notwithstanding the use of this, our pneumonia mixture, the temperature should rise and remain above 104° F., the cold half pack was resorted to in most cases. The antipyretic drugs were given only on rare occasions, and then never by order of the visiting physician, who has always strenuously opposed their use ; but rather in response to the uncontrollable impulse, that seems to be epidemic not alone among the younger members of the profession, that every rise in temperature, whether extreme or otherwise, must be combated by the administration of one of these dangerous drugs. It is unreasonable to expect that a few hours' remission of fever, the result of any of these depressing antipyretics, can better the condition of the patient, or even compensate for the bad effect the drug leaves on the heart. The indiscriminate employment of these antipyretic drugs in every case of fever or rise of temperature, cannot be too severely condemned.

The only attempt at local measures or applications was

the wearing of an oil-silk jacket over the chest, immediately next the skin. This was worn throughout the treatment. While flax-seed poultices, when correctly applied, seem to favorably influence the course of pneumonia in children, they cannot be used with comfort in the adult. For without being of immense bulk and weight, we cannot make them sufficiently large to completely encircle an adult chest; and certainly they are of no value when otherwise applied. The small poultice, equal in size to one's hand, as usually applied by the amateur nurse, is but a useless substitute.

The diet in all of our cases was limited, until convalescence set in, to milk, meat broths, soups, and farinaceous gruels. The reclining posture was preferred, and the patient was not allowed to leave the bed for any purpose. Much praise is due to the nurses, the Sisters in charge of the hospital, for their intelligent and untiring attention to these patients.

During the period mentioned, from October 1, 1884, to October 1, 1892, Dr. Ripley's wards cared for 276 cases of pneumonia; while 228 of those received this particular treatment. These 228 cases can be classified as follows:

	Cases.	Deaths.	Mortality. Per cent.
Croupous pneumonia, uncomplicated	125	18	14.4
Croupous pneumonia, complicated	76	25	32.8
Catarrhal pneumonia, uncomplicated	25	5	20.0
Catarrhal pneumonia, complicated	2	0	0.0
Total number	228	48	21.05

Thus, of the 228 cases treated according to the plan already described, 48 died, showing a mortality-rate of 21.05 per cent.

A glance at the different groups and at the results given, shows very conclusively that the complications which attend this disease, and the affections it is so commonly associated with, have much to do with its great fatality. Notice the low rate, only fourteen per cent., obtained in the uncomplicated cases of croupous pneumonia, or those cases in which only one lung was involved and no other disease coexisted; while in the complicated cases of the same variety the mortality was 32.8 per cent.—two and one-third times as great. That more than one-third of the croupous pneumonia cases were complicated is another important fact. The death-rate of the uncomplicated cases of the catarrhal form was twenty per cent. This was higher than that of the same class of the croupous variety by nearly one-half. Owing to the small number (only two cases) in the complicated group, we cannot make any comparison between the two classes of the catarrhal form of this disease.

Since we have observed in a general way the serious effect these complications have on the main result, it must prove of greater importance to note which of them are most dangerous. In the following table, the cases have been so arranged as to show the number complicated by the different affections, and the number of each that have ended in death:

Variety and Complications.	Cases.	Deaths.
Double croupous pneumonia	13	7
with pleurisy	2	1
with empyema (pyothorax)	1	..
with pleurisy and pericarditis	2	1
with pericarditis and nephritis	1	..
with nephritis and valvular disease of heart	1	1
with miscarriage at 6½ months	1	..
Croupous pneumonia with pleurisy	20	..
with empyema (pyothorax)	3	1
with pleurisy and pericarditis	1	1
with hemorrhagic pleurisy, nephritis, and phthisis	1	..
with pericarditis and valvular disease of heart	2	..
with pericarditis and phthisis	1	1
with valvular disease of the heart	3	..
with valvular disease of heart and acute rheumatism	1	..
with nephritis	4	2
with nephritis and fatty heart	1	1
with phthisis	4	..
with emphysema	2	2
with acute alcoholism	3	3
with chronic alcoholism	1	1
with malarial cachexia	1	..
with acute tonsillitis	1	..
with perihepatitis	1	..
with hepatic abscess and morphine habit	1	..
with purulent infiltration	1	1
with pulmonary abscess	1	1
with cellulitis of the hand	1	1
with melancholia	1	..
Catarrhal pneumonia with pleurisy	1	..
with phthisis	1	..
Total	78	25

Double pneumonia, alone and with other complications, was present in twenty one cases, and of these ten died. Pleurisy, including serous, hemorrhagic, and purulent effusions, occurred in thirty-one cases, four being fatal; two of these were double pneumonias, one having in addition acute pericarditis. In only one case with empyema did death occur. Acute pericarditis was present in seven cases, and caused death in four of them.

Of the co-existing diseases nephritis was present, alone and with other complications, in 8 cases, and 5 of them died. Valvular disease of the heart was present in 7 cases, of which number, one, also complicated by nephritis, died. Phthisis affected 7 of the cases, and only one of these ended fatally. Of our patients, 3 had very serious complications, which fortunately did not cause death. A nineteen-year-old wife miscarried a six and one-half months' fœtus during the height of the pneumonia. The second one was complicated by hemorrhagic pleurisy, phthisis, and chronic nephritis; and the third, a male nurse with the morphine habit, had, in addition to his pneumonia, a hepatic abscess. Thus we had, all told, 78 cases with complications, 25 of which proved fatal. This makes the death-rate, in complicated cases alone, thirty-two per cent.

In the following list the causes of death have been enumerated, and the sex of these cases given:

Causes of Death.	Male.	Female.	Total.
Croupous pneumonia, uncomplicated	14	4	18
Catarrhal pneumonia, uncomplicated	5	.	5
Double croupous pneumonia	7	..	7
with pleurisy	..	1	1
with pleurisy and pericarditis	..	1	1
with nephritis and valvular disease of heart	1	..	1
Croupous pneumonia with empyema (pyothorax).	1	..	1
with pleurisy and pericarditis	1	..	1
with pericarditis and phthisis	1	..	1
with nephritis	1	1	2
with nephritis and fatty heart	..	1	1
with emphysema	2	..	2
with acute alcoholism	3	..	3
with chronic alcoholism	1	..	1
with purulent infiltration	1	..	1
with pulmonary abscess	1	..	1
with cellulitis of hand	1	..	1
Totals	40	8	48

We have classed the cases as uncomplicated so long as the process was confined to one lung, and no other complication existed.

In only 23, or ten per cent. of all the cases, was death due to uncomplicated pneumonia. Again, but 37 of the fatal cases, or 16.2 per cent., had in addition to the pneumonia such complications as commonly spring from it; as extension of the process to the other lung, pleurisy, serous or purulent, and pericarditis. Of the remaining deaths, three per cent. were due to chronic and incurable diseases of the heart, lungs, and kidneys, and 1.7 per cent. to alcoholism. In 1.3 per cent. was death due to septic infection, there being one case each of purulent infiltration of the lung, pulmonary abscess, and cellulitis of the hand.

The mortality caused by uncomplicated deaths, 10.08 per cent., agrees as to the result, with that obtained in 1,000 cases in the Massachusetts General Hospital, which were reported by C. N. Townsend and A. Coolidge, Jr. They concluded that their death-rate was but a little over

ten per cent., after they had omitted of the fatal cases, those that were necessarily fatal, also the deaths occurring in persons who were delicate, or intemperate, or the subject of some complication. Our rate (10.08 per cent.) represents the results after the omission of only complicated cases. A dissipated subject was not put down as an alcoholic case, unless he showed the immediate effects of alcohol while under observation. Should we eliminate all the delicate or intemperate from among our fatal cases this rate would be very decidedly diminished. Only one-sixth of the fatal cases were females, but as it will be shown later on, that is about the proportion of the sexes when all the cases are considered.

When we note separately each year's work, the results obtained were as follows:

Year.	Number of cases.	Number of deaths.	Rate of mortality.	Number of uncomplicated deaths.	Mortality from uncomplicated deaths, per cent.
Oct. 1, '84, to Oct. 1, '85..	35	8	22.8	4	11.4
Oct. 1, '85, to Oct. 1, '86..	27	2	7.4	1	3.7
Oct. 1, '86, to Oct. 1, '87..	21	2	9.5	2	9.5
Oct. 1, '87, to Oct. 1, '88..	22	9	40.9	3	13.6
Oct. 1, '88, to Oct. 1, '89..	22	4	18.1	1	4.5
Oct. 1, '89, to Oct. 1, '90..	28	6	21.4	4	14.2
Oct. 1, '90, to Oct. 1, '91..	34	6	17.6	4	11.7
Oct. 1, '91, to Oct. 1, '92..	93	11	28.2	4	10.2

The most noticeable feature when comparing the results from year to year is the wide variations shown; and this very fact proves the uselessness of drawing conclusions from the treatment of a small collection of cases. In 1885–86 the rate of mortality was only 7.4 per cent., and when the results of 1885–86 and 1886–87 are combined, we have the very low death-rate of 8.3 per cent. in 48 cases. On the other hand, in 1887–88 our mortality was very high, it being 40.9 per cent. During that year we were unfortunate in the class of cases, for 6 of the 9 deaths were due to complications. As to the results of the other years, the table speaks for itself.

The mortality in every year was not in an equal degree affected by the omission of the complicated fatal cases; but in every instance the rate is greatly reduced when these cases are not included. The 40.9 per cent. mortality can in this way be brought down to 13.6 per cent., and even the 8.3 per cent. rate (1885–86 and 1886–87) can be reduced to 4.08 per cent. It is important to note that only one uncomplicated death occurred in each of the two years 1885–86 and 1888–89.

In order to satisfactorily explain the want of agreement in the results obtained during different years, we should have to take into consideration the general physical condition of the patients, their ages, and the variations which are observed in all acute diseases. As an instance of the influence age had on these results, let us look at the ages of the fatal cases occurring in the year when the mortality was so high. Of the 9 deaths none were under thirty years of age; 3 were between thirty and forty years, 2 between forty and fifty, 2 between fifty and sixty; and 1 each at the sixtieth and seventieth year of age. These ages, as will be demonstrated later on, accounted to some extent for that forty per cent. rate.

In order to show that these results vary much less when the cases are arranged in larger groups, we have in the following table divided the cases in larger series:

	Number of recoveries.	Number of deaths.	Rate of mortality, per cent.	Number of uncomplicated deaths.	Mortality from uncomplicated deaths, per cent.
First 100 cases.....	79	21	21.0	10	10.0
Second 100 cases.....	84	16	16.0	10	10.0
1884–88, 105 cases.	84	21	20.0	10	9.5
1888–92, 123 cases.....	96	27	21.9	13	10.5
Total, 228 cases	180	48	21.05	23	10.05

Here the lowest mortality was in the second series of 100 cases only sixteen per cent. Taking a glance at the other groups, the rates are quite constant, there being a variation of less than two per cent. between the lowest and the highest. In the mortality of uncomplicated deaths this difference in the rates is only one per cent. If the first two groups are combined, we have a series of 200 consecutive cases, with a death-rate of only 18.5 per cent. The result obtained after a consideration of all the cases, 21.05 per cent., compares very favorably with the rates of the other hospitals, as quoted at the beginning of this article.

Age.—The patients ranged in age from five to seventy-eight years, there being one case at each of these limits and both recovered. The seventy-eight-year-old patient was a man with a severe pleuro-pneumonia.

Age.	Cases.	Deaths.	Mortality, per cent.
Under 10 years.....	3	0	0.0
From 10 to 20 years.....	18	0	0.0
From 20 to 30 years.....	88	15	17.0
From 30 to 40 years	60	11	18.3
From 40 to 50 years.....	32	10	31.2
From 50 to 60 years.....	15	6	40.0
From 60 to 70 years.....	9	4	44.4
At 70 years and over.....	3	2	66.6

The small number of cases under ten years of age is explained, when it is understood that St. Francis Hospital does not, as a rule, admit children for treatment. Under twenty years of age there were no deaths, while 21 cases below that age were treated. Nearly one-half our patients were under thirty years old, and over two thirds were less than forty years of age. While the mortality of those between twenty and thirty years old was seventeen per cent., when we consider all the cases under thirty years, 109 in number, the rate is only 13.7 per cent. This very low death-rate is undoubtedly due to the vigorous and sound constitutions of these young subjects. There were 169 cases under forty years of age, of which 26, or 15.3 per cent., died; and 201 cases under fifty years, with 36 deaths, a mortality of 17.8 per cent. These figures can be compared with the mortality reported by Dr. Latta, of the Pennsylvania Railroad Relief Department, which has been previously mentioned. In all probability those railroad men were under forty years of age; but in order to allow for some being older, we can place them for comparison in the class of cases under fifty years of age. It will be remembered Dr. Latta's results gave a mortality of 20.23 per cent.

It is interesting to note how steadily the rate runs up with the age, thus proving the great influence that factor has on the main result. To be sure, the small number of cases at the advanced ages, makes the mortality-rates for those periods less valuable; still, for comparison with each other they are sufficiently reliable. This marked influence that age exerts on the mortality can be easily understood. A constitution generally weakened by age cannot hope to battle against an exhausting disease with the same success as a younger one; and again, the patient with advancing years is more likely to be the subject of some chronic disease, which with the advent of pneumonia will help toward a fatal termination. When we inquire into the two deaths that occurred in patients at the seventieth year, we find both died after seven days of treatment; one had a catarrhal pneumonia uncomplicated except by age, and the other a croupous pneumonia complicated by an old emphysema. In like manner, of the four fatal cases between sixty and seventy years of age, two were uncomplicated, except by years. Of the other two, one had double pneumonia, pleurisy, and pericarditis, and the other chronic nephritis and fatty heart in addition to the pneumonia.

While it is generally conceded that this is one of the most fatal of the acute diseases in old age, according to some observers patients over sixty years of age, recover much more frequently than would be supposed. In these patients the grade of fever is not so high, and the process seems to be much less active.

Sex.—The female sex claimed 37 of our cases, and 191 were males. Death terminated the disease in 8 of the female cases, a mortality of 21.6 per cent.; and 40 of the males died, or 20.9 per cent. These figures tend to corroborate the general conclusions, that pneumonia is more fatal among females, while the disease seems to show a preference for the male sex.

Season.—Most of these cases occurred during the changeable and wet months of the spring of the year, the number being nearly as large as those of the fall and winter combined.

	Cases.	Deaths.	Mortality. Per cent.
Summer	30	8	26.6
Autumn	41	8	19.5
Winter	59	11	18.6
Spring	98	21	21.4

While this disease is usually looked upon as most prevalent and fatal during the spring of the year, in our cases the summer months gave the highest mortality. The heat and humidity, so distressing and exhausting to a person sick and confined to bed, are particularly unbearable when the lungs and heart are disabled. This probably explains the increased mortality during the warm season. While the winter gave the lowest rate, during the spring months we had the largest number of cases, with a mortality of only 21.4 per cent.

Thus it is evident that age, sex, and season, all exercise an influence to a greater or less degree on the result, and these we certainly cannot counteract. The complications which caused death in over eleven per cent. of our cases we cannot expect to prevent by any method of treatment, although it must be acknowledged we can modify their course. There is sufficient room for reduction, when we reflect that ten per cent. of our mortality was in uncomplicated cases. While we were able to show a death-rate of only 7.4 per cent. in 27 cases, and 8.3 per cent. in a series of 48, it is hardly to be expected that such results could be realized in a collection of 200 consecutive cases, especially in hospital practice. At the present time, however, the rate of mortality, 21.05 per cent., which has been obtained in these cases, must be considered good.

The claim that can be made for this plan of treatment is that it is rational, and meets the indications as well as they can be met with our present knowledge, and the means at our command. It certainly does not retard nature, but aims to save the strength and aid the resisting power of the patient, until the disease has run its course. That it is of some assistance, is shown by the results we have obtained; a mortality-rate which certainly compares very favorably with that of other hospital reports.

In conclusion, the writer wishes to express his appreciation of the kindness of Dr. J. H. Ripley, in permitting him to report these cases, and his gratitude for valuable suggestions and advice.

70 West Seventy-first Street.

Treatment of Sciatica.—Any new suggestion as to the treatment of sciatica will be welcomed by those who have been impressed with the intractable nature of some of the cases of this malady. In a recent number of the *American Practitioner and News*, Dr. Charles B. Lawrence gives a short account of his experience with different methods of treatment in sciatica. The most instructive case is that of a man, aged fifty-two, a carpenter, who had suffered from sciatica for seven weeks. He was emaciated and pale, and had been taking morphia to relieve his pain and he was now unwilling to leave it off. There was great tenderness along the whole course of the nerve, the patient was unable to use the leg and was in constant pain. Various methods of treatment were tried, but ineffectually. Finally nitro-glycerine was given in an alcoholic solution of one per cent. strength, commencing with a dose of one minim three times a day, gradually increased up to five minims. Improvement was almost immediate, and in ten days the patient was able to walk to his work. A complete recovery ensued.

ABDOMINAL HYSTERECTOMY WITH CLAMPS—A RAPID AND SAFE METHOD OF REMOVING THE UTERUS.[1]

By EMORY LANPHEAR,* M.D., Ph.D.,

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In discussing the subject of hysterectomy we are compelled to dismiss Freund's operation (dropping the stump of the amputated uterus into the abdominal cavity) because the death-rate is so alarmingly high. The question, therefore, narrows itself to: Which is preferable—amputation close to the cervix with fixation of the stump in the lower angle of the wound, or total extirpation? My answer is: Unquestionably the latter. Those who, like Price, of Philadelphia, have had such satisfactory results from ventral fixation of the stump, reducing the mortality-rate from an average of about eighteen per cent. in reports from all operations—good, bad, and indifferent—to between three per cent. and four per cent., naturally feel wedded to the method, and do not like to try any other as long as their death rate is so low: yet all admit that it has its disadvantages, and that it is wholly unsurgical in character. To leave a stump that is bound to slough, to possibly allow of septic infection, to permit in some cases the formation of a fistula or ventral hernia, and to do an operation that certainly (in many cases) does not completely restore to health—surely a method including these possibilities is not an ideal one. And I have witnessed everyone of these bad results—some in the practice of the most skilful operators the world has ever known: a huge, purulent collection about the stump with septic fever in the hospital of one; a fistulous tract from the umbilicus to the vagina in another; a tremendous hernia in still another; and other disagreeable symptoms in many others. The patient not infrequently suffers greatly from pain produced by the dragging pedicle in the abdominal scar, and from pressure of the fixed stump upon the distorted pelvic organs. Besides all these, abdominal hysterectomy by extra-peritoneal fixation of the pedicle means a long and tedious convalescence, no patient being able to leave her bed before the end of the sixth to the ninth week; and last of all, even the most skilful operators consume much time in making and satisfactorily fixing the pedicle. I have seen Joseph Price occupy one hour and seventeen minutes in completing a hysterectomy in a case I would not regard as especially difficult. Now, if an operation can be devised to overcome all of these difficulties, without equally strong objections, should it not be adopted? Surely! And I believe that total extirpation does this, for most cases at least, and is destined to supersede every other form of abdominal hysterectomy: especially for the reason that it will, in skilled hands, prove even more safe than operation with extra-peritoneal fixation of the stump—almost as safe as ovariotomy.

Having determined to do a total extirpation, one has three methods from which to select:

1. The operation practised by Péan.
2. The operation originated by Eastman.
3. The operation devised by myself.

The Péan Operation.—The Péan method consists of two distinct operations: First, a supra-pubic hysterectomy with wire on the stump, and second, a vaginal "hysterectomy" for removal of the cervix, stump, and wire. Briefly described the procedure is this: After opening the abdomen the tumor is drawn upward by means of a long curved trocar or corkscrew, and an elastic ligature thrown around the uterus as close as possible to the cervix, and fastened by a pair of forceps. The uterus is then resected as close to the ligature as is safe, the bladder and rectum dissected off, all the little vessels belonging to them being tied or compressed. A metal ligature is then placed below the elastic constrictor, tightened firmly by an assistant and twisted. The stump is now cut down as

[1] Read before the Tri-State Medical Society, at Keokuk, Ia., April 5, 1893.

close to the metallic ligature as is practicable without danger of losing it, and the stump and wire dropped into the pelvis; the abdominal wound is then closed and dressed. Extirpation of the cervix, wire, and stump is then made through the vagina, after the manner of a vaginal hysterectomy—by ligating on each side and cutting away.

This is an excellent operation for the removal of very large fibrous, fibro-cystic, or interstitial uterine tumors, and I have employed it with much satisfaction; but it takes a long time—not less than an hour, even by a rapid operator; so that by reason of serious continuance under an anæsthetic, the long exposure of peritoneum to the air, and the aggravated shock of a tedious operation, the mortality has been a little greater than that of abdominal hysterectomy with fixation of the pedicle.

The Eastman Operation.—Eastman, of Indianapolis, has originated, and practised successfully in a number of cases, a method of total extirpation that should be followed in most cases of removal of the uterus through the abdomen. It has been adopted by such operators as Martin, Bardenhauer, and Guermonprez. I have made the operation a number of times, and have assisted my friend, Dr. H. C. Crowell, of Kansas, in other cases, and I must say I regard it as the ideal method. Tersely given, the method is this:

After the abdomen is opened both ovaries and tubes are ligated and cut away, and the peritoneum divided for two or three inches across the tumor (or uterus) just above the vesico-uterine fold, and correspondingly behind; when this has been done a wire or elastic ligature is thrown around the uterus, at the point of division of the peritoneum, and tightened. The peritoneum is then stripped down in front, the bladder carefully dissected away from the uterus, and an opening made into the vagina; a similar separation of rectum from uterus is made, and the peritoneum slipped back on the broad ligaments so that all ligatures are either below or behind the peritoneum, instead of including it in their grasp. Three sets of ligatures (or more if necessary, which is rare) are then passed on each side, including all the vessels and extending through to the vagina; one end of each ligature is left long, and as soon as tumor and uterus have been cut away these ends are carried out through the vagina; by slight traction on these ends the peritoneal edges are easily brought into apposition, and can be rapidly coapted by a continuous catgut suture, thus entirely shutting off the abdominal cavity from the vagina, and preventing any possibility of adhesion of gut to raw surface. The wound in the belly-wall is closed, the vagina irrigated and packed with gauze, the silk ligatures being allowed to slough out and come away per vagina.

In this method there is practically no hemorrhage, the shock is not so intense as in the Péan operation or ordinary abdominal hysterectomy with a pedicle, the difficulties encountered can readily be met by anyone familiar with complicated operations in the pelvis, the time is not quite so great, and convalescence is much more satisfactory than in the operation usually made.

But we who have removed the uterus many times, have more than once wished for a method by which we could speedily terminate an operation always full of anxiety to the operator, and always too prolonged for the safety of the patient; the high mortality that has prevailed in hysterectomy by the most approved method (that of fixation of pedicle in lower angle of wound) has deterred many from advising the operation in patients greatly weakened from disease, or suffering from cardiac or renal lesions which render prolonged anæsthesia highly dangerous. Pozzi, in his most valuable work on gynecology, condemns hysterectomy in: 1, cases where there is excessive debility; 2, advanced age; 3, where many vascular adhesions exist; 4, complications of cancer of the cervix with tumor of the body—this last, he says, being attended by frightful mortality because relapse is certain.

In the first three of these groups the source of danger lies in the length of time required for complete ablation of the uterus and its appendages. Those who are familiar with hysterectomy have said that if the operation could be so simplified as to be done inside of a half hour and without hemorrhage, the high death-rate might be reduced to about that of ovariotomy, viz., three per cent. to five per cent. in skilled hands. In the last of these groups (cancer of the cervix with tumor of the body) recurrence takes place mainly, I think, from the fact that in the usual operations some infected tissue remains behind. Now, if an operation can be made which overcomes the matter of time in the first cases, and allows such careful inspection as to permit removal of all infected tissue in the last cases, many operations can be made successfully that would otherwise be unjustifiable. It has been my very good fortune to originate such a method, a rapid and safe way of removing the uterus in certain cases where the Eastman operation is not advisable or practicable, and I take pleasure in presenting to you five specimens, representing various forms of uterine tumors, together with a brief description of each. One case died from too late removal of the clamps, otherwise I should have an unbroken record.

The manner in which I came to adopt the method may not prove uninteresting. In the summer of 1890, while removing a fibro-cystic tumor of the uterus at the City Hospital, in Kansas City, my ligature, including the circular artery, slipped off just as I cut away the uterus, and in an instant pelvis and vagina were filled with blood; a sponge was inserted and a clamp pushed up through the vagina; by this was caught the bleeding vessel, but in such a way that the clamp had to be left on for thirty-six hours to prevent return of hemorrhage. Subsequently, in discussing the case with my confrère, Dr. J. F. Binnie, of Kansas City, we agreed that if such an expedient proved satisfactory in cases of emergency it should be equally advantageous in certain cases of selection, and so I have found it. The operation is as follows:

The Lanphear Operation.—*Preparatory Treatment.*—The patient should be admitted to the hospital two days before the operation and put to bed. Two nights before the operation compound licorice powder (or magnesium sulphate) is given to thoroughly evacuate the bowels; this dose is repeated the evening prior to operation, at which time the patient is given a bath and the abdomen and pubes shaved, scrubbed with soap and water, dried, iodoform rubbed freely in, and all covered with a pad of iodoform gauze; if the patient be extremely nervous this preliminary cleansing may be dispensed with, but is better done. On the morning of operation the rectum is thoroughly washed out with a copious enema, with a vaginal douche of hot boric-acid solution. The patient is put under the anæsthetic in her own bed and then removed to the operating-table. The abdomen, pubes, vulva, and inner sides of the thighs are again scrubbed with soap and water, dried, and washed with sulphuric ether. At this point the hands of operator and assistant, previously well scrubbed, are washed with a saturated solution of potassium permanganate until of a deep mahogany color, then decolorized with a strong solution of oxalic acid. The same solutions are then used upon the woman, and final rinsing of hands, abdomen, and vulva made with a solution of bichloride of mercury, 1 to 1,000; the vagina is washed out with the same solution. At this point antiseptics disappear from the operation, hot water being used for irrigation, sponges, etc. No antiseptic can be used in the abdomen—we must have ideal asepsis and not depend on antiseptic solutions.[1] The parts are surrounded by towels wrung out of hot water, each leg

[1] I recently read an account in the *Kansas Medical Catalogue*, of an exploratory laparotomy (for enlarged spleen) where the surgeon irrigated the abdomen with hot bichloride solution and put in a drainage-tube! The reporter of the case naïvely adds: "The patient died a few hours later!" Of course she did; how could it be otherwise? Some men who enjoy considerable prominence do not seem to understand these things. I have had surgeons of considerable experience inquire: Why all this detail in preparing the patient? I answer that no other method than that I have described can be regarded as absolutely safe, and in abdominal surgery no operator can afford to neglect even the slightest point. As much frequently depends upon the preparations and after-treatment as on the operation itself.

and the chest being first wrapped in blankets, and the patient is ready for operation.

Instruments.—The instruments required are knife, two scissors (one curved and blunt-pointed and one straight), two abdominal retractors, one perineal retractor, one large and one small vulsellum, two clamps for the ovaries, two Polk clamps, one blunt herniotomy needle (curved to the left) for carrying the ligatures, two dissecting forceps, hæmostatic forceps, needles, and a *serre nœuds* with wire (or an elastic ligature) to be prepared for either a Péan or Eastman operation, if necessity arise. These instruments must be boiled for five minutes in a solution of carbonate of sodium (common "washing soda," not the bicarbonate) one teaspoonful to the quart of water, and then washed in cold sterilized water and kept immersed in hot water during the operation. If silk be used, it also must be boiled. During the operation neither operator nor assistant must touch anything which has not been sterilized—this is the fundamental rule in my operating-room and cannot too often be repeated, even by experienced operators.

Accessories.—Plenty of catgut must be at hand, large, medium, and small. This must be juniperized—carbolized gut is never to be trusted. The "sponges" should be made of cotton carefully wrapped in iodoform gauze, and at least twenty-four in number. Hot water in basins, and irrigators and cold sterilized water in pitchers, also iodoform and dressings must be close by. Two assistants are useful, but one may do, besides the anæsthetist, and one nurse.

Operation.—An incision is made in the abdominal wall close to the middle line, four inches or more in length; not more than thirty seconds to one minute should be required for opening the belly.[1] As soon as exposed the ovary and tube of one side are caught and pulled into the opening, and a clamp applied to their outer side, as close to the uterine body as possible. A heavy catgut ligature is passed through the broad ligament, enclosing about an inch or more of tissue, tied, and a cut made between the ligature and the clamp; this suturing may be continued downward into the pelvis as far as is convenient. The other side is then treated in the same manner, when the uterus with its attached tubes and ovaries, with the clamps, may be brought up into the opening. Unless this preliminary suturing and dividing is done, much valuable time will be lost in attempting to urge the fundus into view (in small tumors), or to reach the attachment of the bladder to the uterus; because of the extreme tension of the broad ligament only one side of the uterus can be brought into view at one time, and no amount of force can lift it up until the broad ligaments are divided. But as soon as this is done the circular shape of the bladder disappears, the organ extending itself outward and backward, the corrugations of peritoneum upon its border ceasing to be prominent. The fundus is now tilted backward, a cut made transversely across the uterus, through the peritoneum, and separation of bladder from womb made methodically and completely. This line of incision should be made just behind the vesico-uterine fold, which is easily recognized by touch; this dissection is made partly by fingers and partly with blunt-pointed, curved scissors, the bladder being pushed away little by little, below and in front. When the region of the os tincæ is reached a nurse separates the legs of the patient and the operator slips one finger into the vagina, locates the proper point near the os, and pushes the scissors through the mucous membrane; this opening is extended across the anterior surface of the cervix, as in the initial stage of a vaginal hysterectomy, save that the cut is made from above instead of below. The uterus now being pushed strongly forward, a similar separation of the uterus from the rectum is made; but not nearly so much care is required, as the distance is short and perforation of the rectum not so easy. When the cul-de-sac of Douglas is well opened the uterus is given into the hands of an assistant, who pulls it upward and to one side; a Polk clamp (such as is used in vaginal hysterectomy) is inserted through the vagina with one hand, while the other is within the pelvis to guide the blades into place. The clamp is made to hug the uterus closely so as to avoid catching the ureter; its point must come up to the ligature that has already been tied in the broad ligament. (Some difficulty may be experienced in getting the blade which goes through the posterior opening into place, and I am not sure but inexperienced operators would do well to employ a curved clamp rather than the straight clamp of Polk.) When all of the tissues lying at the side of the uterus, from cervix up to the cut in the broad ligament, are found to be within the grasp of the blades, the clamp is closed and the handle given to the nurse; the uterus is carried over to the other side, the fellow-clamp applied in the same manner, and the uterus, tumor, tubes, and ovaries cut away, the scissors cutting as close to the clamps as possible. The mass is extricated through the abdominal opening, the irrigator used from above until all clots and débris are washed out of the vagina. The pelvic cavity is then carefully dried and bladder and rectum allowed to fall together. If it be seen that some raw surface is left exposed in the pelvis the peritoneum of the posterior wall of the bladder may be united to that of the anterior wall of the rectum by a few catgut stitches; but I have thus far found in practice that this step is unnecessary, particularly where extreme haste is required, all raw surfaces being hidden by the bladder falling backward, so that adhesion of intestine is not a possibility. The peritoneum is closed by a continuous catgut suture, and the wound sewed with either interrupted catgut stitches or silk worm-gut—the former by preference. The usual dressings of iodoform, bichloride gauze, cotton, and surgeon's plaster are then applied, the vagina gently sponged and loosely packed with iodoform gauze, and the clamps tied and surrounded as in cases of vaginal hysterectomy.

As thus performed, supra-vaginal hysterectomy is scarcely more serious than vaginal, the cut through the abdominal wall adding but an insignificant amount of danger to the operation. In cases where the tumor is too large to admit of this procedure the elastic ligature may be applied, amputation done, then the cuts into the vagina made in the manner described and the clamps applied. In cases of cancer of the neck complicated with tumor of the body (as will be seen by examination of the specimens), I have heretofore made the operation described, but I believe it will be better surgery to do the Péan operation in such cases, removal of the cancerous tissue per vagina containing no possibility of infection by mere contact, as might be the case if it touched peritoneum.

If there are reasons why the minimum time of exposure of peritoneum should be secured, a preliminary step may be made, namely: the cuts may be made before and behind the cervix through the vagina, as in vaginal hysterectomy; when completed nearly to the peritoneum, the abdomen may be opened above and the further steps carried out.

Cases.—Specimen 1 is a sarcoma of the body of the uterus taken from a patient thirty-six years of age, never pregnant, with very close pelvis. The woman presented the usual symptoms of a uterine tumor—repeated and exhausting hemorrhages, expulsive pains, headaches, etc. For weeks before admission to hospital she had been in bed, and was *in extremis* when brought to the city. The uterus was found eight inches in depth, nearly as wide, bleeding readily, and closely bound down by adhesions from an old pelvic peritonitis. She had suffered for years from mitral regurgitation of severe grade. In spite of this grave condition, I made hysterectomy by this method; occupied a comparatively short time in operating, and sent patient home in excellent shape four and a half weeks afterward.

Specimen 2 is an œdematous myoma which weighed

[1] I have seen, more than once, fifteen to twenty minutes of valuable time lost in entering the abdomen—this is inexcusable—chronic surgery.

eighteen pounds when fresh. The history was one of long-continued hemorrhages, beginning at the age of forty four and persisting until the forty-eighth year, with general ill-health. The patient was in desperately bad condition, but the operation passed without any accident or bad feature. A wire was put around the cervix below the growth and tightened, the uterus opened, and the tumor "shelled out" in spite of the great area of attachments as shown in the specimen, and then the operation completed in the usual way. Owing to the necessity for opening the womb and separation of tumor from the uterine walls, fifty minutes were consumed in the operation.

Specimen 3 is one of multiple fibroma removed from a patient aged thirty-five, who was in excellent health, and had no complaint save that of rapid growth of a nodular tumor of the abdomen. The only peculiar thing about this case was the ease and rapidity of operating. There were no adhesions, the tumor was easily accessible as soon as the ovaries and tubes were cut loose. No inflammatory deposits being present, separation was easily accomplished, and the operation was completed in twenty-seven minutes.

Specimen 4 is a fibro-cystic tumor of the uterus, complicated by cancer of the neck. The cysts were very large, one containing several pints of fluid, and the fibrous part too large to be extracted through a narrow pelvis. The cancerous mass was therefore curetted away, and the vagina rendered as nearly pure as possible, and the operation made from above, with clamps from below. Little difficulty was experienced in completing the whole operation in a little more than forty minutes.

The clamps were left on somewhat more than forty-eight hours, and in removal tore away some of the tissues undergoing pressure necrosis: secondary hemorrhage at once carried the patient to the great beyond. I am sure, if the clamps had been taken away in about thirty hours —before the tissues became so softened—this accident would not have occurred. If hemorrhage is to be arrested at all by clamps, twenty-four hours will see all danger passed, and the forceps should be removed.

Specimen 5 is a myoma of considerable size, associated with epithelioma of the cervix. As will be seen, the tubes and ovaries are still attached (as in the other specimens also), and microscopic examination shows cancerous tissue in the tubes, thus emphasizing the point made a few paragraphs back: cancer of the cervix means that the ovaries and tubes should be removed whenever operation for radical cure is made.

Conclusions.—1. Total extirpation is always preferable to supra-pubic hysterectomy with ventral fixation of the stump.

2. In cases of large tumors the Eastman operation is the ideal method of hysterectomy.

3. When cancer of the neck is complicated with large tumor of the uterus, the Péan operation should be preferred.

4. Whenever there is special reason for extreme haste the Lanphear operation gives the best prospect for recovery.

5. The advantages of the latter method are: (*a*) It is the most rapid method yet devised for supra-pubic removal of the uterus; (*b*) it leaves no pedicle to become necrotic and give rise to septic infection or develop a fistula; (*c*) there is not so much danger of hemorrhage as after ovariotomy, and no more than in the Péan method; (*d*) it is not nearly so complicated as many other abdominal and pelvic operations; (*e*) it is the safest method of total extirpation, at least in the hands of those not wholly familiar with tying ligatures deep in the pelvis; (*f*) it affords more rapid convalescence than does any other form of hysterectomy.

Glycerin for a Cough.—In severe paroxysms of coughing from whatever cause, a tablespoonful of glycerin in hot milk or cream will give speedy relief.—*Annals of Hygiene.*

THE OPERATIVE TREATMENT OF HERNIA IN CHILDREN, WITH A REPORT OF FIFTY-ONE CASES.

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ASSISTANT SURGEON TO HERNIA DEPARTMENT OF THE HOSPITAL FOR RUPTURED AND CRIPPLED; SURGEON TO THE NEW YORK CANCER HOSPITAL.

During the past two years 2,174 new cases of hernia, occurring in children under the age of fourteen years, were treated at the Hospital for Ruptured and Crippled. In addition to these cases, a much larger number, recorded in preceding years, yet returning for further observation and treatment, were seen. As the great majority of these cases were treated by mechanical means, and hence have but an indirect bearing upon the subject of this paper, they will be referred to only in the briefest way.

In looking back over the various operations devised for the cure of hernia during the last decade, we are struck with two main facts which go far toward explaining the present attitude of many of the profession in regard to operative procedures. This attitude may be characterized as one of doubt, or at least of very limited faith, and the two facts that have been referred to as explaining it are, first, the too indiscriminate application of imperfect methods; second, the tendency to expect uniformly perfect and lasting results, and falling short of these, to consider all such operations failures. There is really no reason why the operation for the cure or relief of hernia should be judged by a standard entirely different from that adopted in deciding the merits or defects of other operations. Few, if any, are so successful that failures do not sometimes occur, and it seems to me that operations for the cure of hernia should stand or fall according as they fulfil these two conditions of all operations (except emergency): First, a mortality either *nil*, or not greater than that associated with the condition prior to operation. Second, a reasonable hope of success, either in the shape of cure or of relief. Furthermore, there is a tendency to estimate the value of the operation from the results of the older and less perfect methods, without recognizing the great advances made during the past four years.

Time will not permit me to review or criticise the various methods that have been, and still are, employed to cure hernia by operation, and even if it did, the object of this paper would be better accomplished by confining myself chiefly to personal and clinical observations.

I shall assume that the majority of physicians and surgeons admit, under certain conditions, the advisability of operating upon hernia in adults, however they may differ as to the extent and limitations of such conditions.

The question of applying the same operative procedures to children cannot be disposed of so easily, for the reason that up to very recently we have had insufficient data for the drawing of any conclusions of value.

Indications and Contra-indications for Operation.—The indications for operation may be classed as follows:

1. Cases of adherent omentum.
2. Cases complicated with reducible hydrocele.
3. Cases irreducible and strangulated.
4. Cases unable to obtain the care and attention requisite for successful mechanical treatment.
5. Cases where mechanical treatment has been faithfully tried for a number of years without benefit.

These five classes seem to me to embrace all hernia in children to which operative measures should be extended. It now remains to look at these indications more closely, and then we shall examine the contra-indications in the light of clinical experience, in order that we may judge how far they obtain.

Adherent Omentum.—This condition, though much less frequent in children, is occasionally met with, and when present interferes materially with mechanical treatment.

Reducible Hydrocele Associated with Hernia.—This is not a very rare complication, and after repeated and persistent attempts to treat such cases by means of a truss, I am convinced that operation is the only proper method of treatment.

Irreducible and Strangulated Hernia.—In strangulated hernia nearly all will admit the advisability of operation, after taxis, under anæsthesia, has failed to give relief. The operation, if done early, is not dangerous, while the delay necessary to the carrying out of any other method of treatment is not infrequently responsible for the fatal results.

Among the poorer classes seen at a dispensary clinic there are a number of cases without parents or anyone sufficiently interested or intelligent to give the necessary attention to a truss; and these cases I believe to be proper subjects for operation, mechanical treatment having been thoroughly tried.

The supposed contra-indications are: 1. The general belief that all cases of hernia in children can be cured without operation, a belief that is not supported by facts, as shown by a careful analysis of 600 cases under the age of ten years treated at the Hospital for Ruptured and Crippled. 2. The belief that strangulated hernia almost never occurs in children, and hence the condition is not dangerous. Strangulation, though infrequent, does occur, four cases having been seen at the hospital during the past year. The third and chief objection is that operation is attended with greater risk in children, and that the final results are less satisfactory.

Karewski, of Berlin, has recently collected and tabulated 81 cases of operation for hernia in children under five years of age. Of these, 74 were reducible and 7 strangulated. There were 5 deaths, of which 4 occurred in strangulated cases, and the fifth was the result of shock from prolonged operation, in a child two years of age. The mortality, then, in the 74 non-strangulated cases was 1.3 per cent.

As to wound-healing and final results, we find that 39 cases were well and free from relapse one year and longer after operation, while 7 relapses were noted. Suppuration occurred in thirty-three per cent. of the cases; yet when we consider the number of different operators represented, together with the fact that the operations date back for a period of ten years or more, the wound-healing is seen to be quite as good as in adult cases under similar conditions. In fact, the results are better than those obtained in Billroth's Klinik—136 cases, reported by Haidenhain [1] in 1890—in which suppuration occurred in fifty per cent. and relapse in thirty per cent. To these 81 cases collected by Karewski I have added 169 new cases where operation has been performed under the age of fourteen, making a total of 250.

Of these 250 cases—

	Cases.	Relapses.	Deaths.
Bassini operated upon	36	1	0
Poor (of New York)	24	1	0
Bayer	11	0	0
Manley	7	1	0
Karewski (own cases)	9	0	0
Karewski (collected cases exclusive of Bassini's)	50	6	1
Championnière	18	0	0
Halstead	28	2	0
Bull, W. T.	21	8	1
Coley	46	2	0
	250	21	2

Thus we find in 250 non-strangulated cases but two deaths, or a mortality of $\frac{8}{10}$ of one per cent., or less than the lowest mortality of any adult statistics. But nineteen relapses, or 8.6 per cent., were observed. The two deaths that occurred were both in cases under two years of age, and both were irreducible and complicated with extensive adhesions, necessitating a prolonged operation.

Personal Observations.—During the past fifteen months at the Hospital for Ruptured and Crippled I have operated upon 46 cases of hernia in children, 42 of which were non-strangulated and between the ages of four and fourteen years. The 4 strangulated cases were aged eight weeks, eight months, seven and one-half months and one year, respectively. There has been no mortality in the non-strangulated cases although many were difficult and complicated, and but a single death in the strangulated cases, that of a baby eight weeks old. The hernia was of the cæcal variety, and there had been acute strangulation with constant vomiting for upward of twelve hours, and the infant was practically in collapse when first seen. It revived after the operation and lived three days.

Wound Healing.—Absolute primary union occurred in 44 of the 46 cases, and the suppuration in the 2 remaining was due to the use of silk instead of animal suture. Nearly all of the cases were up and about the wards at the end of two and a half weeks. The eight months' baby that was operated upon for strangulation left the hospital at the end of one week, union by first intention having occurred.

Method of Operation.—The Czerny-Risel method was employed in a few of the earlier cases, but the great majority, thirty-two in number, were operated upon by the Bassini method, kangaroo tendon being used for the buried sutures. This method has given by far the most satisfactory results, and when once familiar with its technique it is not difficult to perform.

Upon the choice of suture material, next to the choice of method, depends, I believe, the success or failure of the operation. Silk is regarded by many as the best kind of suture, but the majority of surgeons, in spite of every precaution, have been unable to bury it in the hernial canal without causing subsequent trouble. In Billroth's 136 cases (Czerny method) silk was used instead of catgut, and in 77 cases followed up 38, or fifty per cent., suppurated. It was repeatedly tried at the New York Hospital with the same results, and in the only 2 cases of suppuration which occurred in my 46 cases, the result was due to the silk suture. I do not deny that it can be used without producing sinuses and interfering with primary wound-healing in some cases, but I believe that the danger is a real one, and that since we have other and better suture material, silk should be discarded in hernia operations.

The kangaroo tendon, or the ox-peritoneum, fulfils all the requirements for a buried suture in the hernial operation. They have no tendency to produce slow-healing sinuses, as is the case with silk, and to a less degree with silkworm-gut, and yet they remain unabsorbed for a period of three months or more, as shown by the recent experiments of Ballance and Edmunds,[1] a period sufficiently long to insure a thorough agglutination of the parts.

It has been claimed by the followers of Macewen and others that it is immaterial whether or not the suture is absorbed after ten days or two weeks, since sufficient union will have taken place at the end of that time. Clinical experience will not bear out this statement. Macewen's own brilliant results cannot be taken as evidence, since he used not only catgut of a large size but chromicized in addition, so that it probably remained unabsorbed for one or two months. Directly bearing on this point may be cited the recent experiments of Busse [2] on the suture of tendons in animals. His experiments prove that union of tendons seldom if ever occurs within ten weeks. The successful closure of the inguinal canal depends chiefly upon the more or less firm union secured between Poupart's ligament—a tendinous structure—on the one hand, and the tissues of the internal oblique muscle and conjoined tendon on the other. There is no evidence to show that such union occurs in the short space of ten days. On the contrary, there is much to prove that it does not.

Three years ago, at the Hospital for Ruptured and Crippled, sixteen children were operated upon with catgut sutures; six recurred within the first year, most of them shortly after the operation. I cannot but think that buried kangaroo sutures secure better approximation of several layers, and therefore a more permanent closure than the so-called "crossed suture" advocated by Dr. G. R. Fowler, that has to be withdrawn at the end of five or six weeks. Another advantage is that the period of

[1] Archiv. f. klin. Chirug., 1890.

[1] Ballance and Edmunds: Ligature of Arteries in Continuity, 1892.
[2] O. Busse: Deutsche Zeit. f. Chir., 1891–92, 31.

required for the healing of the wound, is shortened from three to four weeks, an important consideration with most patients.

Wound Treatment.—No drainage has been employed in any of my cases, and I believe it to be unnecessary.

In addition to the regular antiseptic dressings of iodoform and bichloride gauze, a plaster-of-Paris casing extending from the umbilicus to the foot is applied, and to this fact is undoubtedly due, in a large measure, the uniform success in obtaining primary healing. The dressing is left undisturbed for eight days, at the end of which time the plaster is removed and only an ordinary muslin spica applied.

As fine catgut is used in closing the skin portion of the wound, the dressing does not have to be changed earlier to remove the stitches.

Final Results.—The cases have all been operated upon during the past eighteen months, it is therefore too early to estimate the number of permanent cures. All the cases have been kept under observation, and most of them recently seen. Two relapses have occurred, one following a Czerny operation, the other a Bassini. Both failures were early cases, and due to faulty technique and the use of silk suture, which caused suppuration. Both occurred within three months after operation. A Bassini operation was performed upon the case of relapse from the Czerny method, and the patient was recently seen, perfectly sound, one year later.

The Bassini method was adopted because no other method has given such brilliant and permanent results. Bassini's own cases, 251 in number, all but 4 of which were traced, showed but 7 relapses and no mortality; 108 were free from recurrence from one to four and a half years afterward, while 47 had passed the two-year limit.[1]

The results of Championnière, Macewen, and Kocher, although exceedingly good, are inferior to Bassini's. Whatever method is adopted, I believe prompt primary wound-healing essential to success, and that all variations in technique that interfere with such healing should be abandoned. In proof of this, most of Halstead's 6 relapses (in 58 cases) failed to heal primarily, and the same is true of nearly all of Kocher's recurrences.

In addition to the 32 cases in children, I have operated upon 16 adults by the Bassini method. Of these 48 cases, but one relapse, already referred to, has taken place, and I obtained perfect primary union in 46 successive cases.

Limitations as to Age.—I believe that few cases other than strangulation require an operation under the age of four years. There are few under that age that cannot be controlled by a truss.

My 46 cases have been arranged in tabular form, and I shall not give them in detail. Several of them, however, are of sufficient importance to deserve special notice.

In 6 cases the hernia was of cæcal variety.

Two were the strangulated. Three occurred in children, aged four years, and one in a child of ten. All were very large, and it was absolutely impossible to control them with a truss. One case was complicated with spinal disease and incontinence of urine, yet primary union was obtained. In another, a long appendix was found adherent to the sac, almost to its tip. In one strangulated case the hernia was removed. In three cases adherent omentum, and in four reducible hydrocele of the sac existed.

A form of hernia rarely found in children, viz., femoral, occurred in two cases, one in a boy, aged seven. He had an old inguinal hernia on the opposite side. Both were operated upon the same day. In the femoral the sac was ligated high up and the opening closed with a purse-string suture of kangaroo tendon. The boy was up and about at the end of two and a half weeks. The case of strangulated hernia in the child, one year old, was of exceptional interest. The condition at the time of operation was very bad. The Bassini operation was quickly done under chloroform anæsthesia. The child reacted well, but the temperature steadily rose, and the following morning recorded 107° F., with a pulse of 150 to 160, and respiration 40 to 50. The abdomen was distended and tender, and the child was apparently nearly moribund. It was treated with half-hour tub-baths at a temperature of 100° F., cooled down to 95° F., and repeated when the temperature rose above 104° F., or about every two or three hours, for two days. After two days the child began to improve, and recovery was interrupted. In spite of the unfavorable conditions the wound healed by absolute primary union.

Operations for Hernia in Children, by W. B. Coley.

No.	Diagnosis.	Sex.	Age.	Nature of hernia, and history.	Duration.	Truss.	Date of operation.	Operation.	Operator.	Results.
1	Incarcerated omental with effusion.	M.	8 yrs.	Right inguinal; size, egg.	Congenital.	Yes.	Dec. 12, 1891.	Czerny operation. Hydrocele of cord in addition to hernial sac; small bit of incarcerated omentum; no drainage.	W. B. Coley.	Primary union, 3 weeks; no recurrence, 6 months.
2	Large oblique inguinal hernia; reducible.	M.	13 yrs.	Size, orange; right; not held by truss.	3 years.	Yes.	Dec. 28, 1891.	Bassini operation. Silk suture; no drainage.	"	Suppuration; silk ligature came away, 5 weeks; recurrence, 5 weeks.
3	Reducible; ioguinal oblique.	M.	6 yrs.	Egg; portion not reducible.	2 years.	Yes.	Jan., 1892....	Czerny. Hydrocele of cord sac found alongside of true hernial sac; no drainage.	"	Primary union; no relapse, 1 year.
4	Reducible; inguinal oblique.	M.	8 yrs.	Small egg; not held with truss; left.	Congenital.	Yes.	Jan., 1892....	Czerny. Hydrocele of cord sac with true hernial sac; drainage.	W. T. Bull.	Slight suppuration; no recurrence, 1 year.
5	Inguinal; reducible; oblique.,	M.	9 yrs.	Small egg; not held; right.	4 years.	Yes.	Jan., 1892....	Czerny. No drainage; silk sutures.	W. B. Coley.	Primary union; sinus soon formed, and silk sutures; came away, 3 months; truss could not be worn, and slight recurrence, 3 months; Bassini's operation; well, 1 year later.
6	Inguinal; reducible; oblique.	M.	13 yrs.	Egg; not held.....	11 yrs.; probably congenital.	Yes.	Jan., 1892....	Czerny. No drainage; chromicized catgut for canal; old congenital sac and new acquired sac found.	"	Primary union; no recurrence, 1 year.
7	Inguinal; reducible; oblique.	M.	10 yrs.	Small egg; left; not held.	Congenital.	Yes.	Feb., 1892....	Czerny. Small sac of old hydrocele of cord; chromic acid catgut; no drainage.	"	Primary union; no relapse, 1 year.
8	Irreducible; adherent omental.	M.	7 yrs.	Small egg; not held...	3 years.	Yes.	March, 1892..	Bassini. Large mass of adherent omentum removed; chromicized catgut; no drainage.	"	Primary union; sound, 1 year.
9 10	Very large double inguinal; reducible.	M.	7½ yrs.	Left, orange; right, egg; not held.	4 years.	Yes.	April, 1892...	Czerny. Both sides; one operation; no drainage; chromicized catgut.	"	Primary union; sound, 11 months.
11 12	Left inguinal, right femoral.	M.	7 yrs.	Inguinal: cured by truss; recurred; egg; femoral; 6 mos.; not held; almond.	3 years.	Yes.	April, 1892...	Bassini. Operation for inguinal; purse-string suture to crural canal in femoral; kangaroo tendon suture.*	"	Primary union, both sides, 3½ weeks; sound, 1 month.

[1] The kangaroo tendon in all cases was obtained from Dr. H. O. Marcy, of Boston, to whom great credit is due for bringing to notice the merits of this suture material.

[1] A recent personal communication shows that Bassini has operated upon 560 cases, with no mortality and but 15 relapses.

Operations for Hernia in Children.—Continued.

No.	Diagnosis.	Sex.	Age.	Nature of hernia, and history.	Duration.	Truss.	Date of operation.	Operation.	Operator.	Results.
13	Large inguinal; reducible; oblique.	M.	13 yrs.	Wore truss several years; not held: goose egg.	11 years.	Yes.	May 5, 1892..	Bassini operation. Very large sac, admitting two fingers; small bit of adherent omentum at neck of sac; kangaroo tendon suture.	W. B. Coley.	Primary union; sound, 10 months.
14	Large inguinal; irreducible; adherent omental.	M.	7½ yrs.	Right; small egg.....	Several years.	No.	June 6, 1892..	Bassini operation. Kangaroo tendon; sac adherent to testis; tunica vaginalis opened; sutured with catgut; sac removed; omentum excised.	"	Primary union; sound, 1 year.
15	Inguinal; reducible.	M.	4½ yrs.	Truss; not effective...	2 years.	Yes.	June 14, 1892.	Bassini operation. Kangaroo tendon.	"	Primary union; well, 1 year.
16	Right inguinal; relapsed case (No. 5 of Czerny operation).	M.	4 yrs.	Truss; painful..	3 mos.	Yes.	June 21, 1892.	Bassini. Tendon suture.....	"	Primary union; perfectly firm 1 year after.
17	Right inguinal; strangulated.	M.	8 mos.	Strangulated	Congenital.	Yes.	July 8, 1892..	Czerny. Catgut suture... ..	"	Primary union; well 9 months after.
18	Right inguinal... ...	M.	10 yrs.	Reducible		Yes.	July, 1892....	Bassini. Kangaroo tendon..	Charles W. Wilson, House Surgeon.	Primary union; sound, 9 months.
19	Left inguinal..	M.	14 yrs.	Goose egg.....	Congenital	Yes.	July, 26, 1892.	Bassini. Kangaroo tendon; portion of sac left and sutured over testis.	W. B. Coley.	Primary union; sound, 9 months.
20	Right inguinal.....	M.	10 yrs.	Reducible; size, fist...	Congenital.	Yes.	July, 26, 1892.	Bassini. Complicated with reducible hydrocele; half pint fluid withdrawn from sac and abdomen.	"	Primary union; sound, 9 months.
21	Left oblique..	M.	14 yrs.	Reducible; egg.....	1½ year.	Yes.	Aug. 23, 1892..	Bassini. Kangaroo tendon..	"	Primary union; sound, 7 months.
22	Left oblique.....	M.	12 yrs.	Reducible	6 years.	Yes.	Aug., 1892...	Bassini. Kangaroo tendon..	"	Primary union; sound, 7 months.
23	Large cæcal	M.	4 yrs.	Reducible; uncontrollable.	Congenital.	Yes.	Sept. 13, 1892.	Sac sutured and deep kangaroo tendon suture to canal as in Bassini; cord not changed.	"	Primary union; sound, 6 months.
24	Right oblique.....	M.	11 yrs.	Reducible		Yes.	Sept., 1892...	Bassini. Kangaroo.....	"	Primary union; sound, 6 months.
25	Right oblique.....	M.	6 yrs.	Reducible; hydrocele; complicated.	Congenital.	Yes.	Oct., 1892....	Bassini. Kangaroo tendon..	"	Primary union; sound, 5 months.
26	Right oblique inguinal	M.	14 yrs.	Egg; congenital; cured by truss; relapsed 6 months ago.	Congenital.	Yes.	Oct. 29, 1892..	Bassini. Kangaroo tendon; no drainage.	"	Primary union; well, 4 months.
27	Left oblique inguinal.	M.	12 yrs.	Orange; ring admitted two fingers.	Congenital.	Yes.	Nov. 1, 1892..	Bassini. Suture of sac; kangaroo tendon; omentum very troublesome; no drainage.	"	Primary union; sound, 4 months.
28	Right oblique.....	M.	4 yrs.	Small hen's egg; not held by truss.	Congenital.	Yes.	Nov. 4, 1892..	Bassini. Kangaroo tendon: lower portion of sac sutured over testis; no drainage.	"	Primary union: well, 4 months.
29	Right oblique.....	M.	11 yrs.	Egg; not held by truss.	Congenital.	Yes.	Nov. 29, 1892.	Bassini. Kangaroo tendon; no drainage.	"	Primary union; sound, 4 months.
30	Right cæcal.....	M.	4 yrs.	Orange; not controlled with truss; complicated; spinal disease and incontinence of urine.	2 years; acquired.	Yes.	Dec. 26, 1892.	Bassini. Kangaroo tendon; no drainage.	"	Primary union; sound, 3 months.
31	Right oblique.....	M.	8 yrs.	Complicated with undescended testis.	Congenital.	Yes.	Jan. 13, 1893.	Bassini. Kangaroo tendon; testis anchored in scrotum; no drainage.	"	Primary union; sound, 3 months.
32	Right oblique.....	M.	6 yrs.	Size of hen's egg; complicated with reducible hydrocele.	Several years.	Yes.	Jan. 20, 1893.	Bassini. Kangaroo tendon; no drainage.	"	Primary union; sound, 2 months.
33	Left oblique.....	M.	9 yrs.	Size of hen's egg.....	4 years.	Yes.	Jan. 24, 1893.	Bassini. Kangaroo tendon; no drainage.	"	Primary union; sound, 2 months.
34	Left oblique.	M.	14 yrs.	Size of hen's egg.....	2 years.	Yes.	Jan. 27, 1893.	Bassini. Kangaroo tendon; no drainage.	"	Primary union; sound, 2 months.
35	Left oblique.....	M.	7 yrs.	Size of hen's egg.....	2 years.	Yes.	Feb., 1893 ...	Bassini. Kangaroo tendon; no drainage.	"	Primary union; sound, 2 months.
36	Left oblique; strangulated; 24 hours.	M.	1 year.	Size of goose egg.....	Few months.	No.	Feb. 24, 1893.	Bassini. Kangaroo tendon; no drainage; temperature 99° F. next day; cold baths treatment; recovery.	"	Primary union; left hospital end of 1 week; sound at present, June, 1893.
37	Right oblique with undescended testis.	M.	13 yrs.	Size of hen's egg.....	Congenital.	Yes.	Feb. 28, 1893.	Bassini. Kangaroo tendon no drainage.	"	Primary union; sound, April, 1893.
38	Right oblique with undescended testis.	M.	15 yrs.	Size, egg.....	Congenital.	Yes.	March 3, 1893.	Bassini. Kangaroo tendon; no drainage; testis and epididymis separated; testis anchored in scrotum; wire frame.	"	Primary union.
39	Right oblique.....	F.	10 yrs.	Size of hen's egg.....	Congenital.	Yes; 10 years.	March 6, 1893.	Bassini's operation as far as possible in female; kangaroo tendon; no drainage.	"	Primary union.
40	Right oblique, cæcal.	M.	10 yrs.	Size, goose egg	Since 3 months old.	Yes; 10 years.	March 24, '93.	Bassini. Kangaroo tendon; no drainage; appendix in sac and firmly adherent; adhesions separated and sac sutured.	"	Primary union.
41	Right oblique; inguinal.	M.	5 yrs.	Hen's egg.....	Since a few months old.	Yes.	March 31, '93.	Bassini. Kangaroo tendon..	"	Primary union.
42	Right femoral; incarcerated.	F.	14 yrs.	English walnut..	3 years.	No.	April 4, 1893..	Purse string suture of canal, kangaroo tendon.	"	Primary union.
43	Double inguinal...	M.	13 yrs.	Egg; double recurrence from Czerny operation, 1890.	2½ yrs.	Yes.	April 11, 1893.	Bassini. Both sides; kangaroo tendon.	"	Primary union.
44	}									
45	Right inguinal	M.	6 yrs.	Egg.....	3 yrs.	Yes.	April 18, 1893.	Bassini	"	Primary union.
46	Cæcal and appendix strangulated twenty four hours.	M.	7½ mos.	Egg.....	Congenital.	Yes.	May 18, 1893	Bassini. Appendix removed.	"	Primary union.
47	Right femoral.....	M.	11 yrs.	Walnut.....	4 yrs.	Yes.	May, 1893.	Ligature sac; purse-string suture of canal. Bassini.	"	Primary union.
48	Cæcal	M.	4½ yrs.	Goose egg.....	Congenital.	Yes.	June 16, 1893.	Bassini.	"	Primary union.
49	Cæcal and appendix strangulated	M.	8 weeks.	Large hen's egg.....	Congenital.	No.	June 16, 1892.	Child nearly moribund at time of operation; peritonitis already present.	"	Died on third day.
50	Right inguinal... ..	M.	9 yrs.	Egg.....	Congenital.	Yes.	June 23, 1893.	Bassini. Kangaroo tendon..	"	....

In three cases the hernia was complicated with undescended testis. The testis was brought down and anchored in the scrotum. A wire frame was made use of in two cases, and in a third the epididymis was dissected from the testis, thus increasing the length by nearly one inch. The result was very satisfactory as regards the hernia, but in two cases the testis retracted to the external ring.

The question of what is the best method of dealing with the undescended testis complicating hernia is still *sub judice*. There is some ground for believing that the majority of them are functionally of no value, and therefore one is warranted in removing them. We know that this is generally true as regards domestic animals, especially the horse, and Mr. Owens, of Glasgow, has demonstrated the same to be true in several cases in man. Championnière in his 275 cases of hernia, operated upon 10 with undescended testis. In 5 he removed the organ, and in 5 he anchored it in the scrotum by Tuffier's method.

My object in presenting these cases has not been an attempt to prove the advisability of operating upon hernia in children in general, for I believe that most cases can be cured without operation, but rather an effort to show that there are certain cases in children that cannot be cured by mechanical means, and that the operation is practically devoid of risk, while at the same time it gives results superior to those in adults.

It should be remembered that these 46 cases operated upon have been selected from upward of 4,000 cases of hernia in children, and hence represent less than one per cent. of the entire number treated.

18 East Thirty-second Street.

A NEW INSTRUMENT FOR CONTROLLING TONSILLAR HEMORRHAGE.[1]

By H. HOYLE BUTTS, M.D.,

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The instrument which I present to the Section this evening is one designed to be of service to the surgeon in controlling alarming or persistent hemorrhage after tonsillotomy. Although the necessity for such a device is comparatively infrequent, yet, when it exists, it is extremely urgent. That there are occasions, after amputation or incision of one or both tonsils, when some sure method of controlling bleeding is demanded, is evident from the appended list of fifty reported cases in which the hemorrhage was sufficiently profuse to endanger life. Three of these cases terminated fatally.

It is useless for me to discuss here the various safe methods of operation on the tonsils, with which you have become familiar through the writings of Morell Mackenzie, Lefferts, Delavan, Knight, Moure, and others. Sufficient to say, that in this enlightened age, with the perfected tonsillotome and the different applications of the galvano-cautery to this purpose, either for igni puncture or with the loop, as utilized by Knight in his electric tonsil snare, it is indeed unfortunate if the surgeon, with this wide field to choose from, meets with uncontrollable hemorrhage. However, such accidents may and do happen to the most experienced operators, through no negligence on their part. If the subject for operation fails to disclose that he is a hæmophile, and inspection and palpation do not discover to the surgeon that there exist vascular anomalies, other conditions being favorable, it is justifiable to consider the case as one adapted to a cutting operation. In connection with these remarks, it may not be uncalled for to mention and emphasize one condition of the tonsil that sensible operators have learned to approach with respect, and as a rule exclude from their cutting procedures, namely, the small, white, and indurated gland frequently seen in the adult pharynx.

In looking over the literature concerning tonsillar hemorrhage, it will be observed that the whole gamut of styptics has been traversed, and very rarely, if ever, have any of these drugs proven of service, unless combined with pressure. The much-vaunted combination of tannic and gallic acids, three parts of the former to one of the latter, as suggested by Mackenzie, may be of some use to control capillary bleeding that would probably cease spontaneously in a few minutes if left alone. Certainly it could not be expected to seal the mouth of a spurting artery of any considerable size, that is surrounded and held open by dense fibrous tissue. As a rule, then, it may be said that these drugs are inadequate to the emergency for which they have been recommended. If the hemorrhage is really of a serious and dangerous character, then some surgical or mechanical interference becomes imperative to prevent exsanguination, unless by a happy chance the patient goes into a condition of syncope, when the bleeding ceases as the arterial tension is lowered. In some few cases of serious hemorrhage, where the artery is exposed, simple torsion with the forceps is all that is required. Oftentimes, though, the walls of the vessel will be found brittle or cannot be seized, and it will then be necessary to transfix the stump of the tonsil, if enough of it remain, with a needle, and surround the mass with a silver-wire ligature. These two methods, with the use of the actual or galvano-cautery applied to the bleeding points, practically include all minor surgical aids. It has been quite thoroughly demonstrated that the ligation of either the common or internal carotid arteries singly cannot be relied upon, so that the only hope in this direction is to tie both of these vessels, or the external carotid near its origin from the common carotid artery. The idea of tying one of the great vessels of the neck is apt to appear rather formidable to many, and justly so, if the same result may be attained by other means.

As to what constitutes an "alarming" hemorrhage arising from the tonsils, no general precept can be laid down; each individual case must be judged in itself, therefore the amount can only be defined as relative. It may be stated, in a general way, that after the excision of a tonsil in a child, it is customary to expect bleeding, varying in quantity from one drachm to two ounces. If the amount more nearly approaches the maximum degree mentioned, it is usually quite brisk for two or three minutes, and then subsides altogether. If the operation has been conducted under the primary effects of a general anæsthetic, a certain proportion of the amount of blood already designated is apt to find its way into the stomach and be vomited later; this may excite apprehension on the part of the patient or his family, who fear that it indicates a return of the bleeding. They should therefore be warned of the probability of this event.

The vast majority of subjects presented for operation are children under fourteen years of age, and have been sufferers from tonsillar hypertrophy for a year or more. For this reason they are likely to have an anæmic appearance, pasty complexions, open mouths, dull, expressionless eyes, and undeveloped physiques. To the group just described every drachm of blood needlessly lost at the time of operation means a delay in their restoration to good health. To the others of more robust constitution the loss of a little more blood is of no great moment, as nature speedily repairs the deficit. Every precaution should be taken to guard against secondary hemorrhage, and this may best be accomplished by operating at the patient's home, so that he may be put to bed at once. Whoever is left in charge of the patient should be instructed to see that he is kept perfectly quiet for the succeeding twenty-four or forty-eight hours, and not permitted to use the voice more than is absolutely demanded. Profound sleep after deep ether narcosis should not be allowed for several hours, as there have been reported several instances of serious results, due to a return of hemor-

[1] Read before the Section in Laryngology and Rhinology of the New York Academy of Medicine, April 26, 1893.

rhage which remained undetected. Only cold, soft food will be found acceptable to the patient, and is all that should be given. Small pieces of broken ice, held in the mouth, will be grateful to the patient's lacerated throat, and tend to prevent a recurrence of the bleeding. After several days have elapsed, a mild antiseptic spray or gargle will be found of service. These simple preventive measures, conscientiously fulfilled, will render the chances of a secondary hemorrhage infinitely small and insure peace of mind to all parties concerned.

The general consensus of opinion on the subject of checking tonsillar hemorrhage convinces one that the simplest and most successful method has been that of direct pressure to the bleeding surface. So far the mechanical aids to this procedure have been found faulty in contrivance, or impracticable for actual use, and the surgeon has been obliged to resort to nature's only provision for this unexpected event, to wit, the use of his fingers. It matters not whether the bleeding occurs from a large, spurting artery that has been severed in one tonsil, or is in the character of prolonged, excessive oozing from both sides of the fauces, he will be forced to introduce one or two fingers, of one or both hands into the mouth, as the case may be, and keep up pressure with them until the result is accomplished. In a few cases with which the writer is familiar, this pressure has been required for several hours continuously; not a pleasant task, even when the operator is helped and relieved by competent assistants. At best, digital compression must be limited, uneven, and unsatisfactory, as the hands become tired. I am in hopes that we have here an efficient substitute for this exhausting and indifferent mode of checking tonsillar hemorrhage. The instrument is readily placed in position, and its effect may be noted, when it is *in situ*, by the use of the head-mirror, which is rather a difficult task when the patient's oro-pharynx is occupied by the surgeon's fingers.

Description of the Instrument.—It is six and three-

quarter inches in length and consists of two parallel steel blades, locked together at the point where they join their handles. To the tips of the blades, which are four inches long and are curved outward and backward in their last half inch, there are attached on the outside, and at right angles, ovoid pads, through which the compression is exerted. The pads are of metal and are symmetrical; each one is an inch long and half an inch wide at its base from which it gradually tapers to the apex, where it measures one-eighth of an inch in width. The surface of the pad is directed outward and backward, is convex in shape, perfectly smooth, and has rounded edges. The handles of the instrument are bent downward, and are continuous with the shafts; they are connected at their extremities by a threaded screw rod that passes through and emerges from the right one; at the outer side of the latter there is a milled wheel that travels on this rod, serving to hold the pressure at any given place. A spring of moderate strength has been inserted between the handles to create enough resistance to the pressure of the hand to insure a firm grip on the instrument when it is in use, and to close it when at rest. By the approximation of the handles the pressure-pads may be separated to four inches, a limit which will be found to be more than ample for the purpose intended.

In shape the instrument has been as closely as possible adapted to the conformation of the mouth. The curve at the extremity allows it to clear the base of the tongue, thereby preventing useless irritation and discomfort to the patient, with consequent gagging. The only parts of the instrument that come in contact with the mouth or pharynx are the pads, with which the direct pressure is made. If desired, the pressure of the instrument may be supplemented by the hands of an assistant placed on the outer side of the subject's neck, support being thus given to the tissues against which the force is being exerted. If deemed necessary, the pressure-pads may be wound with a styptic cotton, to hasten the formation of blood-clots in the injured vessels. The instrument is readily taken apart and cleansed, and may, therefore, be rendered perfectly aseptic.

In order to derive satisfaction from the use of the instrument the manipulation should be as follows: Having placed the patient in the best obtainable light, and his mouth being widely opened, the tongue should be depressed with a spatula held in the operator's right hand, and the tip of the instrument, directed by the movements of the left hand, quickly introduced and carried back into the pharynx, so that the pressure-pads will be at a point slightly beyond the bleeding surfaces; the distal end should then be opened widely enough to cause firm pressure with the pads upon the area of wounded tissue. This is done by closing the spring handles with the grasp of the left hand. The tongue depressor may now be discarded, leaving the right hand free to work the wheel running on the thread of the connecting-rod. By virtue of this wheel, which works rapidly, the amount of compression exerted on the bleeding parts may be nicely adjusted, and increased or diminished at will. Whenever it is wished to greatly augment the pressure, it should be accomplished by means of the handles and not by turning the wheel; the latter is primarily designed to hold the degree of force applied at a fixed point, as determined by the surgeon, thus it is made constant and even. These details having been properly carried out by the operator, and the practically unlimited power at his command considered, makes the question of his ability to arrest hemorrhage from the tonsils a less doubtful one than formerly.

Naturally, the first thought that arises in one's mind in considering a device of this kind, and intended for use in the sensitive region of the oro-pharynx, is whether it can be tolerated by the subject on whom it is designed to be employed? My experience with the instrument convinces me that it can be borne in any throat, providing the operator is possessed of a moderate degree of skill and manual dexterity. It has been tested by application to the tonsillar regions of many subjects, varying in age from ten to fifty years. Usually the adult subject, with which we have mostly to deal, has some control over the faucial and palatal muscles, and, as general anæsthetics are rarely given for a tonsillotomy after the age of puberty has been attained, the co-operation of the patient may be relied upon to some extent, as affecting posture and the exercising of enough will-power to prevent gagging. The muscular contractions caused by the presence of the instrument are less than those produced by the fingers when employed for the same purpose, and with delicate management may be so far overcome that pressure on the cut vessels will be endured long enough to allow them to become closed by blood coagula. Should the patient lose all control of himself, fearing that he is about to die, and persuasion failing, force should be used in subduing him in order to prevent such a catastrophe. In the event of such an occurrence, a mouth-gag would be of service to insure the instrument being retained in position.

An analysis of these forty-six reported cases of alarming tonsillar hemorrhage shows that only four of them were under fifteen years of age, and five others are mentioned as being "young," presumably young adults.

That the use of ether is advisable, to induce a condition of general anæsthesia in a very young subject for tonsillotomy, is generally conceded by those who have had an extensive practice in this branch of surgery; besides causing the absence of pain, it has the advantage of

placing the subject under the entire control of the operator, and in case of excessive bleeding renders the use of such an instrument as this one comparatively easy.

The instrument is placed before you with the hope that, in using it, the surgeon will be spared many moments of anxious suspense after operation on the tonsils.

The tonsillar hæmostat was made for me by C. E. Riker, surgical-instrument maker, of this city.

Forty-six Cases of Alarming Tonsillar Hemorrhage.[1]

Sex.	Age.	Disease.	Instrument used.	Result.	Operator, reporter, and remarks.
Male.....	21	Hypertrophy of tonsils.	.....	Recovery.	Gayat: Thèse, Paris, 1868, No. 275, p. 52. Jarjavay operated; right tonsil removed.
Male.....	35	.....	.....	Recovery.	Broca: Paris, operator, 1869. Both tonsils removed: patient a hæmophile; hemorrhage stopped in two hours by direct application of ice.
Female...	20	.....	.....	Recovery.	Ditto: Operator. No details.
Male.....	.....	Hypertrophy of left tonsil.	Bistoury.	Recovery.	Dr. Wharton F. Hood: *Lancet*, 1870, vol. ii., p. 600. Small calculus within tonsil; vomiting stopped hemorrhage.
Male.....	.....	.....	.....	Recovery.	Ditto: No details; both tonsils excised; sulphate of zinc administered; vomiting, hemorrhage stopped.
Male.....	31	Syphilitic enlargement of right tonsil.	Hook and bistoury.	Recovery.	Dr. Güntner: Oestern. Zeitschr. f. prakt. Heilk., Wien, 1872, xviii., No. 52, p. 839. Patient a hæmophile; syphilitic; common carotid ligated.
Male.....	Young.	Hypertrophy of tonsils.	Amygdalatome.	Recovery.	Mary: Thèse, Paris, 1875, No. 29. Operatioo by patient himself. Hemorrhage stopped with perchloride of iron.
.....	.....	.....	.....	Recovery.	Agnew's System of Surgery, vol. ii., p. 991. McCarthy, London Hospital, ligated common carotid artery for hemorrhage after tonsillotomy.
.....	.....	.....	Probably bistoury.	Recovery.	Ditto: Velpeau reported four cases of dangerous hemorrhage from injury to the internal carotid.
Female...	Middle.	Hypertrophy of right tonsil.	Amygdalatome.	Recovery.	Dr. A. M. Fauntleroy, Amer. Med. Weekly, Louisville, ii., 1875, p. 498. Patient was very full-blooded; ice-packing upon neck employed.
Male.....	18	Hypertrophy of tonsil.	Guillotine.	Recovery.	Dr. L. D. Kastenbine: Louisville Med. News, i., 1876, pp. 280, 281. Hemorrhage stopped by patient walking home with mouth open.
Male.....	24–25	.....	.....	Fatal.	Broca: Paris, operator, 1879. No details.
Male.....	8½	Double tonsillar angina; hypertrophy.	Amygdalatome.	Fatal.	Ditto: Nov., 1879. Cause of hemorrhage, anomalous internal carotid artery.
Male.....	20	.....	.....	Recovery.	Dr. Saint Germain: No details; hemorrhage stopped by ice applied around the throat.
Female...	.....	Hypertrophy of tonsils.	Forceps and blunt bistoury.	Recovery.	Dr. Cidon: 1880, Hygeia, Stockholm, xlii., 1881, p. 256. Ligation of common carotid.
Male.....	25	Hypertrophy of tonsil.	Tonsil bistoury.	Recovery.	Dr. G. M. Lefferts: Arch. of Laryngol., New York, iii., 1882, p. 37. Pressure applied directly on surface.
Male.....	35	Hypertrophy of tonsil.	Mackenzie's amygdalatome.	Recovery.	Ditto: Hemorrhage from artery at right stump; artery twisted, hemorrhage stopped.
Female...	Young.	.....	Amygdalatome.	Recovery.	Ditto: Artery twisted.
Male.....	.....	Hypertrophy of right tonsil.	Amygdalatome.	Recovery.	Ditto: Ditto:
Male.....	46	Hypertrophied tonsils.	Mackenzie's amygdalatome.	Recovery.	Felix Semon: Rep. St. Thomas's Hospital, 1882, p. 85. Hemorrhage from both tonsils; ice, gargles of alum, tannic acid and perchloride of iron failed to stop bleeding. Controlled by digital pressure.
Female...	23	Hypertrophied tonsils.	Mackenzie's amygdalatome.	Recovery.	Ditto: Rep. St. Thomas's Hospital, 1883, vol. xiii., p. 129. Persistent oozing from both tonsils; styptics and digital pressure failed; patient put to bed and the bleeding stopped in three hours.
Female...	30	Enlargement of left tonsil, acute inflammation.	Mackenzie's amygdalatome.	Recovery.	Dr. Clinton Wagner: Tr. of the Am. Laryngolog. Assoc., 1886, New York, 1887, viii., p. 185. Artery twisted with forceps.
Male.....	Young.	.....	.....	Recovery.	Ricordeau: Thèse, Paris, 1886; Reclus, operator. Both tonsils removed.
Male.....	34	Ch. follicular amygdalitis.	Mackenzie's for right toosil, and tonsil-sickle for left tonsil.	Recovery.	Dr. J. Walker Downie: Edinb. M. J., xxxii., 1886–87, p. 116. Hemorrhage stopped by actual cautery.
Male.....	Young.	Hypertrophy of tonsil.	.....	Recovery.	Dr. Briddon: Med. News, Phila., May 28, 1887. Hemorrhage from small spurting vessel for three days; injected persulphate of iron, which controlled bleeding.
Male.....	31	.....	Cautery.	Recovery.	Dr. Werner: Oct. 11, 1887. Med. Cor. Bl. d. Würtemb. ärztl. Ver., Stutt., lviii., 1888, p. 241. Manual compression of carotids for ten days.
Female...	18	Hypertrophy of tonsil.	Amygdalatome.	Recovery.	Christopher Lewis: Brit. Med. Jour., Sept. 15, 1888. Large vessel behind anterior pillar severed; torsion failed; combined external and internal pressure with finger controlled bleeding.
Male.....	21	Hypertrophy of tonsil.	Amygdalatome.	Recovery.	Ditto: Profuse hemorrhage came on five hours after operation. Pressure with perchloride of iron swab controlled the bleeding.
Female...	Middle.	Hypertrophy of tonsil.	Amygdalatome.	Recovery.	Ditto: Hemorrhage came on two hours after operation. Firm and continuous pressure with perchloride swab stopped the bleeding.
Female...	Adult.	Acute inflammation of tonsil.	Bistoury.	Fatal.	Reported by Dr. H. C. Murphy: Albany Med. Annals, 1888, ix., p. 18. Fatal hemorrhage resulting from puncture of tonsil with knife.
Male.....	25	Hypertrophy of tonsil.	Mathieu's amygdalatome.	Recovery.	Dr. S. E. Fuller: Amer. Jour. of the Med. Sci., Phila., xcv., 1888, p. 357. Common carotid ligated; saline solution (12 oz.) transfused into radial vein.
Male.....	21	Quinsy.	Mathieu's amygdalatome.	Recovery.	Dr. L. E. Blair: Albany Med. Ann., ix., 1888, pp. 41–47. Hemorrhage from left tonsil; ice and compression.
Male.....	27	Acute tonsillitis.	Mathieu's amygdalatome.	Recovery.	Ditto: Hemorrhage from right tonsil; stopped by compression.
Male.....	22	Hypertrophy of tonsils.	Volsella and scissors.	Recovery.	Dr. E. W. Clarke reported and performed ligation: Dr. T. M. Markoe, operator, N. Y. M. J., xlviii., 1888, p. 7. Hemorrhage stopped by ligation of the stump.
Male.....	Young.	.....	Amygdalatome.	Recovery.	Dr. Daly: Tr. of the Am. Laryngolog. Assoc., 1888, N. Y., 1889. Hemorrhage stopped by compression.
Male.....	34	.....	Amygdalatome.	Recovery.	Dr. D. Bryson Delavan: Tr. Am. Laryngolog. Assoc., x., 1888, N. Y., 1889, pp. 153–165.
Female...	7	.....	Fahnestock's.	Recovery.	Ditto: Patient was a hæmophile.
Male.....	Adult.	.....	Guillotine.	Recovery.	Dr. R. J. Lewis: Med. News, Phila., liii., 1888, p. 640. Hemorrhage stopped by application of a tenaculum through base of tonsil, and twisting it.
Male.....	.....	.....	.....	Recovery.	Dr. A. Vander Veer, reporter; Dr. Alden March, operator: Albany Med. Annals, ix., 1888, pp. 41–47. No details given.
Male.....	48	Hypertrophy of tonsils.	Mathieu's amygdalatome.	Recovery.	Dr. F. Park Lewis: J. of Ophth., Otol., and Laryngol., N. Y., i., 1889, pp. 115–117. Hemorrhage four quarts in seventeen hours from left tonsil.
Female..	14	Hypertrophy of tonsil.	Mathieu's amygdalatome.	Recovery.	Dr. J. S. Butler: N. Y. Med. Rec., Nov. 2, 1889. Hemorrhage from right tonsil; ice, tannu-gallic acid, and pressure failed; stump was surrounded by silver-wire ligature, and left in position for two days.
Male.....	Adult.	Acute tonsillitis.	Amygdalatome.	Recovery.	Maure: Société de Chirurgie, April 20, 1890. Severe hemorrhage from left side on the night following operation; controlled with difficulty by iced drinks and pressure. A similar bleeding occurred eight hours later without apparent cause.
Female...	Adult.	Acute tonsillitis.	Amygdalatome.	Recovery.	Dr. W. E. Greene: Jour. Ophth., O., and Laryngol., N. Y., 1891; iii., p. 138. Hemorrhage five hours after operation; continuous pressure for one-half hour controlled it.
Female...	Adult.	Hypertrophied tonsils.	.....	Recovery.	Ditto: Bleeding began in both stumps one hour after operation; controlled by cauterization.
Male.....	3½	Peri-tonsillar abscess.	.....	Recovery.	Dr. T. C. Dunn: Univ. Med. Mag., May, 1891. Hemorrhage following peri-tonsillar abscess; ligation of the common carotid.
.....	.....	.....	.....	Recovery.	M. M. Krasin: Drevnik obsh. vrach. pri imp Kazan Univ., 1892; iii., pp. 110–123. Two cases of hemorrhage threatening life after tonsillotomy.

313 Madison Avenue.

[1] Thirty-one cases reported in the above table appeared in an article by Dr. Jonathan Wright, New York Medical Journal, August 30, 1890, p. 235.

Clinical Department.

PUERPERAL FEVER AND ERYSIPELAS.

Infant One Month Old with Erysipelas of Head, Face, Neck, Trunk, and Extremities—Recovery.

By DILLON J. SPATSWOOD, M.D.,

FAIRFORD, ALA.

As the almost universal verdict of the medical profession is that puerperal fever is caused by septic absorption, I thought it would be of some interest to the readers of the Medical Record to relate the history of the following case, which undoubtedly makes it appear that the zymotic diseases play some part in the etiology of puerperal fever, the reverse of which is true in this case.

I was called to see Mr. R——'s child, aged one month, on April 10th, at 10 A.M. There was a small red spot just below the external ear; temperature, 101° F. An antipyretic was prescribed, and the neck ordered to be powdered with the following: Zinci oxidi, ʒ iv.; starch, ℥ j.

The same afternoon I was called again hurriedly, as the child had had a slight convulsion. I found the temperature 105⅖° F. The redness had extended from the external ear over the entire side of the head and neck, and to the middle of the face, and had involved the external palpebral portion of the left eye. The redness was of a deep crimson, with the characteristic glaze and œdema of erysipelas. All medicine administered was rejected by the stomach, but the bowels were regular and nourishment was retained.

Second day.—Temperature, 103° F. in the morning; 104⅜° F. in afternoon. Œdema and redness continue.

Third day.—Temperature, 102° F. in morning; 104° F. in afternoon. The redness and œdema are beginning to disappear on the left side of the face, and coming on almost exactly in the same place on the other side of the head; extending around, involving the face and scalp exactly in the manner as the left side had been affected.

The temperature ranged for the next seven days from 101° to 103½° F. The redness and œdema were disappearing on the tenth day from both sides of the face and head. The temperature was normal on the eleventh day, and to all appearance the child had recovered.

Upon the twelfth day redness and œdema returned on both sides of the face and head, this time involving the occiput, and entire posterior cervical portion of the body. The temperature again rose to 104° F., and continued for three days, never going below 102° F., although an antipyretic was administered.

Upon the third day of the relapse red spots were discovered upon every portion of the trunk and extremities, upon the fourth began to fade on the face and head, and upon the fifth disappeared entirely from the face and head. But upon the feet and body the redness and œdema were very marked, causing the child to scream with pain when handled. Now, when the phenomena of the disease were at their height upon the body and extremities, the eruption appeared for the third time on the cheeks and scalp, and remained for two days. During the relapse the fever never reached the height it did during the first illness. Upon the eleventh day after the relapse the child's temperature was normal, and it was nursing and sleeping well.

The mother of the infant had been taken with puerperal fever four days after delivery. A midwife had attended the case during labor, and of course no antiseptic precautions had been taken. But as soon as I was called the case was treated antiseptically with bichloride, vaginal injections, etc. Now the question arises from whence did this new-born infant get the erysipelas? I had no cases under treatment, and there had been none in the neighborhood for the past two months. Many instances are cited in text-books where puerperal fever is contracted from erysipelas—Can the reverse be true?

As this case was extremely severe, and the infant only one month old, I will briefly give the treatment which proved successful. As the stomach rejected all medicine the following was given per rectum: Quin. sulph, gr. ij.; syr. ferri chloridi, ʒ ss., in emulsion of acacia, with a wine-glass of warm water, every four hours. When the temperature went above 102° F., antipyrine, gr. j., sodii bromidi, gr. iv.; liq. ammon. act., ʒ ss., in orange syrup, was administered, with excellent result, every three hours until the fever fell below 101° F.

Bichloride 1 to 2,000 solution was used to sponge all over the head and neck and around the edges of the inflammation. The affected portion was kept freely anointed with an ointment of aristol, ʒ j., in vaseline, ℥ j.

When the eruption spread all over the body, bichloride baths of 1 to 5,000 (warm) were given, and the aristol ointment was freely used afterward. During the relapse remedies were administered by the stomach. Amorphous syr. of quin., ʒ j., three times daily. Syr. ferri chloridi, pepsin cordial, āā ʒ ss., after nursing, four times a day. Immediately upon the appearance of the disease the infant was taken from the mother's breast and put upon Horlick's malted milk, which agreed with it excellently.

It gives me pleasure to state that the child has entirely recovered, and though the treatment may seem heroic for an infant of one month, I may safely remind my critics that "there is no success like success." This is not a case where the patient was cured, but died of something else.

POST-PARTUM APPENDICITIS.

By H. M. NEALE, M.D.,

UPPER LEHIGH, PA.

During the past few years several cases of appendicular inflammation in women, which developed immediately after childbirth, have come under my observation. And so frequently have I noticed this condition that I am now thoroughly convinced that there is some cause for this phenomenon other than the extension of an inflammation of either septic or traumatic origin from the organs more directly concerned in the act of parturition. Having then arrived at the conclusion that this disease is more common in women who have recently passed through an accouchement than at other times, the next thing is to endeavor to account for it satisfactorily. The most reasonable explanation for the occurrence of appendicitis at this particular time, that suggests itself to my mind, is the fact that the cæcum is filled, or partially filled, as the case may be, with fecal matter during the process of labor. When the pains become harder and harder, and the intervals between the pains become shorter and shorter, and the contractions of the abdominal muscles are violent, the contents of the abdominal cavity are subjected to a high degree of pressure; this may force the contents of the cæcum, or a portion of them, into the appendix, and an inflammation of a more or less serious character may result. The degree of inflammation resulting from this accident will be influenced by the nature of the substance which finds its way into the appendix. If only a fluid or semi-solid substance enters the appendix, the resulting inflammation will probably be slight, owing to the fact that as the appendix swells and an exudation is thrown out, and as the walls of the appendix begin to distend, the contents will partially or entirely pass back again into the cæcum and the inflammation rapidly subside. When an appendicitis of the nature just described is present we may have scarcely any constitutional symptoms, or they may be very severe, and subject to the same changes and influences that characterize inflammation elsewhere. I have seen many cases where the patient has complained, a few days after confinement, of pains in the right iliac region, with tenderness on palpation, with constipation usually, but not always, present; and in some instances the usual symptoms of inflammation of the appendix were present, such as slight chills, fever, vomiting, etc., while in other cases the constitutional symptoms have been practically nil. In most ot

the cases of this character a tumor could be felt at McBurney's point which was very painful to the touch but disappeared quickly after the acute symptoms began to subside. When symptoms like these present themselves, I infer that an appendicitis due to ingesta being forced into the appendix has supervened, and as these cases usually recover without serious results, it is reasonable to suppose that the cause of the trouble is due to a comparatively non-irritating substance, and has been removed in the manner described. On the other hand, two cases have recently come under my observation of an appendicitis of a very serious nature following labor, in which operation verified the correctness of the diagnosis. In the more serious cases it is safe to suppose that either a solid substance, such as a grape-seed or a lemon-seed or some foreign body not easily gotten rid of, has found its way into the appendix, or that there has been a rapid extension of the inflammation due to a weak and debilitated condition of the patients, which would render them peculiarly susceptible to the inflammatory process. Having observed these conditions for several years I have come to the conclusion that many of the so-called cases of "pelvic abscess," "pelvic cellulitis," "inflammation of the ovary," "salpingitis," etc., that follow childbirth are in reality appendicitis caused in the manner just described. I can now recall three cases of relapsing appendicitis that date the beginning of this trouble from confinement; one case has recently come under my care in which the patient has complained of pains in the right side since her last confinement, nine years ago; she is very thin, and a small mass, irregular in shape, can be easily felt about the cæcum, and seems to conform to the convolutions of the colon, giving rise to the suspicion that the walls of the colon are thickened and indurated. In view of these facts I am satisfied that this condition is much more common than is usually supposed.

Progress of Medical Science.

Sudden Death in a Case of Abscess of the Liver.—At a meeting of the Orleans Parish (La.) Medical Society, Dr. A. J. Bloch reported a case of abscess of the liver that had come under his care. Prior to January, 1892, the patient had experienced good health, but at that time had an attack of fever with pain in the right side which confined him to bed. Treatment was of little benefit, and the nature of the case was not quite evident until, in a fit of coughing, he expectorated a quantity of liver pus. Exploration revealed the presence of a cavity in the right lobe of the liver. On April 1, 1893, Dr. Bloch resected the rib and made a large opening into the abscess cavity, removing fully one pint of very foul pus. Fearing to irrigate under chloroform, as the cavity communicated with the lung, he packed the cavity with iodoform gauze. The patient rallied well; his pulse, as before the operation, was 155 a minute; his respirations 40. The following day the cavity was irrigated with a two per cent. solution of carbolic acid and a drainage-tube was substituted for the gauze. The change in his condition the next week was phenomenal; his temperature became normal; his pulse was reduced to 110, stronger and fuller; his appetite was inordinate; his respirations from 24 to 28 a minute. Each day the cavity was irrigated with the carbolized solution, after which peroxide of hydrogen, followed by iodoform and glycerine (℥ iv. to ℥ vi.), was injected. On April 15th the author found his patient in a very gratifying state, although complaining a little of his cough. As soon as the nozzle of the syringe was introduced into the wound he began to cough, but this was nothing unusual, as the same difficulty was experienced every day. The surgeon stopped for a moment, which gave the patient relief, and began again very gently to remove the pus. This time the cough became violent; the patient became cyanotic, and his pulse could not be felt. Every means possible was tried to revive him, but with no result; he was dead. Dr. Bloch was unable to hold an autopsy, but regarded the man's death as due to shock produced by a rupture of liver attachments, with a flow of pus and water into the abdominal cavity.

Pulmonary Syphilis.—Dr. Chomationas has reported the case of a man, twenty-seven years old, who two years after an attack of influenza complicated by bronchitis, and followed by hæmoptysis, presented great debility, a Hippocratic countenance, intense dyspnœa, elevation of temperature, insomnia, anorexia, violent cough, with muco-purulent and blood-streaked expectoration, and profuse night-sweats. On physical examination no lesion was detected at the apices of the lungs, but over the middle lobes posteriorly there were evidences of consolidation and of a small cavity upon the right. The patient presented tegumentary and osseous evidences of a previous syphilitic infection, and on being interrogated admitted having had a chancre ten years previously, and having had secondary and tertiary symptoms subsequently. Examination of the sputum failed to disclose the presence of tubercle bacilli. A diagnosis of pulmonary gumma was made, and a mixed treatment with inunctions of mercurial ointment and potassium iodide in increasing doses was prescribed. The patient speedily and progressively improved, symptoms and physical signs receded, and at the end of six weeks the patient was dismissed, practically cured.

In differential diagnosis the following considerations are to be borne in mind: (1)The anatomic localization of the lesions in the lungs, tuberculosis being usually situated at the apices, syphilis in the lower lobes; (2) the microscopic examination of the sputum, the tubercle bacillus being absent in cases of syphilis; (3) the history of the patient, personal and family; and (4) the results of anti-syphilitic treatment.—*The American Journal of the Medical Sciences.*

The Treatment of Large Arterial Venous Nævi by Excision.—Dr. O'Neill advises the excision of large nævi for the following reasons: 1, all the nævoid tissue can be more rapidly and thoroughly removed, so that there is not likely to be a reappearance of the nævus; 2, there is very slight hemorrhage, and it can be easily prevented or arrested by forcipressure forceps and ligatures; 3, there is no slough left in the wound; 4, the wound heals rapidly. Two cases are cited in which the result was entirely satisfactory. To control the hemorrhage during operation harelip pins may be passed beneath the growth and a rubber ligature made to encircle the base, or the vessels may be caught with hæmostatic forceps before being divided.—*Dublin Journal of Medical Science.*

The Abortive Treatment of Erysipelas of the Face.—Dr. Talamon advises treatment of facial erysipelas by spraying with a solution of corrosive sublimate in ether, 1 in 100, preferably by means of a hand-bulb atomizer. The more forcible the spray, the shorter the time required for atomization. Attention should be paid to the delicacy of the skin, the depth of infiltration, the presence of vesicles. The formation of vesicles in consequence of the spraying is not dangerous, and as long as the affected area is small may be beneficial. The spray should be especially applied to the periphery of the erysipelatous swelling, and the surrounding healthy skin for a distance of one or two centimetres. In erysipelas of the eyelids only the adjacent parts are subjected to the action of the atomizer. After the spraying the faces hould be covered with compresses frequently moistened in boric acid solution. One or two forcible atomizations are sufficient as a rule: later their force may be diminished, and only those places are to be treated where the erysipelas threatens to advance. The pain produced by the atomization is usually moderate, and is due to the increased swelling and formation of crusts. This method may be employed on other parts of the body, but more force must be employed.—*International Journal of Surgery.*

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THE PERIOD OF INCUBATION OF THE INFECTIVE FEVERS.

THE period of incubation of the various infective fevers has been a matter of great discussion, and one concerning which definite conclusions have not been reached. A report on this subject by a committee of the London Clinical Society will be received with much interest.

The material which the report contains was obtained in response to a circular letter issued in 1889 by a committee over which Dr. Broadbent presided. The large mass of documents received was digested by Dr. Dawson Williams, one of the honorary secretaries of the committee. Dr. Williams was at the pains to go through the whole of the reports made by its medical inspectors to the Medical Department of the Local Government Board since 1878, which had been laid open to the inspection of the committee by Sir George Buchanan, one of its members. Many important facts and observations, in respect especially to diphtheria, typhoid fever, and scarlet fever, were thus obtained.

The system upon which the summaries were prepared has been to take first those cases in which the exposure to the source of infection was for a short time—a few minutes or hours—at a known date. These have been made "the basis of the conclusions drawn as to the duration of incubation; while other histories, in which only the date of the commencement or cessation of exposure to a source of infection was given, have been used for contributory evidence." The duration of infectiousness is also investigated by the light of the data supplied; and the length of time which a patient who has suffered from the disease should be isolated, the period during which a susceptible person exposed to infection should be quarantined, the liability to the retention of infection in clothes and to its dissemination by milk and water, are also considered.

The conclusions of a committee which has evidently gone over the subject so carefully are of much importance, and deserve to be presented here.

Diphtheria, two to seven days; oftenest two.

Typhoid fever, eight to fourteen days; sometimes wenty-three.

Influenza, one to four days; oftenest three to four.

Measles, seven to eighteen days; oftenest fourteen.

Mumps, two to three weeks; oftenest three weeks.

Rubeola, two to three weeks.

Scarlet fever, one to seven days; oftenest two to four.

Small pox, nine to fifteen days; oftenest twelve.

Further investigations were made with regard to the time and duration of the infective period.

Diphtheria was found to be infective during the period of incubation, attacks and convalescence.

Mumps and rubeola are also infective for three or four days before the onset of the parotiditis and appearance of the rash.

The contagiousness of measles speedily disappears, and does not continue in disinfected persons for over three weeks.

Typhoid fever is infectious from the time of onset until two weeks after the fever has gone and convalescence set in.

As is well-known, the contagiousness of scarlet fever varies greatly, but is generally continued a very long time—certainly until desquamation ceases, and sometimes as long as eight weeks.

The figures put forth by the committee of the Clinical Society will doubtless excite some discussion and controversy, but they are based on a large amount of clinical data.

THE THERAPEUTICS OF SEA-SICKNESS.

WHEN we consider the immense aggregrate of human misery for which sea-sickness is directly responsible, it is rather remarkable that it has been the subject of so little systematic investigation. There is, indeed, a rather extensive literature bearing upon this malady, as the communication of Dr. Irwin, which appeared in a recent issue witnesses. But although much of general interest has been written, there is little in all this mass that is, viewed from the practical standpoint of the therapeutist, of much real value. The reason for this neglect is probably that the study of sea sickness, except for the physiologist, seems to offer less prospect of brilliant results than does that of other more distinctly defined diseases.

Sea-sickness or kinetia—a term recently applied to all forms of motion sickness—is an essentially transient ailment, seldom outstepping the stage of mere functional derangement, and rarely dangerous to life. It is true that there are on record authenicated cases of death proximately resulting from it, but excepting the extraordinary cases of inanition observed during the longer voyages of former times, there has been reason in almost every instance to attribute the fatal result to some pre-existing organic lesion. In at least one other respect sea-sickness differs from all other ailments, for the conditions which cause it are in themselves harmless, and only disturbing so long as the system remains unaccustomed to them. Consequently, the best remedy—short of absolute cessation of those conditions—is their steady continuance until *habit* has been established, and with it immunity from further disorder. The degree of derangement is influenced by such circumstances as the susceptibility of the individual, the nature of the motion, the fortuitous condition of the weather, and not infrequently the provocative character of the sufferer's surroundings. Its duration rarely exceeds from two to three days, while in the majority of cases the tendency toward recovery shows itself, even when no special treatment has been adopted, within a very few hours of the onset. It naturally follows that in estimating the value of remedies there is in this ail-

ment more than ordinary liability to confuse the *post hoc* with the *propter hoc*, and hence the somewhat absurd enthusiasm of the recurrent discoveries of a universal specific. The experiments of these men have, as a rule, been limited to a few voyages, and have probably been conducted upon persons, many of whom were otherwise insusceptible or had already partially acquired physiological exemption.

Nevertheless, it is little creditable to our science, or to the men engaged in practice upon the large passenger steamers, from whom by this time something definite might be expected, that so little is known of the therapeutics of kinetia. It seems to be fairly well established that the initial disturbance is of the special function of equilibration, upon which, no doubt, visual impressions may exercise some influence. It is equally certain that the nausea is of secondary or cerebral causation, and not the direct result of impingement or shaking up of the abdominal or other viscera. No similar disturbance accompanies riding on horseback or other exercise of much more violent character. It seems also to be of universal experience that the remedies which are most helpful may be classed either as sedatives or stimulants—sedatives to the organs responsible for equilibration, or direct stimulants to the stomach whereby this organ is enabled to resist the influence of perverted innervation. The search for a universal specific may be regarded as hopeless, if not absurd; but a systematic study of the special forms of sea-sickness as observed during the short channel passages and during ocean transit, and conducted upon the same scientific lines as would be essential in any similar investigation, may still afford valuable guidance in the treatment of individual cases.

Besides sea-sickness itself, there are other important questions connected with sea-voyaging—such, for instance, as its effect upon the menstrual function and the condition of pregnancy, which was some years ago treated of in an essay by Dr. Irwin—which should be made the subject of continued observation by those who have the opportunity.

A NEW DEPARTURE IN SANITATION.

The Board of Health of this city has instituted a new departure which will prove, we believe, of extreme importance to the community. It has issued a circular in which it is stated that much of what is usually called diphtheria is not such, but is a relatively innocuous malady not needing stringent quarantine and disinfection. The diagnosis of true diphtheria can be made by bacteriological cultures in ten or twelve hours, and the Board of Health will hereafter undertake this work for the practitioner. It is surely a most radical proposition for the State to step in and offer to become the diagnostician of disease. There were, within a given period, 775 deaths from diphtheria and 362 from membranous croup, and this must represent six or seven thousand cases of these maladies, to say nothing of thousands of other suspicious cases. The amount of bacteriological work involved will be enormous if the profession call on the services of the Board. We shall watch the experiment with great interest. It will certainly have a valuable educational effect on the practitioner, and will stimulate him to acquire a practical knowledge of bacteriology, which will no doubt be of great service. Above all, it will put a quietus on those tiresome people who continue to reiterate that "they don't believe in germs." The example set by our Board will no doubt be followed elsewhere if it is successful. It is estimated that about one-fourth only of membranous sore-throats are truly diphtheritic.

A NATIONAL BUREAU OF HEALTH.

At a special meeting of the New York Academy of Medicine, held on June 20th, the National Quarantine Committee made a report and requested that its powers be enlarged so that it could investigate and agitate the subject of establishing a National Bureau of Health. The Committee expressed the belief that only by establishing such a board could quarantine be effectively carried out and the great questions of public hygiene and State medicine be adequately dealt with. It urged that the United States put itself on a plane with other great countries of the world in thus making public health a matter of national concern.

The Academy by unanimous vote granted the request and gave the Committee power to act in the matter. It is proposed to secure the opinions and advice of medical men and sanitarians throughout the country regarding the most effective way of establishing a national sanitary organization. A bill will be framed and submitted to the profession and afterward to the Academy.

The work thus proposed is one of great difficulty, but at the same time one of enormous importance. Few realize, as medical men can, how much unnecessary disease, misery, and suffering there is in the world, and how much could be prevented by wise sanitary precautions and a wider knowledge of the laws of health. It is right that the profession should support the Academy in its present effort, and we believe it will do so heartily. Should it fail to evolve a practicable measure of sanitary organization now, its work would not be lost, for such an organization is a necessity for a great and progressive nation and is bound eventually to come.

WHO ARE NEW YORK'S IMMORTALS?

A correspondent has asked us to name the twelve best representatives of medicine and surgery who have lived and practised in this city. The question is a difficult one to answer and we shall not undertake it except in part. There are many qualities that go to make up a great physician. Some have achieved eminence through the force and charm of their personality. They have won hosts of friends, have drawn to themselves crowds of patients, and by their life and character have elevated their profession and made a mark in the community. Others have won fame as wise and learned teachers and writers, or as brilliant operators, or through original scientific work, or as ingenious contributions to the practical side of their calling.

The name of Dr. John W. Francis would probably be mentioned as most worthy to head the roll. We should add the name of Valentine Mott more readily if he had shown a generous nature in his dealing with Sims. No one can deny to this latter a place on the list of New York's immortals; nor will any hesitate to include the names of Fordyce Barker and Austin Flint. When it

comes to selecting from such eminent deceased as Watson, Buck, Wood, Delafield, Hamilton, Dalton, Parker, choice is difficult. And perhaps we ought to go back to the last century and not ignore the rights of Peter King, Samuel Bard, and others of those times. Perhaps, after all, we should adopt a stricter rule of selection and name for perpetual remembrance only those who by their originality, industry, and inventive genius added something which was a manifest help to the profession in understanding, recognizing, or treating disease.

News of the Week.

Dr. Caleb Green, of Homer, N. Y., died suddenly, Wednesday, May 10th, of valvular heart disease, aged seventy-three. Dr. Green was graduated from Geneva Medical College in 1844, and was afterward Professor of Physiology and Pathology in that institution. He was engaged in a large practice in Homer for nearly forty-five years, retiring from active work about five years ago, but kept abreast of the medical progress and literature of the day till the moment of his death. Dr. Green was one of the early members of the American Medical Association, New York State Medical Society, New York State Medical Association (of which latter he was its first Recording Secretary), was one of the founders of the Central New York Medical Association, and Secretary for many years, and several times President of the Cortland County Medical Society. Dr. Green was a great lover of natural history, and was at different times a member of the American Association for Advancement of Science, the American Society of Microscopists, and other scientific societies. He was one of the three delegates from the New York State Medical Society to the National Convention for Revising the Pharmacopœia in 1860–70, and 1880.

American Association of Genito-Urinary Surgeons.—At a meeting of this Association, held at Harrogate, Tenn., June 20 and 21, 1893, the following officers were elected for the ensuing year: *President*, Dr. George Chismore, of San Francisco; *Vice-President*, Dr. L. Bolton Bangs, of New York; *Secretary* and *Treasurer*, Dr. John A. Fordyce, of New York; *Member of Council at Large*, Dr. R. W. Taylor, of New York.

Pan-American Medical Congress. *Section of Gynecology and Abdominal Surgery.*—All members of the medical profession are cordially invited to attend the meetings of this Section to be held in Washington, September 5th, 6th, 7th, and 8th. The sessions promise to be exceptionally interesting, many valuable papers having been contributed. Those who may wish to read papers before this Section, and who have not yet sent in their titles and skeleton abstracts, are requested to do so at once. Papers have already been contributed by a number of distinguished gentlemen from the United States and Canada. W. W. Potter, *Executive President;* Brooks H. Wells, 71 West Forty-fifth St., New York City, *English-speaking Secretary.*

American Electro-Therapeutic Association.—The third annual meeting of the American Electro-Therapeutic Association will be held in Chicago, September 12, 13, and 14, 1893, at Apollo Hall, Central Music Hall Block. Members of the medical profession interested in electro-therapeutics are cordially invited to attend. Dr. Augustin H. Goelet, *President;* Dr. Margaret A. Cleaves, *Secretary*, 68 Madison Avenue, New York.

Professor Charles Felix Michael Peter died in Paris on June 15th, aged sixty-nine years. He was Professor of Clinical Medicine in the Paris Faculty, and had long been one of the most eloquent and popular of the Faculty. He was a pupil of Trousseau's and edited the last edition of that great clinician's work.

Advice to Medical Emigrants.—A correspondent, who signs himself "Ship Surgeon," favors us with a few hints which may probably be useful to those of our readers who may be contemplating a sojourn more or less prolonged in one or other of our colonies or in the United States. In the course of his experience the writer met with many medical men who were anxious "to take the ship home for me"—in other words, they wished to return to England, but had not the means to do so. The Cape appears to be much overdone, and in South Africa generally there is a large number of German surgeons. Canada and the United States seem to be not bad places for the medical emigrant if he will go up country. The clientèle is not numerous, but the fees seem to be good. Australia, though at present commercially depressed, affords favorable openings, but the large towns should be avoided. New Zealand, some parts of it at least, offers good chances of profitable work, especially in South Island. On the whole our correspondent has not a very favorable testimony to offer in behalf of practice far afield or at the Antipodes, and is inclined to take the chances which remain for him at home.—*The Lancet.*

The Cholera.—Reports from Mecca show that the cholera is raging to an almost unparalleled extent, even for that hot-bed of epidemic disease, 830 deaths having occurred there in the four days ending June 20th, 445 on Sunday, June 25th, and only one less than a thousand on Monday last. This is the largest number reported during the present epidemic, but there is no reason why it should not be exceeded except that the material for the disease to work upon must become exhausted in the course of time, notwithstanding the fact that the pilgrimage to Mecca is very large this year. The latest advices from Russia indicate that the disease is diminishing in that empire. There can be little doubt, however, that cholera prevails to a considerable extent throughout France, although the authorities are pursuing the foolish, if not criminal, course of attempting to conceal the extent of its ravages. Cases are reported from coast towns in both the northern and the southern portions of the country, and the fact that the authorities in Montpellier and elsewhere are voting large sums for the building of temporary lazarettoes for the reception of cholera patients bears witness to the prevalence of the disease in those places. Cases are reported from Alais, Nantes, Toulon, Hyères, and Cette, and the disease exists also in Malta and Cephalonia in the Mediterranean, and in Catalonia, Spain. The reports from Hamburg are more cheering, no new cases having occurred there during the week ending June 23d.

Dartmouth Medical College.—The annual opening address will be delivered this year by Dr. C. L. Dana, of New York, on July 13th.

Harvard Medical School Association.—The annual meeting and dinner of the Association was held on June 27th.

Columbia College.—At the one hundred and thirty-ninth Commencement of Columbia College, held at the Carnegie Music Hall on June 14th, the degree of M.D. was conferred by President Low on 104 graduates of the Medical Department of the College of Physicians and Surgeons of New York.

Local Anæsthesia.—Hacker, in his lectures, quoted from Schleich, at the last Surgical Congress, on the "so-called infiltration-anæsthesia," remarking that this was a very plausible theory whereon a reasonable explanation could be advanced in favor of many local applications for surgical operation. Common salt, when thrown into the intercellular tissue, will produce such a diffuse effusion that any kind of cutting may be undertaken without pain. This preparation (in a 0.2 per cent. solution) with a very small quantity of cocaine will make an excellent anæsthetic, and one that Hacker frequently uses, in the form of

℞. Aquæ destill.	100
Cocaine	0.1
Chlornatrium salt	0.2

M.

Injections with this solution must be used several times to produce the necessary œdema, after which a painless operation may be undertaken. If the insertion of the needle is to be made painless, it may be previously dusted with ethylchloride.—*Medical Press.*

Faith Cure in Diphtheria.—A little girl in this city was attacked with diphtheria. She received no medical attendance, but was treated by a faith-cure preacher. The patient died, and an investigation has been instituted to determine the responsibility of the parties.

The Therapeutical Value of Animal Extracts.—In an address delivered recently before the Boston Medico-Psychological Association, Dr. C. L. Dana said (*Boston Medical and Surgical Journal*): "It may interest you to hear the results of my own therapeutical experience in this line during the past eight months. Since July, 1892, I have been using various animal extracts of the thyroid gland, of the brain-tissue, also the rabic virus, and Hunter's modification B of tuberculin. I have treated the following cases by these methods: Locomotor ataxia (brain extract), 8 cases (6 treatment complete, 2 discontinued); 4 improved, 2 not improved. Bulbar paralysis (brain extract), 1 case; cured. Progressive muscular atrophy in late stages (brain extract), 3 cases; not improved. Epilepsy (brain extract, rabic virus, and testicular extract), 5 cases; 3 improved, 2 not improved. Two other cases whose course was known to me were improved. Paralysis agitans (brain extract), 1 case; not improved. Tubercular tumor of brain (Hunter's modification B of tuberculin), 1 case; not improved. Basedow's disease (thyroid extract), 1 case; symptoms increased. Dementia (thyroid extract), 1 case; improved. Pseudo-muscular hypertrophy (thymus), 1 case; result not yet known. Among these cases those in which some specific effects were obtained were cases of bulbar paralysis, locomotor ataxia, epilepsy, and Basedow's disease. The most striking result was that in the case of bulbar palsy. With regard to the use of the thyroid, I have already reported a case in point. It seems to me to be a very demonstrative confirmation of the theory that exophthalmic goitre is due to a toxine which stands in some relation to the thyroid gland. I wish, in conclusion, to say with regard to this particular form of treatment, that I have referred to it with some hesitation, owing to the decidedly bad odor attached to these methods. They have been utilized in the most sensational way by those who have sought newspaper notoriety, and reports have been made with regard to them which have been sensational and exaggerated. Nevertheless, I am so firm a believer in the rationality of this line of therapeutical investigation, that I am willing to brave some misunderstandings in connection with the use of such preparations. There is no more reason to doubt that there should be therapeutical properties in extracts obtained from animal organs; than that there should be such from vegetable organs. We might just as reasonably expect good therapeutical properties from the extract of a gland as from the extract of a root or a leaf or a bean. The remarkable results obtained from the use of the thyroid gland in myxœdema is of itself abundant justification of this position."

Montefiore Hospital.—Ground has just been broken for the new Montefiore Hospital, adjacent to the Montefiore Home for Chronic Invalids, and designed to enlarge the field of work of that admirable institution. The new hospital will be four stories high. The entire building is to be devoted to hospital uses except a portion of the first story, which will be occupied by a synagogue, the Montefiore Home and Hospital being supported entirely by the contributions of Hebrews. The growth of this institution has been remarkable. A two-story frame building at Eighty-fourth Street and Avenue A, devoted to the care of those affected with incurable diseases, constituted its humble original quarters. For some time only Hebrews were admitted; but when the spacious Home on the Boulevard was opened, in 1886, it was made unsectarian. The new building will cost $175,000, and it is estimated that it will require at least $60,000 additional to fit up its appointments.

Inoculation of Measles.—Dr. Hugh Thompson, of Glasgow, describes nine cases in which he had inoculated children with fresh serum taken from blisters on patients suffering from measles. He believes that four were rendered immune, and that in two the experiment failed. At the point of insertion of the serum slight measly-looking patches appeared in from one to two days and lasted for two or three days, accompanied with slight catarrhal symptoms. The serum is taken from small blisters, no larger than a measly patch, and used immediately and inserted by superficial scarifications.

Ecphyaditis is the name proposed by Dr. Robert T. Morris as a substitute for appendicitis. The word is a good one, as the term ecphyas already exists in medicine to describe the appendix vermiformis ceci. Ecphyaditis is also philologically the preferable word; it has the further advantage of distinctiveness.—*Medical News.*

Physicians are of Three Kinds: Hypocrites or quacks dressed as physicians form one class; physicians by common report form the second class; and physicians that really possess the accomplishments which such men should

possess, form the third class. These are the three classes of physicians that practise on earth. Those ignorant persons who, having equipped themselves with the utensils, the medicines, the books, and the bracelets of physicians and assumed their manners and conduct, acquire the title of physicians, are said to be hypocrites or quacks in the guise of physicians. Those persons who without really possessing them pretend to prosperity, fame, knowledge, and success such as true physicians have, and acquire the title of physicians, are said to be physicians by report. The true accomplishments of a physician are said to reside in those persons that have a practical knowledge of the application of drugs, and acquaintance with the medical scriptures and the affairs of men, that are celebrated for their success in treatment, that contribute to the real happiness of their patients, and that are restorers of life and strength.—*Charaka-Samhita.*

Dr. Paul Guttmann, Sanitary Councillor and Director of the Hospital Moabit, died at Berlin on May 24th, of pneumonia complicating influenza, aged fifty-nine.

Dr. James McCann, of Pittsburgh, died recently, at the age of fifty-seven years. The Board of Trustees and Faculty of the Western Pennsylvania Medical College, of which he was the presiding officer, have adopted a minute, from which we gather the following facts: He was born in 1836, in Penn Township, Allegheny County, Pa. His father served under Anthony Wayne in the war for American Independence. In early boyhood he passed his summers working upon his father's farm, and the winter months as a pupil of John G. Beatty, who taught him, in addition to the public school curriculum of that time, Latin and the higher mathematics. At the age of eighteen he went to Pittsburgh, where he spent several years as book-keeper in a business house, but, acting upon the advice of his physician, he finally decided to study medicine, and in 1858 entered the office of Drs. Thomas and John Dickson, Sr. He was graduated from the Medical Department of the University of Pennsylvania in 1863, and immediately entered the medical service of the army as assistant-surgeon of the Fifth Pennsylvania Volunteers. He continued in this service until the close of the war, when he returned to Pittsburgh and began the practice of medicine with Dr. W. C. Reiter. Two years later he received the appointment of surgeon to the Marine Hospital. He was next appointed one of the surgeons of the Western Pennsylvania Hospital, which position he held until a few months ago, when he resigned because of ill health, and accepted the appointment of consulting-surgeon. For twenty years he was one of the surgeons of the Pennsylvania, the Allegheny Valley, and other railroads entering Pittsburgh. He was an active and influential member of the Pittsburgh Free Dispensary from its inception, of the Board of Health for many years, of the Allegheny County Medical Society, of the State Medical Society, of the American Medical Association, of the American Surgical Association, and of the American Association of Obstetricians and Gynecologists, but owing to ill health he was never able to attend a session of the latter. He was one of the organizers of the Western Pennsylvania Medical College. Into this work he threw all his enthusiasm, and devoted to it all his energy and influence. In September, 1886, he was elected to the chair of Professor of the Principles and Practice of Surgery. This position, notwithstanding his failing health, he filled until a few months prior to his death. A short time ago he was unanimously nominated for appointment as "Emeritus Professor," but before this action could be confirmed by the Board of Trustees of the University death had claimed him. It was in the performance of a surgical operation, a work of charity in the Western Pennsylvania Hospital, that he received the fatal shaft from the quiver of the fell destroyer.

Johns Hopkins Medical School.—The faculty of the Johns Hopkins Medical School has completed the necessary arrangements for opening the school on October 2d next. According to the terms of Miss Garrett's gift, the school will be open to women on the same terms as men.

A Centenarian.—Mrs. Hannah Stevenson, of Brookfield, Mass., has just celebrated her one hundredth birthday. She is said to be mentally bright and active, though she has smoked tobacco and taken snuff for the last eighty-one years, to say nothing of a moderate indulgence in opium. Her husband was a minute-man in the War of 1812.

Dr. Carl Fischer, of Sydney, N. S. W., died of gangrene of the leg and erysipelas, in Chicago, June 22d.

Death of a Japanese Medical Student.—Helen Bruce, a Japanese young woman, who had come to this country for an education, and who had graduated from Wellesley College and was taking a medical course, died at the Salem, Mass., Hospital, on June 20th, of consumption, aged twenty-four years.

St. John's Guild.—The needed repairs on the Floating Hospital of St. John's Guild have been made, and the barge is ready to make daily trips. A new building has been erected for the Sea Side Hospital. Contributions may be sent to W. L. Strong, Treasurer, 501 Fifth Avenue.

The Rev. Dr. E. P. Thwing, a missionary in China, died suddenly in Canton, a few weeks ago. He was suffering from typhoid fever, and death was caused apparently by intestinal perforation.

A Physician Convicted of Murder.—Dr. G. S. Wyckoff, a physician of Western Pennsylvania, was recently convicted at Kittanning of complicity in a bank robbery. A man was killed by one of the burglars, and Dr. Wyckoff being brought to trial for the crime was found guilty of murder in the second degree.

Bees and Rheumatism.—Some two years ago an Austrian physician advanced the remarkable theory that persons who have been stung by bees enjoy an immunity from the effects of the bee-stings for varying periods, and that, moreover, the virus of the bee-sting is an infallible remedy for acute rheumatism. The latter part of the theory, according to the *Mediterranean Naturalist,* has received unquestionable confirmation from a custom of the country people in Malta. Bees are plenty in the island, and bee-stings are in such repute as a cure for rheumatism that resort to this primitive method of inoculation has been a common practice in severe cases for generations, the results having been most satisfactory to the patients.

Society Reports.

American Medical Association.

Forty-fourth Annual Meeting, held in Milwaukee, Wis., June 6, 7, 8, and 9, 1893.

(Special Report by Telegraph to the MEDICAL RECORD.)

(Continued from Vol. xliii., p. 761.)

SECTION IN MEDICINE.

THIRD DAY, THURSDAY, JUNE 8TH.

Brief Clinical Memoranda.—A paper was read by DR. H. H. DIDAMA, of Syracuse, with this title. The matters considered were as follows:

1. *An Available Catheter Lubricant.*—The physician may find himself obliged to pass the catheter, and may have no available lubricant. It is well to remember that saliva will render the catheter sufficiently slippery to insure its penetration into the bladder. It will be said that the saliva is full of micro-organisms and all sorts of impurities; but if the mouth is clean, its secretion will answer in an emergency.

2. *Facile Reduction of Prolapsed Hemorrhoids.*—The mass should be well cocainized and smeared with vaseline. Have the patient assume a squatting posture, and instruct him to bear down as in defecation. He will at first, on account of the pain, shrink from so doing, but can do so if encouraged in his efforts, which will relax the sphincter and insure the return of the mass by proper upward pressure thereon.

3. *Preparing Hemorrhoids for Injection.*—Anæsthetize the patient by the A. C. E. mixture. Dilate the sphincter well by digital force. Bring down the tumors, and ligate all those with a small pedicle by a ligature left tied in a bow-knot. Next inject six drops of a mixture of carbolic acid, one part; cocaine solution (eight per cent.), and glycerine, of each two parts. The blood is clotted in a few minutes, and this clot prevents the absorption of poisonous material. In the course of five or ten minutes the knots in the ligatures may be untied and the latter removed. The patient, on recovery from the anæsthetic, can at once get up and resume his business. The strangulated tumors will quickly shrivel up and fall off in the course of a few days.

4. *Ready Relief from Lumbago.*—This may be obtained by the use of large dry cups along the ridge of the lower spinal muscles. The cups of a conical shape, similar to a urinary deposit-glass, are preferable.

Typhlitis.—"Medical Treatment of Typhlitis and Appendicitis," by Dr. F. W. Ross, Elmira, N. Y.; "An Unusual Case of Appendicitis," by Dr. J. H. Musser, of Philadelphia; and a "Discussion of Dr. Musser's Case and of Appendicitis," by Dr. Joseph Price, of Philadelphia. The papers were not read, but a general discussion of the whole subject suggested by them was opened by Drs. McLean, of Detroit, and Price, of Philadelphia.

DR. J. J. WHITTAKER, of Cincinnati, believed that many of these cases are really tubercular in origin. The cæcum is a stagnant reservoir, into which sputa, if swallowed, are run by intestinal peristalsis. The removal of the appendix may not cure all cases of right iliac inflammation, as the latter process may recur in this locality. Such recurring cases should be referred to the surgeon. To rely on pain at any one point as an indication of the presence of pus is a fallacious guide, as in most cases pain is not circumscribed, but diffused.

DR. JOSEPH HOFFMAN, of Philadelphia, stated that statistics showed that, in 18,000 cases of right iliac inflammation, absolute disease of the appendix existed in 91 per cent. and typhlitis in only 9 per cent. We must distinguish, between cases of typhlitis, those due to simple impaction (fecal or otherwise) and those due to peritoneal twists. The appendix has a mesentery of its own, and the cæcum twists in a manner peculiar to itself. We have therefrom inflammations of simple congestion with pain, tympany fever. These cases are often called typhlitis, and recover under the use of opium, though calomel and a saline are preferable. They are *not* cases of true appendicitis. Cases with obstruction or impaction may get well without operation, just as a bullet may become encysted and do no harm. An accumulation of pus here may burst open in the loin or groin or (as he knew to occur in one instance) be spat out. The origin of the appendix from the gut is constant, but the revolutions and twists of the latter may place it in various positions. If the exhibition of a saline, by clearing out the bowel, does not relieve the pain, the accumulation of pus is strongly suggested.

DR. L. S. MCMURTRY, of Louisville, believes that cases of appendicitis are far more common than is generally supposed. Many of the fatal cases are recorded as peritonitis on the mortality reports of large cities. In males ninety per cent. of all cases of peritonitis are, he believes, cases of appendicitis.

More has been learned about the pathology of the abdominal contents by operation during life than by post-mortem examination. Many cases of peritoneal inflammation of all kinds are the results of appendicitis. Of course, he does not advise operation on all cases, but it is a fact that a majority of them come either to an operation or die without. The majority of cases do not eventuate in recovery by expectant treatment.

DR. H. A. HARE, of Philadelphia, believed that opium was not to be commended in this class of maladies. It masks the pain, tenderness, and fever, so that the collection of pus proceeds unnoticed. Patients should be kept on a pre-operative diet, so that, if operation is hurriedly called for, it can be undertaken without at all disturbing the bowels. Ice, hot and cold injections, may be used to combat the inflammatory process. All purgatives should be avoided before operation. Dr. Hare does not believe that all cases of peritonitis in the male are of appendix origin. He quoted the statistics, published some years ago by Dr. Fitz, of Boston, showing that the death-rate after operation was greater than when the cases were treated by medical means.

DR. CHARLES A. L. REED, of Cincinnati, quoted cases to show that all physicians do not recognize these cases early enough to give the surgeon a fair chance if he is called upon to operate. Recurrent cases ought to be operated upon without reference to the existence of pus, so that a procedure of election may be undertaken at the proper time, and not when the patient is in a hopeless condition. He believes that there is no such thing as "idiopathic" peritonitis, and that future years will show, on account of the early recognition of the gravity of cases, a marked improvement over Dr. Fitz's old figures.

Diphtheria.—DR. J. B. MURFREE, of Murfreesboro, Tenn., read a paper on this subject. He gave a general survey of the history of the disease, with special reference to its introduction into the United States.

DR. JENKINS, of Iowa, in discussing the treatment of this disease, stated that he prefers the local application of carbolic acid or persulphate of iron solutions. The latter coagulates the albuminous exudates, contracts the vessels, and shrinks the membrane off. If the larynx is affected, he places much value on calomel.

Aspiration in Acute Pleuritis.—DR. E. J. C. MINARD, of Brooklyn, read a paper on "Early Aspiration in Acute Pleuritis." While calomel, opium, veratrum, and poultices all have their value in the therapy of this affection, she believes that early aspiration has more than a merely palliative effect. She finds the diagnosis sometimes difficult, as accompanying congestion elsewhere may cause far more pain than that of the initial malady. Thus she has seen a case of pleurisy with intestinal engorgement where the pain attendant on the latter was so great as to suggest appendicitis. She has seen aspiration of ten ounces of fluid reduced the temperature from 104° to 98.3° F. in three hours. The general practitioner should be prepared to do the operation.

DR. J. M. ANDERS, of Philadelphia, thought that in

these cases the initial exudation of fluid filled the chest about one-half. Then in twenty-four to forty-eight hours there was a sudden filling of the cavity to its maximum. As regards the indications for operation, urgent dyspnœa (even orthopnœa), especially at night, is a most important feature. When it occurs, aspiration should at once be made, even though there is some fever and embarrassed circulation. The relief, however, is apt to be but temporary, as the fluid reaccumulates. Fever means an active inflammatory process and progressing fluid leakage, not a mere transudation, but a true inflammatory exudation. If there is no fever, how long shall we wait before tapping? He thought not over ten days. Now, we must remove only a portion of the fluid at once, and repeat the tapping until the tendency to recurrence seems to be overcome. The effect of suddenly taking away too much pressure from the displaced heart may lead to syncope.

Dr. Scott, of Cleveland, thought that large exudations were more apt to occur in subacute rather than in acute cases.

The Detection and Significance of Carbohydrates in the Urine.—Dr. Charles W. Purdy, of Chicago, read a paper with this title. He discussed the various chemical tests for glucose, and pointed out the fallacies of each. Sugar is always present in minute amount in healthy urine, but does not react to our ordinary chemical tests. Hence its significance is physiological, and not clinical. Many causes will produce glycosuria. His favorite test-fluid is made as follows:

Sulphate of copper (pure)	48 grains.
Caustic potash (pure)	144 grains.
Strong ammonia, U. S. P.	9 ounces.
Glycerine (pure)	6 drachms.
Distilled water	to 20 ounces.

The solution should be prepared by dissolving the copper sulphate in part of the water and adding the glycerine. In another portion of the water dissolve the caustic potash. Mix the two solutions and add the ammonia. Finally, with distilled water bring the volume of the whole to twenty ounces. Keep well corked, and filter in two or three months if the solution becomes in any way cloudy.

The principle upon which the application of this test depends is the fact that a definite quantity of the solution is reduced upon boiling by a definite quantity of grape sugar, causing complete disappearance of the blue color, and leaving at the exact point of reduction a brightly transparent and colorless fluid. Thus ten drachms of this solution are reduced upon boiling by exactly one third grain of grape sugar.

Dr. N. S. Davis, Jr., of Chicago, corroborated the value of this test-fluid. He thought, however, that the Fehling solution made and kept in different bottles for each ingredient perfectly reliable.

Brandt Method of Treating Typhoid Fever.—A discussion on this subject was opened by a paper by Dr. Chr. Sihler, of Cleveland. He believed that this method ought to be, can be, and will be used in private practice as well as in hospital. In three years and a half he has given over five thousand baths in ninety-five cases, without accident or incident. Most of his cases have been among laborers and artisans, who have carried out the method just as well as those in better circumstances. As to objections, the patient at first rebels, but sleeps so much better after the bath that he comes to like it. The method seems complicated to some and to others dangerous, but it is found that a patient so treated comes through the disease with his nervous system in a much better condition and is spared much of the usual tedium of convalescence. The bath-tub can be portable and sent by the physician to the house. The latter should have one or two nurses trained in the special technique, who can give the necessary instructions to the family, who can then take charge of the case themselves. A bath at 68° F. for fifteen minutes is better than one at 70° F. for twenty minutes, for it is in the last five minutes in which the shivering is especially noticeable. The first bath should be given as early as possible and Brandt's original instructions should be followed to the letter. Don't counteract the good effects of the baths by giving too much whiskey.

A paper on the same topic, by Dr. W. Gilman Thompson, of New York, was read by the Secretary. He gave the records of ninety-five cases, treated in the New York and Presbyterian Hospitals. He prefers to give half an ounce of whiskey fifteen minutes before each bath, and lays much stress on the accompanying cold affusions on the head. The bath is followed by a glass of hot milk containing malt extract, and a cold compress may remain laid on the abdomen. In nervous patients the first bath may be begun at 90° F. Menstruation, and even pregnancy, need not contraindicate this method. Out of the 95 cases there were 7 deaths, 4 from intestinal perforation and peritonitis, 2 from hemorrhage, and 1 from pneumonia. Tubbing has not shortened the entire duration of the disease nor lessened the frequency of relapses, but complications have been far less numerous. In one case there were pains in the hands and feet, suggesting the lesions of peripheral neuritis; but the same pains occurred in typhoid cases not bathed, and could in nowise be attributed to bathing.

Typhoid Fever.—Dr. James B. Herrick, of Chicago, read a paper giving an analysis of "One Thousand Cases of Typhoid Fever," going especially into symptomatology. As to treatment: rest, diet, sponging, ice pack and coil were used, also antipyretics. The mortality of the cases was about seventeen per cent.; but of seventy-six cases from private practice only one had died.

The general topic suggested by the last two papers was discussed by Dr. Joseph Eichberg, of Cincinnati. He was not prepared to give up everything for the Brandt method. In his hospital practice antifebrine had given better results than the bathing.

Dr. Loughran, of Indiana, preferred intestinal antisepsis, which he claims to secure by naphthalin.

Dr. J. M. Anders, of Philadelphia, thought that, if shivering came on early in the bath, the patient should be at once removed. He advocates the Brandt method and condemns the coal-tar preparations.

Dr. Quine, of Chicago, does not believe that we should tamper with the natural course of temperature. He believes that tubbing lengthens out the disease and makes relapses more common. He has seen death occur in the bath, and also one case of catarrhal pneumonia develop. Also he thinks that the coal-tar series predispose to relapses and intestinal hemorrhages.

The paper was also discussed by Drs. Scott and Herrick, of Cleveland, Jenkins, of Iowa, and by the Chairman. The opinions of the Section seemed to be about evenly divided as to the advisability of bathing.

Fourth Day, Friday, June 9th.

The Association of Diseases and Morbid Processes.—A paper with this title, by Dr. H. A. West, of Galveston, Tex., was read by the Secretary. The paper discussed the histories of various cases where an autopsy revealed the existence of processes to the existence of which no clue was given by the clinical features of the case. Special stress was laid upon the fact that many diseases, from which recovery seems perfect, leave the body in a condition of great susceptibility to the action of further morbific agents. A classification was also made of the various morbid processes which are found associated with each other.

In discussing this paper, Dr. Charles W. Dennison, of Denver, noted the common association of fibrosis with tuberculosis. He believes that those masses of new deposit which we call "tubercle" are in reality the "prison vault" of the bacilli. The latter always signifies or induces an increase of connective tissue and cell-proliferation. Tuberculin has a contractile influence on these tuberculous masses, and not a softening influence unless

used in such large doses as to cause necrosis, a thing which he studiously avoided.

Election of Officers.—The following officers of the Section were elected for the coming year:

Chairman, Dr. H. A. Hare, of Philadelphia; *Secretary*, Dr. W. H. Washburne, of Milwaukee; *Executive Committee*, Drs. I. E. Atkinson, of Philadelphia, N. S. Davis, Jr., of Chicago, and C. G. Stockton, of Buffalo.

During the session the following papers were read by title: "Some Thoughts on the Differential Diagnosis of Chest Disease," by Dr. J. G. Truax, of New York City; "The Treatment of Pyrexia," by Dr. Jas. Witherspoon, of Columbia, Tenn.; "The New Chemistry of the Stomach as a Means of Diagnosis and a Guide to Therapeutics, based upon the Results of One Thousand Analyses of Stomach Fluids," by Dr. J. H. Kellogg, of Battle Creek, Mich.; "The Value of Belladonna and Strychnine in Conditions of Circulatory Depression," by Dr. H. A. Hare, of Philadelphia, Pa.; "The Management of Hysteria by the General Practitioner," by Dr. W. F. Rochelle, of Jackson, Tenn.; "Hæmatoma Auris," by Dr. H. A. Matzinger, of Buffalo, N. Y.; "Aneurisms considered Medically rather than Surgically," by Dr. O. C. McNary, of Leavenworth, Kan.; "Insanity of Physiological Epochs," by Dr. A. W. Hurd, of Buffalo, N. Y.; "A Case of Cancer en Cuirasse, with Report of an Autopsy and Illustrations," by Dr. J. B. Marvin, of Louisville, Ky.; "The Cancer Parasite from a Microtechnical Stand-point," by Dr. A. P. Ohlmacher, of Chicago, Ill.; "Studies in Immunity," by Dr. D. N. Kinsman, of Columbus, O.; "A Preliminary Report on an Inquiry as to the Frequency of a Form of Kidney Degeneration in which Albuminuria may not be regarded as a Symptom," by Dr. D. D. Stewart, of Philadelphia, Pa.; "The Origin and Clinical Significance of Uric Acid," by Dr. Victor C. Vaughan, of Ann Arbor, Mich.; "Experiments with Trional as a Hypnotic," by Dr. W. C. Krauss, of Buffalo, N. Y.; "Typhoid Fever," by Dr. M. J. Crouch, of Union, Ky.; "A Case of Fever of Undetermined Type," by Dr. Starling Loving, of Columbus, O.; "The Treatment of Diabetes Mellitus by Jambul (Sygygium Jambolaneum)," by Dr. James Tyson, of Philadelphia, Pa.; "Heat in the Treatment of Disease," by Dr. Chas. H. Shephard, of Brooklyn, N. Y.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

First Day, Tuesday, June 6th.

The Section limited the number of papers to be read to forty, which had compelled the Chairman to reject some from very able men.

Some General References to Obstetrical and Gynecological Advancement was the subject of the address by the Chairman, Dr. John Milton Duff, of Pittsburg. He thought the Section should publish a volume of proceedings, more especially in order to put on permanent record the discussions. The specialist should be an evolution from the general practitioner. Too many of our recruits had not had sufficient experience to be taken into the ranks of the Section. Sufficient instruction was not given in obstetrics and diseases of women in teaching institutions. He believed it was no exaggeration to say that fifty per cent. of graduates had never witnessed a labor nor introduced a speculum. We should demand of teaching institutions that they appoint professors for their broad ability to teach, and not because of their ability to purchase position. Many young men showed a willingness to do cœliotomy who were unable to repair a vesico-vaginal fistula or determine the diameters of the pelvis. The general and special medical journals were steadily improving in quality; and Dr. Duff said he hesitated, through fear of showing his inferiority, to make any criticism in this direction. He had heard, however, an expression of opinion on the part of some that there ought to be more leading articles from the editors.

Hysterectomy, he thought, had been shown by statistics to be a justifiable procedure in cancer of the uterus. Fully ninety per cent. of cases coming to the gynecologist were, however, inoperative; and this suggested the responsibility of early diagnosis by the general practitioner.

Referring to operations on the insane, Dr. Duff said it was absurd for editors or others to suggest that gynecologists seriously considered removing the appendages for all cases of insanity. But insanity was not a panacea for pain, and insane women should not be denied the benefit of surgery for disease which was given her well sisters. It should be regarded as a crime against society at the present time for those mentally unsound to propagate the species. The copulative act should be performed only in the best physical and mental condition of both father and mother.

The field opened up by the revival of pubectomy was alluded to. The rate of mortality from puerperal sepsis was now lower in institutions than in private practice—a suggestive lesson to general practitioners and obstetricians. Exploratory operations were not without danger, and should be undertaken with precaution.

The Causes of Diseases of Women.—Dr. Charles P. Noble, of Philadelphia, read a paper on this subject, treating of it in a systematic way, dividing the causes as follows: 1, Imperfect development of the sexual organs; 2, gonorrhœa; 3, pelvic inflammation following childbirth; 4, lacerations due to childbirth; 5, miscellaneous causes—such as constipation, erroneous methods of living, bad dress. Among the causes of imperfect development one could recognize forcing at school, want of bodily exercise, work in factories, etc. Absence of menstruation or scanty flow was seen in some corpulent women; but he was unable to say what was the relationship.

This class of patients were apt to show imperfect development of the general system, to have chorea, etc. Exercise in the open air, iron, arsenic, tonics, were indicated.

Dr. Howard A. Kelly, of Baltimore, had given this subject of preventive disease in women much thought, and believed a book could well be written upon it. In many instances the cause of imperfect development of the genitals and of the general system was to be traced back of the child to the poorly nourished and ill condition of the mother before and after conception. Gonorrhœa in children was not an uncommon first cause of disease in women. Tuberculosis had been found as the cause in one out of five of his operative cases of pelvic inflammation.

Dr. E. P. Davis, of Philadelphia, thought neuralgias during the pregnant state, especially of the sciatic type, were often avoidable by early attention to constipation and general habit.

Dr. Joseph Price had found vaginitis in infancy not an uncommon cause. Gonorrhœa was now a frequent source of pelvic inflammation, while it was unusual before the wide development of the railroad system. Referring to the favorable statistics of some lying-in institutions, regarding the mortality from puerperal sepsis, he said they did include the mortality from other causes. In an institution with which he was connected, not a child had been lost among 1,300 births.

Dr. Reed, of Ohio, had found the usual cause of one daughter only in a family of several failing to menstruate at the usual time to be due to imperfect development. The doctor erred in telling the mother it would be all right after marriage; for unless measures were taken for better development, the marriage would be sterile—the patient would suffer.

Dr. Carstens, of Detroit, did not believe gonorrhœa so common a cause of pelvic inflammation. The more frequent cause was the vicious habit of women producing abortion with dirty darning-needles, etc.

Dr. Hoff, of Ohio, had practised nearly half a century, and had not seen half a dozen cases of gonorrhœa in daughters. Perhaps it was not so common as it had been represented in Philadelphia.

Dr. Hoffman, of Philadelphia, did not believe the vaginitis of children was often of gonorrhœal type. He had often found tuberculosis in the pelvis, and believed it frequently followed pus collections, if it was not caused thereby.

Dr. Sell, of New York, had observed gonorrhœa in children, and even in a minister's family from supposed moral country districts: he would not mention the State.

Dr. McMurtry, of Louisville, thought some doctors were yet guilty of causing much disease among women by using caustics to the cervix, etc.

Puerperal Hemorrhage.—Dr. James P. Kerr, of Pittsburg, read the paper. The importance assumed by puerperal hemorrhage among medical and surgical subjects was due to its frequency, and the fact that, unless it was met by speedy and efficient remedies, it would end fatally. Practitioners were too apt to consider all cases of labor as normal, and not to make any preparations for this accident. One should obtain all the information possible regarding whether there was a family history of bleeders, of individual menstrual peculiarity, hemorrhage at previous confinements, etc.

The author mentioned causes, which, naturally, were various, then related one personal experience, and passed to the general subject of treatment. His case was that of a woman, to whom he was called for the first time after the beginning of hemorrhage. She gave a good history, having had no trouble at previous confinements, but her feet were swollen and albuminuria was not improbable. Without warning, a sudden gush of blood took place, and when he arrived she was in collapse and died within an hour from the commencement of the hemorrhage. The treatment had been podalic version and delivery, general and uterine stimulants, and uterine manipulations. The uterus did not contract in spite of the use of ergot, hot water, ice, vinegar, etc. The exact cause of the hemorrhage was not learned. Severe post-partum hemorrhage was generally a preventable accident by skilful management of the third stage of labor. Attention should be given to securing contraction of the uterus by carefully following the organ down with the hand when the child was expelled. If the uterus were soft and flabby, give a preparation of ergot. Misrachi claimed that caffeine acted more readily than ergotine, especially if the patient had lost blood. If the patients were known to be bleeders, J. M. Duff gave strychnine, $\frac{1}{60}$ to $\frac{1}{30}$ gr., three times daily for about two months before term. Bossi recommended hydrastis canadensis. Murray advocated plugging the vagina during hemorrhage if the os were undilated, but the author feared hemorrhage would go on within the womb. When the uterus was empty it might be packed.

Kocher, he said, recommended a method which was at least novel: invert the uterus, put a rubber band around the neck, remove the band after six hours, and replace the organ. If the circular artery were injured, it should be ligated. Plugging of the vagina was good treatment in hemorrhage from the cervix, the seat of carcinoma. Transfusion was useful as a palliative.

Dr. Barker, of Philadelphia, had learned from an experience with one case that ice, hot water, and ergot were entirely inefficient in severe post-partum hemorrhage, and their use led to waste of precious time. He would recommend the tampon. In slight hemorrhage the measures first named would effect control. He thought the number of cases seen by one was in inverse ratio to his experience in midwifery. The youthful doctor was apt to be meddlesome through over-anxiety.

Dr. E. P. Davis said it was very difficult for a serious hemorrhage from the uterus to continue while one kept one hand in the uterus and compressed from without with the other. In England they were again discussing compression of the abdominal aorta.

Dr. Morehead, of Wisconsin, had saved a case, twenty years ago, by compressing the abdominal aorta with the hand in the uterus, re-enforced part of the time by the other hand pressing upon the uterus from without. Another case was seen by him later, and treated successfully in the same manner.

Dr. Montgomery, of Philadelphia, had found strychnia excellent in persons showing tendency to hemorrhage, and also in a case of hemorrhage until shock had passed. He doubted the practical value of compression of the abdominal aorta, especially with the hand in the uterus, as part of the blood-supply came from the ovarian arteries, which arose higher on the aorta. The benefit experienced in Dr. Morehead's cases was probably due to the presence of the hand in the uterus, just as it was in other cases to gauze.

Second Day, Wednesday, June 7th.

The Routine Practice of Administering Ergot after the Third Stage of Labor.—Dr. T. Ridgway Barker, of Philadelphia, read a paper in which he advocated the routine practice of administering ergot after the third stage of labor in order to avoid hemorrhage and its accompanying dangers. It had been objected that it caused more frequent contractions and suffering. While, the first two hours, the discomfort was somewhat increased, this was more than offset by the advantages. Its use insured the woman against possible uterine relaxation. It reduced the size of the uterus and contracted the blood-vessels in the walls. It closed the uterine sinuses. It reduced the area of the placental site and diminished the danger of infection. It shortened the duration of the after-pains. It hastened the physiological process of involution. The author preferred the administration of ergotine in tablet form, one-fourth of a grain. He had never known its use to be productive of harm.

Dr. Joseph Eastman, of Indianapolis, objected to the routine use of ergot, because it substituted tonic (unnatural) for clonic (natural) uterine contractions. He was confident he had seen subinvolution of the uterus produced by the routine use of ergot. Strychnia permitted of more nearly the physiological action of the uterus.

Dr. J. Murphy, of Wilkesbarre, had found mistletoe stop hemorrhage where ergot had failed.

Dr. Duff, the Chairman, had read a paper on the same subject at the last meeting, taking the opposite view and opposing the routine use of ergot. It caused abnormal to take the place of physiological uterine contraction in ordinary cases in which no interference was indicated. Nature should not be forced when she was doing her work normally. The obstetrician could usually tell when hemorrhage or trouble was threatened, and strychnia would often be found preferable to ergot.

Dr. C. S. Bacon, of Chicago, had ceased the routine administration of ergot, because it had tended to dry up the milk secretion. Another objection was the uncertainty of its preparation.

Repeated Extra-uterine Pregnancy, with Report of a Case.—Dr. George J. McKelway, of Philadelphia, read the paper. He advocated the removal of the appendages on both sides in all cases of tubal pregnancy on one side, because of the likelihood in such cases for subsequent pregnancy to be also extra-uterine, subjecting the patient to the attendant dangers and the necessity for submitting to a second operation. The case related was of this nature, and many others similar found in literature were cited. In at least one there was evidence of double pregnancy in the same tube on different occasions. Lawson Tait and Bland Sutton claimed that many cases, heretofore regarded as hæmato-salpinx and pelvic hæmatocele, were really the result of tubal pregnancy. This fact, and the well proven ones of repeated extra-uterine pregnancy, showed the likelihood of disease on the opposite side, and pointed to the propriety of removing both tubes and ovaries.

Dr. H. J. Boldt, of New York, related a case, to impress the view which he held in opposition to the author, that where the opposite tube and ovary were healthy, they should be allowed to remain. Where, however, they were diseased, they should be removed in the class

of cases under discussion, just as during an operation for pyosalpinx or other condition.

Dr. Eastman, of Indianapolis, objected to operating on healthy appendages, because on one side there might be tubal pregnancy, and said the danger of having to submit to a second operation was more than offset by the enhanced danger of the double procedure at the same sitting.

Dr. H. T. Hanks, Howard A. Kelly, C. R. Reed, C. P. Noble, Carsten, and McClaren favored removal of the appendages on the opposite side when they were diseased, but objected to the procedure when there was no evidence of disease.

Dr. Kelly thought especial attention should be given the pathological condition. The studies of his assistant, Dr. Williams, pointed to crypts or diverticula in the tube, sometimes observable only under the microscope, as the cause of tubal pregnancy, the ovum becoming lodged in one and unable to pass to the uterus. But we could not say that this condition existed, making tubal pregnancy probable, in a tube which appeared to be normal, simply because tubal pregnancy had occurred on the other side.

Dr. O. B. Will, of Peoria, referred to the potency of the tubes as bearing on the etiology.

Porro *vs.* Cæsarean Section.—Dr. J. H. Carsten, of Detroit, had reported a successful Porro-Cæsarean section, in the *American Journal of Obstetrics*, last year, and it was peculiar that he should be able to report another within six months. The second patient was of German parentage, and in 1891 Dr. Carsten had helped to perform craniotomy upon a dead child. She was told of the danger of a second pregnancy, but kept it secret until two weeks before term. She was taken to the hospital, and at the commencement of labor prepared for operation. The bag of waters was first ruptured, and then the usual incision was made. The uterus was rolled out *à la Müller*, an elastic ligature was applied, then the uterus was quickly opened, and a child weighing eight pounds was removed. It was yet undecided to do Porro operation; but as all the physicians present were in favor of it, he applied the clamp and removed the uterus and ovaries. The after-treatment was like in any other cœliotomy, and the recovery was smooth. The only question in his mind was whether he should have done the Porro or have left the uterus. Was it right to deprive the woman of the possibility of becoming pregnant again, since she desired a child, and the one might possibly die? Should she be subjected to the dangers of repeated Cæsarean section? Was it right to propagate the hereditary tendency to deformity?

Dr. Carsten was inclined to do Porro for three reasons: 1, It could be quickly performed; 2, it was less dangerous; 3, the woman's future was free from any such dangerous operation.

A Successful Case of Cæsarean Section.—Dr. Giles S. Mitchell, of Cincinnati, read the history of the case. The paper stated that the operation was demanded because of a hard tumor filling the sacral curve, narrowing the conjugate at the brim to one and one-half inch. The nature of the tumor was not named. The patient refused to go to a hospital, and the operation had to be performed in tenement surroundings. He did not wait to try forceps, but operated soon after commencement of labor. Thirty minutes were consumed. It was usual to make the abdominal incision so that only one-third extended above the umbilicus; in his case two-thirds lay above the umbilicus.

He also varied from the custom, and used but one line of sutures in the uterus, that through the peritoneal covering—continuous, instead of interrupted. The quickness of the operation, due to the manner of operating, and not interfering with the appendages, contributed to the recovery, as did also the fact that there had been no injury to the soft parts by vain attempts at delivery with forceps. He thought that at present craniotomy on the living child was never justified.

Dr. Noble, of Philadelphia, had done Cæsarean section twice successfully; had been connected with two other cases, also successful. He had done one symphyseotomy successfully; had witnessed another case, which was also successful; and he believed symphyseotomy should supplant Cæsarean and Porro where the diameter was not under two and three-quarter inches.

There was no reason why a rachitic woman should be subjected to Porro because of hereditary propagation. She could bear healthy children like any other woman.

Dr. Joseph Price thought the indications were different in Porro and in Cæsarean section. He had done Porro six times, always in tumor. All the patients recovered.

Methods of Removing the Uterus for Fibroids, with Cases.—Dr. J. N. Martin, of Ann Arbor, read a paper on this subject. Of thirteen cases of hysterectomy operated upon by him for fibroids, two patients died—one, because of the size of the tumor and seriousness of the operation; in the other, because of supervention of cerebral trouble with hemiplegia.

In six cases the stump was treated intra-peritoneally, four called for total extirpation.

As to methods, the author claimed no originality. The method must be adapted to the case, and a combination might be best. He approved of that method, if conditions permitted, which left the cervix with its stump, treated intra-peritoneally, for the following reasons: 1, it left a stronger floor for the pelvis without a cicatricial mass, and left the vagina in better condition than when the cervix, too, was removed; 2, it was better than fixing the stump in the abdominal wound, as it permitted free dilatation of the bladder, and there was no contraction. Recovery was more rapid, as there was no sloughing mass left to suppurate or interfere with union.

The vagina was left in better condition than after Byford's method, as in the latter he believed the cervix and tissues about were so twisted out of shape as to leave them to separate. But if the intra-peritoneal method were to be adopted, it was necessary to control hemorrhage, do an aseptic operation, and drain through the posterior cul-de-sac into the vagina.

Methods and Material in Abdominal and Pelvic Surgery.—Dr. Joseph Price, of Philadelphia, read a paper with this title. It was composed largely of surgical moral epigrams. The openings were many and wide for difference of opinion. Ours was a great universe, in which we were all pupils, gaining with a humiliating tardiness the lessons of our science. We were not so tied to our present methods that we would not welcome better ones. The responsibilities of our profession were too grave, our work, when wisely and skilfully done, too beneficent in its character, for us to go on repeating errors. There was no time when we were so happy in being at home as when our critics called. New and powerful impulses were carrying forward the profession. Reverence for antiquated methods had lost its force. We accepted only those facts which withstood the severest clinical tests.

To elicit discussion, Dr. Price gave his opininn upon some disputed points. Some, briefly stated, were the following: Vaginal hysterectomy for diseased appendages was a very imperfect and dangerous procedure in the hands of every one. The adhesions, omental and intestinal, commonly found in the removal of all adherent forms of disease, must be dealt with from above. Hysterectomy for metritis and for prolapsus was unjustifiable.

In cases of peritonitis, treatment must be prompt, radical, and thorough. Seek the cause; the abdomen once open, there should be no hesitation in removing it; then establish drainage.

Opium should be absolutely avoided. The one saving method of any variety of general peritonitis was abdominal section and irrigation. Many lives had thus been saved. Leave no operation incomplete. Close holes into the intestine, should they be made during breaking up of adhesion. Pain after operation was likely to be due to distention.

Give salines before, and distention would not be likely to follow operation. In operations, damp, cold rooms and corridors were to be avoided. It was important to use warm, dry blankets. An operating-table made of manifold coils of steam pipe was a simple and perfect way of treating shock. Unnecessary prolonged anæsthesia should be avoided. It mattered not how chloroform killed, it did so oftener than ether, and should not be used. He protested against rude, rough handling of patients as a Kentuckian would a package of fine old bourbon. The operator should have an accurate knowledge of his materials. He condemned catgut, and used fine silk.

Officers Elected.—At this juncture, Dr. Joseph Eastman, of Indianapolis, was elected Chairman, and Dr. McKelway, of Philadelphia, Secretary of the Section for the ensuing year.

The papers by Drs. Martin and Price ware discussed together, the remarks being directed chiefly to the methods of operating for fibroid tumors. Most of the gentlemen emphasized the stand taken by Dr. Martin, that the procedure should be varied according to the case. Much was said about intra-abdominal but extra-peritoneal method of treating the stump, leaving the cervix and covering it with flaps. It was participated in by Drs. Eastman, Noble, McLaren, Reed of Cincinnati, Boldt, H. A. Kelly, H. O. Marcy, McMurtry, Humiston, C. R. Reed, Carsten, E. P. Davis, and the authors.

Dr. Reed, of Cincinnati, used chloroform, and said he had never seen but one patient die on the table in anæsthesia, the mixed vapors being used. When chloroform killed, he knew it; when ether killed, it was by pneumonia, nephritis, or uræmia. He had had four deaths in which ether was the cause some days after operation; none from chloroform.

Dr. Boldt advocated catgut.

Dr. Kelly would never use it again, having lost by sepsis carried by it four cases after a long series of successful cases of cœliotomy. He now used only fine silk.

Dr. Carsten had come to use only kangaroo ligature.

The discussion revealed a growing distaste for attaching some supposed inventor's name to a given method of operating. Dr. Marcy expressed his feeling on the subject by allusion to the story of the father who said to his boy: "Horatio, Horatio, don't attach your name to a speculum and have it go dangling down the ages like a tin can fastened to a dog's tail, for I have been your father."

Dr. Price said Leidy was once lecturing on the kidneys, and forgetting the name of certain little bodies, a student remarked, "Malpighian." "Oh, yes, I wish old Malpighi was in hell!" It was results posterity would be interested in, not names.

Dr. Price was the only one who advocated rather warmly supra-vaginal hysterectomy and fixation of the pedicle in the abdominal wound; the reason being that out of over forty cases he had lost none. He would do total extirpation in preference to leaving the cervix as in what had been spoken of as Baer's method, although it had been described before Baer had done it.

Third Day, Thursday, June 8th.

Ventral Hernia following Laparotomy—Its Cause and Means of Prevention.—Dr. H. O. Marcy, of Boston, presented a paper on this subject, and said: "Although we live in the era which is denominated revolutionary in the science and art of surgery, he who proposes modifications to long-established rules should do so only after the most convincing evidence of their manifest advantage and importance." It was admitted that about ten per cent. of all laparotomies resulted in ventral hernia; and in order to prevent this, it was quite the standard rule to apply a lacing abdominal support to be worn for months. But it was ineffectual.

The importance of including the peritoneum within the sutures was early shown by Sir Spencer Wells, who advised the approximation of the divided edges of the wound with the utmost care.

During the past eight years he had employed exclusively the buried tendon suture in closure of abdominal wounds, except for a few months when he could not get it. For more than ten years previous to this he had used the buried animal suture in a great variety of wounds, and was led to its adoption in laparotomy because of its exceptional value in reinforcing the weakened structures, especially as demonstrated in operations for the cure of hernia. His method from the first had been essentially the same.

The peritoneum was closed separately. This might be effected in a variety of ways. For ease and rapidity, if for no other reason, the continuous suture was to be preferred. He usually employed the double continuous tendon suture (kangaroo tendon), which was easily and rapidly taken by the use of a needle with the eye near the point, and which, by rethreading with the opposite end, permitted the introduction of the suture from either side through the same puncture. The result was an even, continuous, and close apposition of the serous surfaces of the peritoneum, retained at rest without undue constriction. A fine tendon was used. When one of the recti had been incised, it was better to rejoin the muscles by a row of sutures. This finished, he considered the accurate coaptation of the thick investing fascia (linea alba) of the first importance. This was preferably effected by a line of sutures taken in a similar manner to the one closing the peritoneum. The more or less thick layer of fatty tissue was preferably brought into apposition by one or two light lines of running sutures. Care was taken that the needle reënter exactly opposite the point of previous entrance, at right angle to the line of incision, so as to secure perfect coaptation. It was called by him the parallel suture. The suture was buried. A layer of collodion, reënforced with a few fibres of cotton, applied to the well-dried skin, completed the dressing. If the operation had been conducted with aseptic care the wound must remain aseptic. In three hundred laparotomies, where a complete closure of its wound had been thus effected, he recalled but two cases of ventral hernia.

Undoubtedly, one of the most common causes of hernia was the routine use of drainage-tubes, by which a portion of the wound was necessarily kept open. He had used drainage-tubes in scarcely more than three per cent. A second and common cause of ventral hernia was imperfect coaptation of the wound edges by the interrupted suture, even when used with the utmost care. The suture itself, aseptic, aseptically buried, in aseptic wounds, marked one of the greatest advances in modern surgery. In over six hundred cases of wounds thus treated in his hospital the result showed less than two per cent. of suppurative wounds.

Dr. Schooler, of Des Moines, Ia., found interposition of peritoneum or fat between the united parts a chief cause of hernia.

Dr. Cordier, of Kansas City, passed one suture through all the tissues, and thought it could be done so as to secure as nearly as it was possible to do it coaptation of peritoneum to peritoneum, fascia to fascia, etc. The skin was retracted, and the needle passed in, sloping toward the mesial line.

The Propriety of Operative Measures in Pelvic Peritonitis.—Dr. Lewis Schooler, of Des Moines, Ia., read a paper with this title. On the one side were arrayed conservatives, with conservatism carried to timidity. On the other were the reckless and amateur operators, who occasionally might do good, but more frequently harm resulted.

Cases of pelvic peritonitis differed in their effects but little from general peritonitis save in degree and the liability to form abscesses. No cases were idiopathic. When moderate in degree, they recovered spontaneously or with the simplest treatment. The effused lymph might become organized, and after subsidence of inflammation important organs might be hindered in function. Repeated at-

tacks increased the difficulties. In the latter all would agree as to importance of operating. But it was in the acute cases that the skill of the diagnostician and therapeutist was put to the crucial test. When the tubes contained pus or the ovaries were diseased, he would remove them. Intra-uterine treatment in pyosalpinx had not been successful in his hands.

The conclusions of the author were, that in acute cases operate as soon as it becomes evident other measures would fail. In chronic cases there were two periods when operation was justifiable: First, when life was endangered during a recurrence; second, after subsidence of an acute exacerbation. The latter was regarded as the preferable period, but it could not always be secured.

The Essentials of Success in Vaginal Hysterectomy.—Dr. Henry T. Byford, of Chicago, read the paper. The author maintains that vaginal hysterectomy is an operation attended with little danger, and that the present mortality is caused mostly by: 1, operating upon unsuitable cases; 2, imperfection in the technique; 3, mistakes in the after-treatment. He summarizes as follows: 1. Operate only upon cases in which we can operate in healthy tissue. 2. Use the method and manœuvres adapted to each individual case, not adhering rigidly to any one for all cases. 3. Ligature enables to do a more complete operation than forceps, but forceps should be used when ligatures cannot be applied with accuracy. 4. When possible, place omentum between the intestines and the stumps. 5. Draw the ligatured stumps together and attach the peritoneal edges either to the vaginal edges or to each other. 6. Pack iodoform between the blades of the forceps, but do not allow the packing to project upward between the intestines. 7. Leave the packing for four days, as a rule. 8. Begin douches about eight hours after the packing has been removed, and use a rectum-tube the first time. 9. Keep the patient on the back for forty-eight hours. He reports thirty-seven cases, with one death, or a mortality of 2.7 per cent.

Surgical Treatment of Uterine Flexions.—Dr. M. B. Ward, of Topeka, read a brief paper, saying it was his desire to consider briefly the propriety of doing an abdominal section in suitable cases for retro-displacements of the uterus. It was unnecessary to preface his remarks with the statement that he who dared recommend such radical measures for an ailment of so insignificant a character was certain to be severely criticised. In his experience it had been extremely difficult, and usually impossible, to afford permanent relief in cases of chronic retroflexion by methods usually recommended. The larger number gave a history of long suffering, many attacks of pelvic peritonitis, which indicated that serious complications must be overcome before the uterus could be brought forward. It was this class of cases which the paper considered. His custom was to say to these patients that the local treatment would give comfort, and if they could exercise due patience they might be permanently relieved. He always informed them of the possibility of failure. The next plan recommended was to do abdominal section, break up adhesions, remove the appendages, if diseased, bring the uterus forward—all of which could be done quickly, safely, and effect permanent recovery. If there were only suspicion of ovarian disease, leave these organs, if the woman desired children. But from a large experience he could say that in nearly all cases of chronic retro-displacement of the uterus the appendages were seriously diseased.

(To be continued.)

Boric Acid, in daily dose of fifty to seventy-five centigrammes after a purgative dose of castor-oil containing five or six drops of turpentine, has been found by Tortchinsky to diminish diarrhœa, tympanites, and fever in typhoid.

Lead Colic has been treated with antipyrin in daily quantity of one drachm, which is considered by Devic and Chatin better treatment than by any other drug excepting belladonna.

Therapeutic Hints.

In Morphine Poisoning Dr. Daily stretches the sphincter ani with the bivalve speculum as often as respiration flags, and regards it as a plan well worth following.

In Bad Cold gelsemium arrests profuse nasal secretions, quiets headache and neuralgia, subdues cough and pain, favors a re-establishment of the secretions, through its influence upon the skin, kidneys, and gastro-intestinal tract. It reduces temperature and pulse-rate, promotes sleep, and creates a feeling of comfort and well-being without in any way approaching narcosis or destroying the oxygen-carrying capacity of the blood-corpuscles. Ten drops of a reliable fluid extract are dissolved in three ounces of water, and of this a teaspoonful is given every ten or fifteen minutes the first hour, then at less frequent intervals.—Aulde.

Trigeminal Neuralgia.—Dusquenal's crystallized aconitine, $\frac{1}{200}$ grain, gradually increased until numbness is felt all over the body, with chilliness and in some cases even nausea.

Red Iodide of Mercury, in doses increased from one-twentieth to one-sixth of a grain, and iodide of potassium, in twenty to forty-five grain dose after each meal, continued for two to three months, should be given, in addition to aconitine in tic-douloureux, even in the absence of syphilitic history.—Sequin.

Iodide of Potassium, when given in large dose, should be largely diluted. Delavan recommends essence of pepsin and milk.

Indian Hemp, in ten minim dose of the tincture three times daily, is almost a specific in insanity in women due to mental worry or moral shock, and is also of great value in mania and melancholia.—Suckling.

Gall-stone Colic is treated by Thudichum with morphine subcutaneously and large quantities of very dilute lemonade. If collapse threatens, chloroform anæsthesia is recommended.

Caffeine acts directly on the nervous system in vaso-motor heart troubles, and in moderate dose stimulates the heart muscle. Acting upon the cardiac innervation, it provokes dilatation of the vessels. With this drug muscular and nervous troubles of the heart can be combated which previously resisted all treatment. Beginning with daily dose of a quarter to half a gramme, it can be gradually increased until two or three grams, are taken in the twenty-four hours. It is best given subcutaneously, combined with an equal quantity of benzoate of soda.—Ferrara.

A New Tænifuge, proposed by Dr. Duhourcau, is the following combination in capsules:

Extract of male fern	1.20 gm.
Chloroform	3.60 gm.
Castor-oil	3.60 gm.
Croton-oil	gtt. ss.

To be divided into twelve doses.

Mild Eczemas and acne rosacea:

Benzoin	3 per cent.
Soap in powder	97 per cent.

Freckles.—

Mercury bichloride	0.50 gm.
Camphor	0.60 gm.
Alcohol	7 c.c.
Subacetate of lead	2.5 c.c.
Sulphate of zinc	2 50 gm.
Distilled water	250 c.c.
Yellow of an egg.	

Wet the face and let it dry on.—*Journ. de Méd. de Paris.*

Light in the sick-room should be insisted upon excepting in a few eye affections and other conditions requiring a darkened chamber.

Prophylactic in Tonsillitis.—For use by those persons predisposed to the development of tonsillitis:

℞. Olei menth. pip. ..... ℥ viij.
Acid. carbolic (crystal.) .... ʒ j.
Spt vini. rectificat. ..... ʒ ij.

M. Sig.: Ten drops to be added to a cup of warm water, and this solution used as a gargle night and morning.

—*Med. Rev.*

Chloride of Gold and Sodium has never failed to give relief in nervous cases, ranging from epilepsy to simple nervous manifestations without apparent cause.—Green.

Earache, without indications for operative interference, may be relieved with

℞. Menthol,
Gum camphor ....āā gr. xx.
Liq. albolene ..... ʒ j.

Drop into ear several times daily.—Dunn.

Angina Pectoris.—Inhalation of chloroform, or a few drops of nitrite of amyl; $\frac{1}{100}$ grain of nitro-glycerine, internally; placing the feet in hot water, mustard to the precordial region; dry cup between the shoulders; hypodermic injections of morphine and atropine, administration of stimulants and anodynes.

Apoplexy.—Elevate the head and shoulders; if pulse is moderately strong and the brain congested, bleed from the arm freely, sixteen ounces or more; elaterine (one-sixth grain), or croton-oil, two drops in drachm of sweet oil or glycerine; cold to the head by means of an ice-bag.

Heat Stroke.—Remove clothing, sprinkle with water, cold cloths to the head, hot cloths to the feet, antipyrin, bleeding in robust subjects. After temperature is reduced give alcohol and diffusible stimulants, hypodermically if necessary.—*Med. and Surg. Rep.*

Ipecacuanha is a powerful agent in producing uterine contraction during the first and second stages of labor.—Drapes.

Gonorrhœa.—

℞. Salol..... ʒ j. to ʒ ij.
Oleoresin cubebæ..... ..... ʒ ij.
Balsam. copaibæ..... ʒ ij.
Pepsin... .... gr. xij.
M. Ft. caps. no. xij. S.: One, six times daily.

—Hare.

Chlorohydrosulphate of quinine dissolves in its own weight of water and is rapidly absorbed. It is hence suitable for hypodermatic use and appears more active than the sulphate.—Grimaux.

Sodium Tetraboricum Neutrale has been attended with more marked success in chronic suppuration of the middle ear than any agent which Heflebower has ever used. It seems to be antiseptic and astringent and is used in sterilized saturated solution as an injection.—*Cincinnati Lancet-Clinic*, January 14, 1893.

Acute Anæmia, such as caused by post-partum hemorrhage, etc., is treated by copious rectal injections containing one and a half teaspoonfuls of common salt to the quart of water.

Neuralgia.—

Ammon. brom.,
Sodii salicyl.....āā ʒ j.
Tinct. hyoscyam..... ..... ʒ ij.
Aq.....ad ʒ iv.

Teaspoonful every half hour till relieved, or four doses are taken.—Hightower.

Pertussis.—

℞. Hyd. peroxide (10 vols.)..... ʒ vj.
Glycerine... ..... ʒ iv.
Water ....ad ʒ iij.

Dose: Half a fluid ounce, in a wineglassful of water, five or six times a day.—Richardson.

Glycerine, four parts, to bismuth, one part, is the best way to keep the latter in solution—Taurence.

Peritonitis.—The best treatment is by the administration of large doses of saline cathartics (sulphate of magnesium, ʒ ij., every two hours until the bowels have been opened eight or ten times).—Keen.

Camphor given with acetanilid overcomes the depressing effects.—Cshesmiutzeff.

Incontinentia Urinæ, when due to slight disorders of genito-urinary or nervous systems, may be relieved by rhus aromatica, beginning with five to ten drops and increasing to fifteen or twenty, four times daily.

Adherent Placenta.—Injection of cold water by the rectum acts by reflex stimulation.—Newton.

Typhoid Fever.—I have found beta-naphthol to work so well that unless the stomach is very irritable, which is a contra-indication to its use, I invariably give it, and my results guarantee the statement that it is an agent par excellence in the rational treatment of typhoid fever.—Shimonek.

Asthma.—At onset of attack, paint nasal fossæ as far in as possible with one part by weight of cocaine hydrochlorate to twenty of water, or spray nose and pharynx for four or five minutes. This may cut short the attack.—Dieulafoy.

Exophthalmic Goitre.—

℞. Powd. ipecac .... gm. .335
Powd. digitalis..... gm. .02
Ex. of opium..... gm. .0025

For one pill. Four or six to be given every twenty-four hours.

Bromoform exerts almost a specific action in whooping cough. One to five drops are given to children three or four times daily. It is best given in a mixture with alcohol and glycerine. The drug should be clear and colorless.—*Western Med. Rep.*

Naphthol as a Vermifuge.—Dr. Dubois gave fifteen centigrammes three times daily to a girl on whom he had tried all the usual remedies without result, and succeeded in causing a discharge of thirty-four ascarides lumbricoides. —*Lyon Medical.*

Tornwaldt's Disease, or chronic inflammation of a pathologically formed cavity, and frequently mistaken for post-nasal adenoids, is best treated, according to Smith-Hozier, with applications of chromic acid on a probe.

Resorcin is recommended for gastric ulcer, five grains three times a day. It is antiseptic, hemostatic, and analgesic, enabling the stomach to tolerate food.

Acute Rhinitis.—For relief of urgent distress cocaine and tincture belladonna in from three to five per cent. solution applied on cotton.—Pierce.

Sulpho-Carbolate of Zinc is recommended by Sangree in typhoid as capable of rendering the mucous membrane and intestinal contents less suitable for the development of micro-organisms. It is of little use to employ small doses, and five grains are given by the author every three or four hours until the temperature falls.—*The Times and Register.*

Puerperal Eclampsia.—Veratrum viride (Norwood's tincture) in sedative doses every half hour or hour until the desired effect is produced has been my favorite remedy for more than thirty years.—Stephens.

Dyspepsia.—The following treatment is useful in cases of obstinate indigestion:

℞. Tincture of cascarilla, cinnamon, gentian, colombo, rhubarb ..... .āā ʒ ij.
Tincture of nux vomica..... ... ʒ j.

—Jules Simon.

Cold Baths have been successfully employed by Rivière in two cases of tetanus after chloral and opium had failed.

Thymol is a useful addition to carron oil in treatment of burns, from $\frac{1}{20}$ to $\frac{1}{10}$ per cent.

Cimicifuga.—Ten to thirty drops of the fluid extract after meals cures seminal emissions.—Reed.

Ulcer of Stomach.—To combat the nausea and vomiting, a pill containing extract of belladonna, gr. $\frac{1}{8}$, and silver nitrate, gr. $\frac{1}{2}$, may be used with advantage; the latter is said to exercise a curative influence on the ulcerated surface, and by being converted into an insoluble chloride, diminishes or neutralizes the hydrochloric acid present in the stomach.—Wolff.

To Cut Short Whooping-cough, paint the periglotteal region every two hours with a ten per cent. solution of resorcin.—Moncorro.

Dysentery.—Hot enemata of tannin and boric acid.

Scotch Douche has given Schüller better results in chronic joint trouble of rheumatic origin than any other form of hydrotherapy.

Salicylate of Bismuth has been found useful in infantile diarrhœa, and lactic acid in many other forms, even that of phthisis.—*Lancet.*

Hydrogen Peroxide has been proved experimentally to be a valuable antidote in hydrocyanic poisoning.—Kobert.

Ichthyol Carbolic Varnish which can be readily removed is made by the following formula:

℞. Ichthyol	25.	parts.
Carbolic acid	2.5	"
Starch	50.	"
Water	22.5	"

The first two are dissolved in water at a gentle heat and the starch added.

Cholera.—Chloral, by hypodermic injection, has been extolled. The following is a suitable formula:

℞. Chloral hydrat	ʒ iij.
Morphin. sulph	gr. j.
Atropin. sulph	gr. ¼.
Aquæ chloroformi,	
Aquæ	āā ʒ ss.

M. Sig.: Twenty minims, repeated in ten minutes, and subsequently pro re nata.

—Bartholow.

Tertiary Affections of the Penis must not be confounded with initial sore nor with chancroid, or when in urethra with gonorrhœa. Iodide of potassium is the indication.—Sternthal.

Pental, administered as an anæsthetic in from two to eight gramme doses, causes loss of consciousness lasting from half a minute to fifteen minutes. In incomplete narcosis tactile sensibility sometimes appears unaffected, though sensibility to pain is totally abolished.—Fedoroff.

Nocturnal Emissions.—

℞. Ext. aloes	gr. iij.
Ext. belladonnæ	gr. ij.
Ext. hyoscyami	gr. iv.
Pulv. camphoræ	gr. iv.

M. Ft. pilulæ No. xii. Sig.: One pill every night.

Creosote is no longer an innovation or a fad, but a drug which has come to stay as an antitubercular remedy. It is particularly valuable in the earlier stages of tuberculosis. Its administration must be in moderate doses for a prolonged period. It is a safe and reliable prophylactic in the condition that is usually described as pretubercular anæmia.—Stark.

Veratrum Viride is considered a safe drug and a sure remedy in scarlet fever, and it is thought that some cases may be aborted by its timely use.—Chambers.

Appendicitis, if Seen Early.—Absolute rest, fomentations, salines every half hour until four or six fluid stools are produced.—Jonas.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

PARLIAMENTARY COMMITTEE ON DEATH CERTIFICATION—THE GENERAL MEDICAL COUNCIL—PRACTICE ABROAD—SMALL-POX—SCARLET FEVER—DEATHS OF MARCUS BECKT. SIMPSON, AND PROFESSOR PACCHIOTI—THE GENERAL MEDICAL COUNCIL—MEDICAL AID ASSOCIATIONS—COVERING—VISITORS OF EXAMINATIONS—THE CURRICULUM—THE NEXT PHARMACOPŒIA—SUSPENSION OF AMERICAN DENTAL DIPLOMAS—THE CLINICAL SOCIETY'S CLOSING MEETING—DEATH OF THE SECRETARY, DR. HADDEN—ROYAL CHARTER FOR NURSES—SIR WILLIAM JENNER'S WRITINGS.

London, May 27, 1893

Subjects of interest to the profession have not been wanting in Parliament of late. Among them is that of death certification, which is now being examined by a select committee of the House of Commons. Already this committee has had before it a number of witnesses, among whom were doctors, coroners, registrars, health officers, and, with the usual impartiality of such committees, a representative of unqualified practitioners, and especially of herbalists. The last-named seem fairly satisfied with the present system, though they would prefer it to be rather more lax. They evidently fear that any alteration will be in the opposite direction. Ordinarily, medical men are required to certify the deaths of their patients on a form provided by the Registrar-General, giving the date when last seen and the day and cause of death. This certificate passes to the Registrar of the district, who gives his certificate of registration to the person authorized to conduct the funeral. It is from these certificates, which are not paid for, that the Registrar-General's valuable statistics are framed. The profession, knowing the importance of such statistics, has always been willing to give its assistance, and may surely expect in return that certificates should be accepted from qualified practitioners only. It seems, however, that great irregularities in this respect have prevailed, and when no qualified practitioner has seen the case or been willing to certify, that registration has nevertheless been effected. Such cases ought to be inquired into by the coroners, but inquests are very unpopular and some of these functionaries, whose salaries do not depend on the number of their inquiries, have not been too anxious to increase them. In other ways, too, abuses have crept in—it is not usual to register stillbirths, a midwife's certificate is merely given to the undertaker. Moreover, great laxity has prevailed, with here and there a medical man who has signed blank forms and allowed his assistant to use them. Some, too, have done this for unqualified men and so "covered" them; but the Medical Council has decided that "covering" is "infamous in a professional respect," to use the words of the Act of Parliament, and will entail exclusion from the Register, so that this offence will probably cease. It seems to be generally admitted that registration of deaths should be made compulsory, that qualified men should be paid for certifying, and that all cases not certified by them should be subject to a coroner's inquest.

The session of the Medical Council opened on Tuesday, with the usual address of the President, giving a summary of the business to be transacted. A very full agenda was before the members, including important reports of the Education Committee, and the Examination Committee. The former is under discussion as I write; the former contained reports of the visitors of examinations, and was discussed on Thursday in reference to some defects pointed out in one of the examinations of the Dublin University, which the representative of that body assured the Council would at once be removed. Sir Philip Smyly took his seat as the successor of the late Dr. Macnamara, whose death I have previously mentioned, and to whom

the President paid a feeling tribute. He mentioned the action in which the College of Physicians had succeeded against the Council, and that the costs thereby incurred will be little short of one thousand pounds. Does it not seem deplorable that a thousand pounds sterling should be squandered in a legal contest which could not benefit the practitioners who have contributed the funds? And all the while the country swarms with quacks which the Council does not suppress. No one cared a farthing about the lawsuit undertaken except the College, which naturally fought for its privileges. No one doubted that its licentiates were fully qualified, and yet the Council refused to recognize the license as a double qualification, while it takes no thought or does next to nothing as to men with no qualification at all. On Wednesday and part of Thursday cases of discipline were undertaken. Three names were ordered to be removed from the Register. One name was restored. This leads me to remark that in all directions there seems to be a growing feeling that restoration is too easily obtained. Of course there are differences in the offences, and the greatest care ought to be exercised to prevent expulsion becoming too light a punishment. An interval might, perhaps, in each case be fixed before the expiration of which no application for restoration could be entertained.

Papers were laid before the Council on the subject of reciprocity in practice in various countries. France and Switzerland are the most exclusive, especially the latter. Great complaints have been made that English physicians cannot attend their patients in various health-resorts. The remedy is to send our patients to other equally beneficial localities where more liberal views prevail. When Switzerland has diverted the stream from which much of her prosperity comes she will have time enough to repent of her folly.

Small-pox continues to spread. There were 537 cases in the Metropolitan Asylums Board's hospitals on the 20th instant, and fresh outbreaks are reported from various towns. Scarlet fever also continues to prevail both in London and the country.

Surgery has lost a distinguished exponent, and University College a model and beloved teacher, in Mr. Marcus Beck, who died on Sunday last and was buried on Thursday in a burying-ground of the Society of Friends. He was the subject of diabetes, but never suffered that to interfere with his devotion to his work. An attack of influenza hastened the end, and he died of diabetic coma at the early age of forty-nine. His name must be well known to your readers as the editor of recent editions of Erichsen's "Surgery."

A man of somewhat similar sturdy character, but whose lot was cast in a country town, was Thomas Simpson, of Coggeshall, where he spent some forty years of unpretending, earnest labor. I knew him well, and like his other friends, held him in high esteem. He loved literature, science, and his profession; was intellectual, benevolent, pious, and well cultivated. His death will leave a great blank in the place that had known his worth so long.

Another friend of mine, although an Italian, was well known to many in London, Professor Pacchiotti, of Turin. The last time I saw him was at my own clinic, where he came with all his usual professional ardor. Italy has lost in him a noble representative. She has indeed been severely visited of late, for within a few days she has lost him and Cantani, and also her world-renowned adopted son, James Moleschott.

LONDON, June 3, 1893.

MEDICAL aid associations, as they are called, have been formed in various towns, to apply the co-operative principle to medical attendance. This is an advance on the friendly societies or clubs which have long been recognized as useful institutions. Much opposition has been roused by these newly-formed associations. It has been urged that they are in reality gigantic co-operative societies dealing in unqualified medical practice protected by the "covering" of a qualified man. Various other charges have been made, such as that of "sweating" the doctors, making them utterly dependent, and touting for practice in a disgraceful manner. No one can doubt that a great abuse has sprung up, but who is to blame? So rapidly has the abuse spread that the General Medical Council has been compelled by the outcry raised to look into the matter. The Council accordingly appointed a committee to investigate and report, and the present session has been eagerly looked forward to in the expectation of an important resolution being adopted. But the eager spirits who had not gauged the *vis inertiæ* of the Council have been doomed to disappointment. The report of the committee was indeed brought up on May 26th, and so feeble a document it proved to be that it might almost have been mistaken for the offspring of the Council itself. But not quite, and so the Council proceeded to its usual work—talk and empty resolutions of platitudes. A day was consumed over this, which, at the rate of about a guinea per minute (the amount the Council meetings have been calculated to cost the profession), will be enough perhaps to deter any further appeal to its authority by the enthusiasts who expect the dignity of the profession to be maintained by its action. That dignity is upheld by the gentlemen who collect their fees for attending these meetings. The committee had proposed to stigmatize certain actions as "reprehensible," but objection was taken to this on the ground that the Act of Parliament used the term "infamous in a professional respect," and that therefore the Council was not empowered to use any other term. This objection was not taken with a view to the use of the term infamous, but to get rid of the condemnatory resolution, as it was well understood the Council would not display the courage of its convictions. No doubt it is a severe punishment to remove a name from the Register, but when lawyers are "struck off the roll" we hear no feeble sentimentalism of that kind, and so the sister profession manages to keep up its reputation at a high social level. The Council did agree to declare that the offence of "covering" was committed by medical officers of these associations keeping unqualified assistants, and further, that the "report of the committee with reference to certain evils which it describes could not fail to be instructive to the executive committees and medical officers concerned," and copies are to be forwarded to these persons. Those who know the history of the Council will take this as the usual *laissez faire* policy. Possibly one or two of the bodies may take it as a warning to mend their ways. If not, the Council may look for further disturbance of its slumbers.

The report of the visitors of examinations was the next most important subject before the Council, and the attention of several qualifying bodies was called to certain defects in their methods of examination, which will no doubt be speedily removed. The curriculum of five years was considered to be evaded by those bodies which admit study in science previous to registration to count. This point may cause the Council a difficulty before which it will relapse into its well-loved inaction; for the regulations of the Scottish Universities have been settled by commissioners under Act of Parliament.

The Pharmacopœia Committee was authorized to take steps to make the next edition of the work, which may appear two or three years hence, more acceptable to India and the colonies by including their more important natural remedies. Will this prove a step toward an international codex?

The Council determined to suspend for a time the registration of American diplomas in dentistry, as it appeared they were granted after a less curriculum than British dental diplomas. The names of those already on the foreign dentists' list will of course be retained.

The annual meeting closing the session of the Clinical Society was held on the 26th ult, under sad circumstances. The chair on the right hand of the President, filled at the last meeting as usual by the senior secretary, Dr. W. B. Hadden, was vacant. Within the few days that had in-

tervened since that last meeting, Dr. Hadden, then in full health and enjoying his work, was struck down by pneumonia of septic origin. To some present the first intimation of his untimely decease came at the meeting, for he had only died that day, and he was to have read a paper at this very meeting. The President referred in touching terms to this sudden event, and bore testimony to the excellence of Dr. Hadden's work as a scientific investigator, to the energy he evinced in all he undertook, and to the courtesy and zeal with which for the past two years he had devoted himself to the duties of secretary of the Society. The condolences of the Society were voted to the parents of Dr. Hadden, on their great loss. He was senior assistant physician to St. Thomas's Hospital, and also on the staff of the Children's Hospital, and only thirty-seven years of age. He would have been re elected secretary at this meeting with the other officers whose names were on the list, which was duly passed.

The clinical business proper was also duly gone through. This consisted of a case of ulcerative (or, according to another's view, membranous) colitis, treated successfully by inguinal colotomy, and subsequent irrigation with boric solution of the surface between the anus and the artificial opening; two cases of chronic albuminuria of long standing, twenty-five and forty-three years, respectively; fatal asphyxia following self-administration of nitrous oxide.

The Royal British Nurses Association has obtained a charter of incorporation.

Sir William Jenner, in his retirement, has arranged some of his scattered lectures and communications for publication in book form. His valuable studies on fevers and diphtheria will appear in the first volume, now in the press.

I hope he will do justice to the late Dr. A. P. Stewart's work in discriminating typhus and typhoid.

THE USE OF NITRATE OF SILVER IN SOLUTION IN GASTRIC ULCER.

To the Editor of the Medical Record.

Sir: The admirable article by Dr. I. Boas, of Berlin, in the Record of June 17th, calls the attention of the profession to the use of nitrate of silver in gastric ulcer, and especially to its use in solution. I can add my testimony to its efficacy, used in this way, but with a modification which permits the administration of larger doses when advisable, without any unpleasant effects.

As long ago as 1887, I began using the nitrate of silver in solution in chronic gastric catarrh, and in cases of obscure stomach disease, where great pain on pressure over a small area and distress soon after eating led me to suspect the presence of an ulcer; but where some of the more characteristic symptoms were wanting to establish a certain diagnosis, my plan of giving the silver in solution has been as follows: At first the patient is directed to drink eight ounces of warm water, and after half an hour, another glass of water in which one grain or more of the nitrate of silver has been dissolved is taken, this to be followed in fifteen minutes by a cup of water containing a pinch of chloride of sodium; this last procedure is, of course, not necessary when small doses are given; but it enables us to administer large doses, well diluted of course, when desirable, and as in these cases it is the local effect of the remedy we desire, it is just as well to neutralize the drug, in part at least, before its absorption. The history of the first case in which I used the remedy in this way is as follows:

Mrs. B——, a widow about fifty years of age, consulted me in October, 1887, and gave a history of long suffering from inability to digest food. She often vomited and suffered great pain in the epigastrium, the pain was circumscribed, was transmitted through to the back, and was much intensified upon pressure; there was no history of vomiting of blood, nor had blood been observed in the stools. There was constipation and great emaciation, and all kinds of food were imperfectly digested. I directed the patient to take in eight ounces of warm water, one grain of nitrate of silver, after previously taking the warm water as above noted, and this latter to be followed in fifteen minutes with a cup of water containing a few grains of salt. This procedure was repeated once a day for a few days only, and after that every second or third day for a while. The result was excellent and the patient very much relieved, she could digest carefully selected food, and gained a considerable degree of health. A year later there was a slight relapse, but this yielded to treatment, and the patient remained up to about a year ago, when I last saw her, much improved. I have since that time made occasional use of the nitrate of silver in solution, in cases where a rather chronic ulcer of the stomach has been suspected, when great emaciation and a cachectic appearance had led me to fear malignant disease. In such cases I believe it efficient. In more recent cases, where the symptoms have not been so severe, I have not found it to be generally superior to the use of small doses of the silver salt in pill form. These, however, I generally give on an empty stomach, and let the patient drink a little water, and rest for a time after taking them, no food to be taken for an hour. The question arises how the silver acts, and whether it is not speedily neutralized by the hydrochloric acid it meets, or may meet, in the stomach. Without going fully into the subject it is fair, I think, to assume that when taken fasting, and not within an hour of meal-times, it will act efficiently without chemical change. The method of giving from one-half grain to two, or even five grains in solution in from two to twelve ounces of water, seems to promise the best results, when its local action is desired, and its neutralization by the administration of the chloride of sodium permits the administration of large doses when necessary.

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Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending June 24, 1893.

	Cases.	Deaths.
Typhus fever	5	3
Typhoid fever	20	6
Scarlet fever	97	16
Cerebro-spinal meningitis	8	10
Measles	224	14
Diphtheria	115	34
Small-pox	8	3
Cholera	0	0
Varciella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

The Prognosis of Pott's Disease must be considered under four headings: as to life, as to the complications, abscess and paraplegia, and as to the deformity. As to life: Although Pott's disease is a most prolonged and serious disease, the prognosis as to life is remarkably good; only about eight per cent. die of those receiving proper nursing and treatment. In these few the cause of death is invariably due to tubercular meningitis or general tuberculosis in which the meningeal symptoms play a most prominent part. The abscess of Pott's disease, if uninterfered with, rarely causes trouble. If the area of bone disease be efficiently immobilized, the abscess, in about half the cases, disappears without coming to an opening. In the remaining cases it bursts, discharges for a longer or shorter time, and closes. Treated by aspiration and the injection of the iodoform and glycerine mixture, the cure is hastened in a certain number of cases; in other instances nothing seems to be gained by the procedure, and in a few cases a true sup-

purative process is grafted on to the tubercular inflammation. Treatment by incision, scraping, and drainage in pure tubercular abscesses, untainted with septic infection, rarely aids the cure in the slightest, and greatly adds to the risk from general tubercular infection and from septicæmia. The paraplegia, which occurs in a considerable number of cases of upper dorsal Pott's disease, though rarely in cervical and lumbar disease, need cause little anxiety. Rarely is the paralysis due to pressure of bone, or to tuberculosis of the cord itself. The acuteness of the angle of deformity bears no relation to the paralysis, since we not infrequently see the paralysis pass off while the deformity continues to increase. Cases of paraplegia from bony encroachment invariably terminate fatally, unless the pressure be relieved by operative interference. Cases in which the tubercular inflammation has invaded the cord itself always die. In the vast majority of cases the paralysis is due to a peripachymeningitis, and the prognosis is good, provided the patient can be kept recumbent and the area of disease immobilized. Relapse may occur, but ultimately the paralysis is fully recovered from. The prognosis as to deformity and function depends upon the location of the disease and the amount of consolidation present when treatment is commenced. If consolidation is not already present, deformity can be fully corrected in the cervical spine, and normal function regained. In the dorso-lumbar region—tenth dorsal to third lumbar inclusive—the deformity can be somewhat reduced, and at times in young children wholly effaced. Some rigidity usually remains, but in the very young, if the deformity is fully corrected, full motion may be regained. Disease in the upper dorsal region invariably results in some deformity before a positive diagnosis is made, and this, as a rule, increases somewhat during treatment. Disease at the fourth and fifth lumbar vertebræ must be treated with complete recumbency for a long period if deformity would be avoided: when, however, deformity has occurred, it cannot, as a rule, be remedied. The prognosis as to deformity, wherever the disease is located, depends very much upon the time of making the diagnosis, and the ability to carry out an ideal line of treatment. If the disease can be diagnosticated before deformity has occurred, and if proper treatment can be persistently carried out, deformity may be prevented in all cases and the duration of the disease greatly lessened.—John Ridlon, M.D., in the Chicago *Medical Recorder*.

Berlin boasts of its four lady doctors already—whether the profession will be further increased through feminine assailants remains to be seen; but if Herr Baumbach's motion is carried, which he brought forward lately with much eloquence in the Reichstag, asking that women be permitted to present themselves for the Staat's Examen—with a view to practising medicine—if this is finally carried we can only imagine that the existing female practitioners will have their numbers largely augmented in Berlin as in other German towns.—*The Hospital.*

Grafting a Dog's Skull.—From Paris comes an account of an operation performed by M. Ricard, on a woman of forty five, who had suffered from a tumor in the frontal bone. A portion of the bone had to be removed in order to get rid of the tumor, and as the brain was laid bare in consequence, cerebral hernia ensued. M. Ricard had the idea of removing a piece of living bone from a dog's skull, and cutting it exactly to fit into the void in the woman's forehead. He took antiseptic precautions—the grafted piece was knit with the frontal bone, into which it was inserted, and the patient made a good recovery. Dr. Polaillon has presented a report on the case to the Académie de Médecine, and speaks of the operation as the first successful one of the kind ever performed. The operation is in the same line with others done in this city.

Salol combined with phenacetine is especially useful in influenza and rheumatism.—Shoemaker.

BOOKS RECEIVED.

Brain Surgery. By M. Allen Sarr, M.D., Ph.D., Professor of Diseases of the Mind and Nervous System, College of Physicians and Surgeons, Medical Department of Columbia College, New York; President of the New York Neurological Society: Consulting Neurologist to the Presbyterian, Orthopædic, and Babies' Hospitals. With fifty-nine Illustrations. Octavo, 308 pages, extra muslin, price, $3. New York: William Wood & Company.

Human Monstrosities. By B. C. Hirst, M.D., and G. A. Piersol, M.D. Part IV. Pages 151–220. Plates xxv.–xxxix. Lea Brothers & Co., Philadelphia, Pa.

Clinical Lectures on Abdominal Hernia. By W. H. Bennett. 8vo, 225 pages. Longmans, Green & Co., New York. Price, $2.50.

Transactions of the American Pediatric Society. Fourth Session, 1892. Vol. IV. 8vo. 277 pages.

Manual of Chemistry. By W. Simon, M.D. Fourth Edition. 8vo, 493 pages, illustrated. Lea Brothers & Co., Philadelphia, Pa.

Diseases of the Eye. By G. A. Berry. Second Edition. 8vo, 745 pages, illustrated. Lea Brothers & Co., Philadelphia, Pa. Price, $8.00.

Fifteenth Annual Report of the State Board of Health of the State of Connecticut. 8vo, 194 pages.

System of Diseases of the Ear, Nose, and Throat. Edited by Dr. H. C. Burnett. Vol. I. 8vo, 789 pages, illustrated. J. B. Lippincott Co., Philadelphia, Pa.

Naphey's Modern Therapeutics, Medical and Surgical. Ninth Edition. Vol. II. By A. J. Smith, M.D., and J. A. Davis, M.D. 8vo, 1,112 pages. P. Blakiston, Son & Co., Philadelphia, Pa. Price, $6.00.

Atlas of Electric Cystoscopy. By Dr. Emil Burckhardt and E. H. Fenwick. 8vo, 70 pages, 34 plates. J. & A. Churchill, London.

Fermentation, Infection, and Immunity. By J. W. McLaughlin, M.D. 8vo, 240 pages.

Diseases of the Rectum and Anus; their Pathology, Diagnosis, and Treatment. By Charles B. Kelsey, A.M., M.D., New York, Professor of Diseases of the Rectum at the New York Post-Graduate Medical School and Hospital; late Professor of Diseases of the Rectum at the University of Vermont, etc. Fourth Edition, revised and enlarged. With two chromo-lithographs and one hundred and sixty-two illustrations. 8vo, 496 pages, extra muslin. New York: William Wood & Co. Price, $4.00.

Lessons in Physical Diagnosis. By Alfred L. Loomis, M.D., LL.D., Professor of the Practice of Medicine and Pathology in the University of the City of New York. Tenth Edition, revised and enlarged. Illustrations, some in color. 8vo. 240 pages, extra muslin. New York: William Wood & Co. Price, $3.00.

The Recrudescence of Leprosy and its Causation. By William Tebb. 8vo, 412 pages. Swan, Sonnenschein & Co., London.

A Practical Treatise on Materia Medica and Therapeutics, with Especial Reference to the Clinical Application of Drugs. By John V. Shoemaker, A.M., M.D. Second Edition, revised. In two royal octavo volumes. Vol. I., 353 pages, Vol. II., 680 pages. Vol. I., in cloth, $2.50 net; sheep, $3.25 net. Vol. II., in cloth, $3.50, net; sheep, $4.50, net. The F. A. Davis Co., Philadelphia, Pa.

The Creation of God. By Dr. Jacob Hartmann. 8vo, 432 pages. The Truth-Seeker Co., New York.

A Handbook of Local Therapeutics. By Drs. Allen, Hart, Harlan, and van Harlingen. 8vo, 500 pages. P. Blakiston, Son & Co., Philadelphia, Pa. Price, $4.00.

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Original Articles.

THERAPEUTICAL SUPERSTITION.[1]

BY GEORGE T. WELCH, M.D.,

PASSAIC, N. J.

RECENT researches into obsolete medical works have convinced me that an old scientific book is not more valuable in any other way than it is in what it represents as a landmark of the attainment of thought and speculation up to the very hour that it issued from the press. Truth changes its aspect; what we have thought was an eternal principle was some issue caught motionless at a turn of the tide. When we have believed penetration could go no farther, some fresher genius has taken the trail, and disappeared, after shining for a moment upon a farther upland.

The Romans erected arches to victory and columns in remote provinces to mark their ever-widening boundaries. Beyond many of these flowed the human tide, rising in continued swells of grandeur to this hour; but some of them are to be found by chance travellers in deserts, and some have mouldered quite away in vast solitudes. And just as these ancient and daring conquerors marked their latest triumphs with monumental shafts and sculpture, on which were graven battles and the names of heroes, so in our books the great teachers and historians of our art have celebrated the achievements of the profession and recorded the long roll of illustrious physicians. Some of these books, even so far back as the famous one of Hippocrates, have been guides to prosperity, while others have been shunned as pointing the way to haunts of superstition and morasses of the human mind.

We smile superiorly when we look at some of them and perceive how very little had been wrested from ignorance and credulity while the book itself is so pretentious. And yet every recruit, every appliance of skill, wisdom of the fathers, resource of the sons, drift of theories, fragments of tradition, charms even, and necromancy, all that was believed and all that was hoped, were brought together under the standard that was borne thus far into the wilderness—the Scythia that besets us with difficulties and every morning presents a farther horizon. And the latest book has brought all up to date, and with an unremitting courage the author has placed another shaft to victory, which we begin already to leave a day's journey behind us.

Nothing is established, nothing is sure! is a hopeless cry sometimes heard. But we, like the Roman, leave a regent in every conquered province, where, if the court shifts and the elements revolve, we still govern upon principles that defend us. Nor have we any reason to feel the superiority of any other profession above our own, when we reflect that all alike are humbled before vast problems, and either feel their way with caution, or are rebuked by the judgment of posterity. The austere creeds of the theologian are constantly crumbling. That which must be defended is no longer impregnable. Divinity is breaking into a thousand sects. The ameliorating, humanizing principle is abroad. Some of the weaker minds, not daring to try the issue, are for leading their flocks back into the old paths. They spurn their natural leaders and condemn them as outlaws, while with vestments and rituals they seek to lull the human mind. They had as well seek to bind the floods with cassock bands, and seal the caves of the winds with threats and excommunication.

Should we turn to statesmanship, we find armed neutrality. The invention is sterile that dares not dare. And yet empires are but maps of an hour. Slight incursions change boundaries. In law we approach the exasperation of politics. It is always changing and never satisfactory. It is a net that draws hard upon the petty criminal, but bursts when a corporation is entangled. Descartes found a whole library in the human body, but your lawyer, confronted with a perplexing cause, goes to a myriad of books to find his clues.

We fret and repine because every physician that prescribes for an ailment is not a trained scholar in his profession, and we fulminate about it so much that, mistaking our conscientious care for an admission, the other professions smirk and grimace, but the egotist with the longest purse goes to the senate, and the ruffian with the greatest saloon interest becomes the lawmaker for a State. In the cabinet there is vacillation, in the senate great measures stagnate, in the legislature partisanship predominates. Smug hirelings climb the pulpit—"the hungry sheep look up and are not fed."

In the natural sciences the savants are still classifying. The astronomer is not sure that his burned-out suns may not be stars about to germinate.

In the face of all this dilettanteism, what reason have we to stand at bay! We have gone far and have established much. No one will deny the potency of Jenner's vaccine, or Lister's antiseptic methods, and all that goes under the comprehensive title of hygiene. The study of preventable causes of disease is raising the standard of medicine, and just as physicians recognize that their mission is a wider one than the mere administering of drugs to cure the ill will they exalt their profession, and become an established power in government. For if we exclude from the human family all the preventable diseases—including those produced by worry and mental strain, by physical strain, the excesses of the passions, by alcohol, tobacco, narcotics, unwholesome foods, impure air, by occupation, sloth and idleness, late hours and broken sleep, errors of dress, imitation and moral contagion, automatic diseases and hypochondriasis—all of which are evils that may be avoided—how small a percentage would be left for the doubtful compounds of the pharmacopœia! "If intermarriage of diseases were considered in the same light as intermarriage of poverty, hereditary transmission of disease, the basis of so much misery in the world, would be at an end in three or four generations" (Richardson).

There will come a day early in the next century when a Secretary of Health will be as necessary a member of the Cabinet as he who holds the portfolio of Law or Agriculture. That this has not been so long ago, in all countries, is not so much the fault of a progressive profession as it is of a vicious education in therapeutics. For however man may deteriorate his health, however long he may have put at defiance every law of nature, he demands an instant cure. He may scoff at miracles elsewhere in the natural world, but he confidently expects one at the hands of his physician at any hour, let the disease be what it may. And the physicians are few who boldly stem this senseless tide. The majority yield to it: go with the current, pander the superstition. Vainly they

[1] President's Address, delivered at the One Hundred and Twenty-seventh Annual Meeting of the New Jersey Medical Society, June 27, 1893, held at Asbury Park, N. J.

offer this or that panacea, and painfully reminded by past experience that the discouraged patient may suddenly leave and go to the coast of some other Bohemia, they make a dizzy change from drug to drug, but the demon of disease looks out and leers at them. He will not be propitiated, or poisoned in his keep.

To have perfection in the child, says Holmes, we must begin with his grandfather, and in morals no man expects that a clergyman hastily called in, will, by some hocus pocus, make saint of one who, long a sinner, has at length committed some atrocious crime. The mills of God grind slowly — and human laws are inexorable too. The transgressor finds to his cost that he must endure many fluctuations of hope, many fines and penalties, for the delays of the law are proverbial. There are, it is true, many ephemeral laws, such as have scourged us at Trenton, since booted and spurred the jockeys have ridden the State till the galled jade winces; but the Supreme Court has remedied these right speedily; and so there are ephemeral diseases that Nature will right, and which must succumb of themselves.

And without cavil it is in the self-limited diseases that the incessant therapeutist has won his most signal triumphs. Like the fox in the fable, he has a thousand tricks by which he can baffle the acute assaults of la grippe, pleuritis, bronchitis, asthma, pertussis, endocarditis, dysentery, chorea, rubeola, dengue, and acute rheumatism—for these are diseases whose tendency is to recovery. But he is less brilliant when pitted against croupous pneumonia, laryngitis, croup, œdema of the glottis, angina pectoris, acute gastritis, cholera, peritonitis, hepatitis, apoplexy, meningitis, tetanus, typhus fever, yellow fever, small-pox, and diphtheria, for these are dangerous diseases.

He is restless and feels the prescience of defeat, though still dosing the adversary largely, when it comes to a conflict with the chronic diseases, such as general paralysis, paralysis agitans, phthisis, epilepsy, progressive locomotor ataxia, and Bright's disease. And he is obliged to sit down to a regular siege before all the diseases which, though acute at first, have become chronic in spite of all his drugs. For disasters like these he has numberless excuses, as that the patient was already debilitated, he contracted a cold, there were complications, an unmanageable diathesis was awakened! And then come the incurable diseases, such as gastric ulcer, carcinoma, cirrhosis of the liver, acute atrophy of the liver, and chronic diffuse nephritis. In the presence of these, the most inveterate dispenser of drugs, seeing the death-warrant, patent to all eyes but his who must suffer and endure, must stand humbled amid his pots and vials. He must, else, pour his libations in vain.

And is it not singular that drugs should be esteemed so powerful in the acute, self-limited diseases, and yet in the chronic types, where the opportunities for their potency is so prolonged, they should fail so signally!

As knowledge accumulates, this or that drug of the fathers, which was wont to be so irresistible in fever, in imposthumes, or what not, is laid upon the shelf. We now know and can demonstrate that it was utterly useless; and yet the patient often got well! Every physician who has been spared to a great age can look back upon pharmacies ever changing. On the Ariel-wings of memory he can glance into a thousand sick-rooms, and sniff the odors of drugs no longer known. They had their day and the fashion changed.

Men couldn't be soundly cured without calomel once, and veratrum viride was a later triumph. Cod liver oil was once the Utopian remedy for phthisis. And it is astonishing how an enthusiastic therapeutist can always find the improvement his horoscope has forecast. But in fact he is only the antipode of the specialist, who is never known to examine a subject who has not something wrong in his line of business. Dr. Wood, in the fourth edition of his "Practice of Medicine," 1855, gives what may be taken as the average view of the physicians of the day, in regard to the benefits of cod-liver oil in phthisis, for the old professor was never rash; but we shall find that his opinion was tinted by the prevailing sentiment. "It does not act as a specific," says he, "and is wholly incapable of producing, by any direct influence of its own, the removal of the deposited tuberculous matter. But it invigorates digestion, improves the character of the blood, and by a peculiar power modifies the nutritive process, so as to obviate in a greater or less degree the tendency to the deposition of tuberculous matter."

Now, I question whether it is the experience of any scrutinizing physician to-day that cod-liver oil invigorates digestion; if it did, it would be the remedy par excellence, for the natural history of the disease in question shows that the fatal result is at length brought about by the gradual undermining and impairment of the appetite and digestion, which, once destroyed, the whole fabric collapses. And of all animal substances given to a man, we shall find the ingestion of fats furnishes the most serious problem for the functional processes of the stomach and intestines. Now, long before J. Hughes Bennett voiced the popular impression that the origin of phthisis is due to defective fat digestion it was the unwritten law that strumous indigestion and the indigestion of fats were synonymous terms. And not even a knight-errant in medicine would now deny the connection of the indigestion of fats with the strumous diathesis. The healthy stomach that has not been appalled by sweets and sours, and fats and leans, hot fluids and ices, dry wines and sparkling, and all the menu of a modern dinner of state, may also digest cod-liver oil mixed with ordinary food; but, if more than a moderate amount is added, the digestion becomes deranged with all the hideous symptoms dyspeptics are so fond of confiding. What then of the stomach already far gone? Would you load a staggering porter with a few pounds more, every time he faltered past you, on the theory that it would improve his strength?

When I was a student in the University and hospitals of Philadelphia, solutions and syrups of bromide of potassium were the popular tipple for all sorts of diseases, and quinine became the universal panacea for the laity just as it was losing ground with the profession; but the coal-tar derivatives are pushing all others to the wall. The chemists would seem to have gone mad in their laboratories, and to have applied the match to a new system of fireworks, so bewildering are their nimble coruscations of saccharine, pyrolin, hydroxylamine, methacetin, thallin, and exalgin. But the sparks die out as suddenly as they astonished, and many of them are already forgotten.

When it comes to this, that most of the self-limited diseases will get well without drugs; that some of the acute diseases with unfavorable complications got well in the previous generation, and in the centuries gone, under the prescription of drugs now known either to have been inert, or misapplied; and when we recognize the fact that within five years the medical journals teemed with the encomiums of new drugs which are already superseded by others which, in their turn, are getting a little *passé*, the confused physician may well exclaim with the dazed political vivant, "Where am I at!" He might feel his faith seriously shaken when he recalled how sadly he had been duped by the old pharmacologists, and the organic chemists of the hour.

When we regard the fact that the earth everywhere, unless depopulated by merciless greed, is teeming with animal life in the highest state of perfection, which has been evolved from parent to parent through unmeasured æons, and that in his savage state man himself, until corrupted by his civilized congener, has been found to be of fascinating feature and vigor, we must admit that drugs have not been necessary to perpetuate and strengthen the races. And when we reflect that, though the complex forces of civilization have induced a variety of diseases, many of them are preventable, and many of them self-limited, and therefore to be got rid of without drugs, and that the chronic forms of disease resist drugs, and that upon the whole the bills of mortality have not been lessened by them, we must conclude that our profession has

given altogether too much prominence to the apothecary's art, and raised expectations in the minds of the ill which cannot be realized. Further, it has set upon them hordes of charlatans, which, like evil birds, fatten upon human miseries.

It is time that we should reform ourselves and convince the public that there are higher potencies than the therapeutical superstitions that we have dealt out to them. We detest and execrate the priesthood for driving a shrewd trade with the bones, and relics, and other useless lumber of the saints, but we have unconsciously set up a barter of a like kind, and need to have our temple scourged of the money changers too.

I am aware that it will be urged that the average physician of to-day is much more wary in the use of drugs, and that upon the whole smaller doses prevail, and greater discrimination is exercised. I have heard, too, that the world has grown better, wars less numerous, man more concerned in raising his neighbor than in raising himself upon his neighbor. But I note that the sentinels of old empires grimly regard each other across the borders, that Justice in the South is not only blindfolded, but has her hands tied willingly behind her back, that the saloon domineers our politics, that the shadow of the prison falls across the threshold of the temple. And I know that in 1889, there were imported into this country $13,186,290 worth of drugs used in medicine, and that the succeeding years have not shown a less amount. I know, too, that there has been no inverse ratio existing between pharmacists and physicians.

In an essay on this topic in 1889, I showed from the "Statistics of Commerce and Navigation of the United States, for the Year ending June 30th," the gross amount, in pounds, of the chief drugs used in practice, which were imported to that date. I have just received from the Secretary of the Treasury the volume containing the statistics of the importations for the year ending June 30, 1892, and I find the following startling items:

Quinia sulph.....	2,686,677 ozs.	Opium (nine per cent. morphia)..	587,121 lbs.
Cantharides.....	10,446 lbs.	Rhubarb.....	118,874 "
Balsam copaiba....	206,011 "	Salicine.....	5,152 "
Aloes.....	255,394 "	Morphia, and all salts thereof....	42,301 ozs.
Assafœtida.....	125,557 "	Calomel and other mercurial medicinal preparations	12,630 lbs.
Ipecac.....	38,329 "	Alkaloids and alkalies to the am't of	$827,230
Jalap.....	112,601 "		
Manna.....	49,335 "		
Ergot.....	125,148 "		
Cubebs.....	115,974 "		
Nux vomica.....	1,392,437 "		

Certainly, no one can complain that there will not be enough to go round. Every mail is turgid with the pleas of manufacturing druggists. Our daily papers and religious weeklies are insidiously padded with advertisements of cure-alls. Postal cards, like so many tormenting gadflies, are pestering the sixty odd thousand physicians of America with the information that this or that compound is the only safe remedy for lung, kidney, or brain diseases. And these drugs do not pass into innoxious desuetude—they are all used somewhere.

Whoever has had the curiosity to read the minor medical journals, that he might know what is going on in the under world, must have been struck with the therapeutic greed of the writers—practical fellows who go scrambling crab wise over pathology to seize proprietary mixtures which are labelled to cure all the ills under the evil planets. The quacks grown wary, having been beaten off the field by the tremendous reinforcements in the medical ranks, return to vend their wares to the physicians themselves.

I have searched a large number of the pamphlets and medical journals of all classes, during the past three months, so that I might note the therapeutical extremes in this quarter of the latest years of the closing century. Brown-Séquard and his disciples are patiently engaged in the injections of organic liquids He is not rejuvenating octogenarians, with spermatin, so frequently and successfully as at the first blush, in 1889, but he records here and there, in a dreary waste of experiments, that extract of the thyroid gland injected into somebody with myxœdema, has metamorphosed the patient. Constantin Paul and Professor Babes are transfusing extract of the gray matter for neurasthenia. Injections of the extract of pancreas are being tried for diabetes. In diseases of the heart, injections have been made with the extract of cardiac muscle. Dieulafoy has tried injections of extract of kidney on a man affected with uræmia. Dr. Paul Gibier kindly announces through a contributor in his own journal that he has tried extract of cat muscle in cases of progressive muscular atrophy, after failure with other methods, and gracefully adds that, "he will probably report later on this subject."

Dr. William H. Hammond, with fine insistence, appropriates all, except the hint from Brown-Séquard, of this fantastic pharmacology. He has made alkaloids of the different organs and portions of the ox, and proposes to do away with all other drugs, and cure and renew like with like, giving an eye for an eye, and a tooth for a tooth, like the Hebrews of old, while he opens up new fields to the apothecaries beyond the dreams of avarice. The medicine will come dear, but so all things do in art, and it is the simplicity and ready applicability of the remedies that must recommend them. Dr. Hammond questions whether, among all the teeming brains that have swelled and broken on the shores of time, such a solution of the vexed question of therapeutics has ever presented itself, though dimly conscious that he may have heard of some old German who speculated on the probable results of giving a liver diet to men diseased in the liver.

What pain it is to a great inventor to find that his speculations were distilling long ago in the alembic of another's brain! And yet so active have been men's minds that there are few things said, done, or conjectured, but that the spark was struck forth in immemorial days. Eighteen very old men, said Theodore Parker, could touch hands back to the birth of Christ, and in my researches into old books I never yet found one that did not allude to some book more ancient still, and to names of scholars of dates still beyond, whose monographs and treatises have clean mouldered away in the crypts of time.

As far out of the central darkness of the Middle Ages as the seventeenth century, I find in Schroeder's "Chymical Dispensatory," 1669, that the physicians of his day, upon the same hypothesis that Hammond has proceeded, and Brown-Séquard before him, used the different animal glands and tissues, in medicine, for the cure of distempers in corresponding parts in man. The work of Culpepper, 1653, gives some recipes for preparing fox lungs into a loloch for the cure of asthmas and inflammations of the lungs, and he recommends duck livers, as being exceedingly strengthening to the liver. But Schroeder, whom Cullen respectfully criticises as an authority in his day, is more elaborate in his treatise, and quotes from Crato, Baubin, Jordan, Libavius, Crollius, and others, now no longer obtainable, as I am told by librarians whom I have consulted.

In his fifth book, Zoology, he treats of that "Part of Pharmacy that shews what Medicines are to be taken from Animals," and he gives, with anxious concern, explicit directions for the choice of animals that "have no diseased dispositions," and orders that they shall be killed by external violence, to the end that "the medicamental substances of everything fit to act, shall be without diseases, and full of wholesome tinctures."

For the relief of impotence in the man, or sterility in women, he recommends the testes of the boar, and quotes Schwenkenfield as an authority for the use of the same glands from the stag, for a similar purpose. For disease of the liver, he urges the use of the liver of the calf, the hare, the wolf, and the fox. The spleen of the calf and of the fox, he asserts, will cure diseases of the spleen, and lung diseases are benefited by medicines made from the lungs of the fox. Drachm doses of the powder of wolf's

intestines would cure colics. The dried uterus of the hare, "taken after the terms, would help conception." For weakness of the bladder, he directs a sheep's or goat's bladder to be calcined and given. And in the first and second books of his Dispensatory he gives at great length the methods to be employed in preparing these animal drugs for exhibition.

But more daring than our modern therapeutists, he deals with the body of man himself, as being so much good material for medicine that it should not be wasted on a final resurrection, but should be raised up in the living bodies of those who languish. The physicians of the day employed in their practice the following parts and excrements of the living body of man: the hair, nails, saliva, perspiration, milk, secundines, spermatic fluid, and things unmentionable. And from the dead body, the flesh, the skin, the oil, the bones, the brain, gall, and heart.

The hair was said to breed hair, and a distilled liquor was made thereof, with honey, for the purpose. The sweat, seeing that it exuded from the glands, was good against scrofula. The secundines, calci ed, and given in southernwood water, cast out moles and children dead. From the semen was made a magnetic mummy to cause love, and, as Schroeder quaintly puts it, "Paracelsus makes his little man thereof." The blood was drunk hot, as a cure for epilepsy. Applied to nose or skin it stopped hemorrhages. An oil extracted from it cured consumptions. A balsam was made of it to cure the gout. Dried gently and impregnated with spirit of lemons or vitriol, and made into troches with myrrh, it cured car. buncles.

The brain of a young man under twenty-four, who had died of violence, was taken by the chemist, with all its membranes, arteries, veins, and nerves, and beaten in a mortar; to this was added the water of tile flowers, piony, bettony, black cherries, lavender, lily-convols, until it was covered four inches. After standing awhile it was distilled, and became "a brave antileptick." Salt added to the brain, and the whole distilled in a glass retort in the sand, was used to strengthen the living brain. He tells us, "if we would have more medicines made from man, we should read the particular Tractate of Becker, in Quarto."

But Dr. Shoemaker, of Philadelphia, less aspiring, could, if he would, cure anything with kola-nut. Kola-nut, chemically considered, contains about 2.3 per cent. of an alkaloid analogous to theine or caffeine; 0.023 per cent. of theobromine; together with trifling amounts of tannic acid, sugar, albumin, cellulose, starch, fat, and fixed salts. Mild enough; but with this Shoemaker had excellent results in migraine, the acute pain soon subsiding; the vomiting was relieved, and the patient entered upon a convalescence slow as usual—but more rapid than he had expected. (Now, migraine naturally takes an increasing course until vomiting occurs, shortly after which the patient is relieved, and usually falls into a sleep from which he awakes free from the headache.) In the case of a girl, aged sixteen, whose condition was due to excessive school tasks, in a hot, ill-ventilated room, without out-door exercise, kola brought about an entire change. Under its use, and withdrawal from school, she soon regained a good appetite, her headache left, and she became able to sleep at night, and, as he delicately puts it, "she now has the courage to pass a certain portion of every day in the open air." (All of which would have occurred on the girl's withdrawal from school, if the kola-nut had been still in Africa.) But he did not pause after these triumphs; he got good results from kola-nut in melancholia, neuralgia, ulnar neuritis, spurious locomotor ataxia, gastro-intestinal irritability, irregular heart, tuberculosis, dyspepsia, gastro-enteritis, renal irritation—in fact he had a whole Philadelphia drug-store in a kola-nut! He even cured boils with it, after he had first evacuated the pus! If I have done this unconscious humorist wrong, I can but recommend kola to his attention.

A sturdier faith never prompted any man to hug the iron that wounded him than appears in Dr. J. S. Whitmore, of Metamora, Ill., who for the cure of a cerebral rheumatism took black cohosh, iron, quinine, strychnia, and iodide of potash every four hours, together with phosphate of soda and tincture of digitalis every six hours. In one month he had taken one hundred and eighty drachms of cohosh, three grains of strychnia, one hundred and eighty grains of quinine, three drachms of iron, nearly two pounds of the phosphate of soda, besides his digitalis and iodide of potash. He then went to bed and changed his drug diet to ergot, gelsemium, hyoscyamus, and citrate of potash. At the end of ten days, having got no relief, he was put on extract of manaca, citrate of potash, strychnia, quinine, iron, and cactus. Being no better at the end of fifteen days, ergot was added, and citrate of lithium. In two weeks more he was convalescent, and at last accounts he was tapering off on iron, strychnia, quinine, and hydrodic acid. Here, evidently, was a man who had nursed himself on poisons from his infancy, and in his cheerful old age he could have lain down among vipers and have defied the Borgias.

I might quote largely from minor sources—of the New York young man who gives continued doses of citrate of potash, sweet spirits of nitre, acetate of ammonia, and infusion of digitalis to a man who has not urinated for ten days. At length, under the advice of a consultant, he introduces a catheter for the first time, and discovers that there is no secretion. Of the Chicago practitioner who gives a lady, for follicular tonsillitis, within one hour, ten drops of tincture of belladonna, three drops of tincture of aconite, and two five-grain doses of antipyrin, and when the patient, in alarm, tells him that she is morbidly susceptible to the influence of quinine, and begs that that shall not be given too, "he sweetly and without passion," as Ambrose Paré would say, orders a dose of it for the morning. Hastily summoned at 8 A.M., he as hastily concludes that the belladonna rash has been caused by his one grain of quinine. For no apparent reason, except that he must dose her with something, he now gives her ten drops of tincture of nux vomica, and goes home to exploit his feat in a medical journal. But I shall refrain from further illustration, only observing that this sort of dosing is going on on all sides of us.

For from times immemorial men have believed in some preternatural power in drugs; even the occult sciences have been invoked to assist in clouding any process of reasoning on their qualities. Every this or that was under the dominion of some planet, which infused into it the virtues or vices of the heathen god under which it flourished. But whatever the drug might be, it had its inevitable rise and decline. As thus, from Culpepper, 1653, of the Amara Dulcis. "It is under the planet Mercury, and a notable herb of his also, if it be rightly gathered under his influence. It is excellently good to remove witchcraft both in men and beasts, as also all sudden diseases whatsoever. Being tied round about the neck, it is one of the most admirable remedies for vertigo or dizziness in the head; and that is the reason (as Tragus saith), the people of Germany commonly hang it about their cattle's necks, when they fear any such evil hath betided them. Take notice, it is a mercurial herb, and therefore of very subtile parts, as indeed all mercurial herbs are." As far on as 1815, I find records of the esteem in which therapeutists held the amara dulcis. It would "remove felons, open obstructions of the liver and spleen, help difficult breathing, bruises and falls, and remove congealed blood in any part of the body, besides being useful in yellow jaundice, black jaundice, and dropsy."

At the close of the nineteenth century we are too ennuied to smile at the myths of ancient theology, and the god Mercury has lost his grip on the dulcamara, but it is still recorded in our therapeutics as a remedy "for cutaneous eruptions, for chronic muscular rheumatism, chronic bronchitis, whooping-cough, and other chronic

pulmonary affections; but," it is added, "it must be long continued to produce curative effects." Many patient drug-swallowers must have believed themselves in process of time to have been cured by this drug of their chronic invalidism, to the sedate gratification of the long-winded physicians who prescribed it. But note you, in the seventeenth and eighteenth centuries it cured sudden diseases, while for seventy-five years back it has only been good for chronic diseases, and now it is rarely given, so low has its popularity waned. And in recent years, Dr. John Harley laboriously experimented upon man with its expressed juice and tinctures, in small doses and in large, without any appreciable physiological effect whatever.

Would that as much could be said of many another drug that is wont to be used in season and out of season, for some of them in unguarded hands exert as desperate effects as the diseases they are reported to cure. The largely increased use and long continuance of ergot in uterine disorders, must bring about its physiological effect in time. A lady who came under my care had taken the fluid extract in drachm doses on certain days in each month, for two or three years, under the advice of a physician in a neighboring city, until she at length had feeble digestion, impaired vision, menorrhagia, increasing languor, slow pulse and respiration, and an abnormally low temperature. When the drug was prohibited she gradually recovered, during as many years, from its deplorable effects.

How many physicians know anything of the natural course of most diseases, except by hearsay? How many have had the courage to observe for themselves, while sternly combating the seductive opportunity of prescribing a variety of unnecessary medicines? Most diseases, as they are met in practice, are so overlaid, disguised, and their symptoms colored and mingled with the effects of drugs that have been administered, that only a mongrel type is known to the profession. The skilled and philosophical consultant views the case askant until he inquires what drugs have been prescribed.

Quinine, though fallen from its high estate and passing into the hands of the laity as an universal panacea, is still given frequently by the profession for a variety of disorders. It is given promptly, largely, and even hysterically, in congestive intermittents, but its physiological effect is to cause the face to become suffused, the pupils dilated, the pulse accelerated, with coma and stertorous breathing. How shall we divine between the lethal effects of disease and drug? Few recover from the congestive intermittent, and few recover from poisonous doses of quinine.

How often is gelsemium prescribed in neuralgias, congestions of the brain, and in sthenic febrile diseases, and yet even minute doses of this drug have caused alarming symptoms: the face becomes congested, the pupils dilated, the respiration slow, the brain dizzy, and death not seldom follows.

Copaiba is a favorite remedy with most physicians in vesical catarrh, but the continued use of copaiba renders the urine darker, and turbid, and irritates the bladder, causing micturition and sometimes hæmaturia.

Typhoid fever persists, ferocious, undeviating, in spite of the fifty odd drugs prescribed by the variety of physicians in attendance on a given number of cases. Some of the patients lie muttering under the spell of alcohol, some in extreme hebetude of mind lie dazed under the swooning influence of enormous doses of quinine, some lie weltering in the perspiration induced by antipyrin, but all who do not die before times continue to be prey of the riotous fiend just the same as if no powerful drug had been administered. And yet who dare aver that active medication does not imperil the sick man's chances?

Think of the saturnalia of drugs that has been administered for the relief and cure of hysteria! Ether, amber, amyl, assafœtida, camphor, castor, dracontium, galega, musk, narcissus, succini, parthenium, lead, bromides, primula, ruta, houseleek, mustard, rosemary, sumbul, tansy, linden, and thirty more. In the main, all useless, for where isolation, psychic treatment, hydrotherapy, mechanotherapy, and perhaps electrotherapy fail, outside of the valerianates and three or four other drugs, the whole host beside but aggravate the paroxysms.

The better the diagnostician, the simpler the prescription. The physician confused by the disease defends himself with a confusion of drugs. The less confidence he has in himself, the larger the army does the general gather about him, desiring to crush by numbers where his skill cannot avail.

There is a disease that ravages the earth, and many a plumed knight has gone forth to conquer it and has been himself conquered in turn. It selects its victims in hovels and in palaces, and gloats equally upon the beggar, the prince, the dullard, the artist, and the poet, the lady with the camellias and the sewing-girl in her garret. Its stealthy tread is not only in country byways, but it walks unseen in the populous mart. It destroys more lives than any other disease, not excluding the pestilence of cholera. Like the dread Angel of the Judgment, it enters all families, chooses, and is gone. So softly has it stolen that not even the parent is aware, and the lover sees only a more ethereal beauty in the face that is soon to become but a memory in his soul. Her face is flushed with kindlings of eternity, and her eyes grow large and lustrous, and fixed in their pathos as though she held reveries with unseen bands. So rapt is she that she feels not the cruel fangs upon her vitals, and were it not for the low cough that betrays the demon at his sacrificial feast, we too should be deluded into thinking the tuberculosis had abandoned his victim.

We try a hundred schemes to balk him, and to rout him from the field. Iodoform, aniline, thymol, ozone, corrosive sublimate, hydrofluoric acid, inhalations of carbolic acid, creosote, iodine, eucalyptol, turpentine, sulphurous acid, chlorine, sulphuretted hydrogen; intrapulmonary injections of iodol, camphor-carbolate, napthol, guaiacol. The introduction of the bacterium termo to war upon its natural foe, the bacillus tuberculosis: Liebrich's injections of cantharidinate of potash; subcutaneous injections of goat's blood, dog's serum, Koch's tuberculin, and Brown Séquard's fluid (Shrady). But the end is the same, and unless we resort to the ameliorating influences of climate we have tortured in vain.

I am aware that there are members of the profession who frequently give medicine, not so much from a belief that the patient's disease demands it, as from an astute sense of the fine moral effect it has, for their own benefit, on the man's friends. There are people who would be clamorously dissatisfied if a relative with an incurable disease should not be well dosed on his descent; very much after the fashion of staid old sectarians in out-of-the-way neighborhoods, who would be scandalized if one should go to heaven without benefit of clergy. And then, too, it is a convenient mask to a perplexed spirit to be industriously giving something when the case is not understood. The doctor's dignity of knowledge is not questioned—he is hard at work dosing the obstinate sick man, all must be right! "When I have a case I do not understand," confessed an old New York professor, "I give iodide of potash."

If the souls of the civilized on their last journey were suddenly rehabilitated in flesh and marched before skilful judges, it could be told in large measure to what doctors these one-time patients had belonged. One drove would be found branded with tincture of iodine wherever there had been a swelling or a pain. Some would have been snipped in their noses by the perfunctory laryngologist. Here would come a platoon wearing plasters; another, sopped with poultices; a third would have been blistered most cruelly by the inexorable quidnuncs that attended them. Drunkards with skins stabbed thick with Keeley's motors would go reeling by. Women without ovaries. Troops of sad wretches slain by fever, their stomachs

corroded by a diversity of drugs. Hospital patients yet swathed in bandages from experimental operations on hopeless diseases. Epileptics hideous from bromism. Paralytics yet quivering and gyrating, scarce escaped from the electrician. The wan victims of phthisis eloping in a mist of sprays by day, and pursued by hypodermic spearmen at night.

For after all these interminable centuries of dosing, and the ultimate skill arrived at in the profession in the selection and application of the drugs, there is no difference in the mortality-rate of most diseases from what it formerly was. The death-rate for New York City in 1892 was 24, and during the week ending April 1st, of the current year, it was 33.2. And for the year ending June 30, 1892, it was, in cities of over 5,000 population in New Jersey, 24.81 per thousand. In an estimated city population of 870,985, there died, below twenty years of age, 11,217 individuals, or one-seventieth of the entire population. Surely here was the strongest incentive of our art to rescue the bud and promise of the race, and I doubt not the zealous activity of the apothecaries, at the instigation of the profession, while the cold, pathetic Azriel lingered; but drugs could not stay this crusade to the tomb.

Upon an individual analysis of the fatal diseases in the State, for the year ending June 30th, as aforesaid, I find that 1,008 died of scarlet fever, 1,776 of diphtheria and croup, 3,575 of consumption, 5,187 of acute lung diseases, 2,242 of brain and nervous diseases of children, 2,457 of adult brain and spinal diseases, and 1,625 of digestive and intestinal diseases. And the number of deaths from the chief preventable diseases was 11,720. Altogether there died 32,685, out of a population of 1,511,653, or in other words, about one forty-sixth of the entire population died last year. If it were not for the foreign influx, where would New Jersey be in less than a generation, for the deaths exceeded the births by 2,058, in spite of the pharmacopœia.

But if this prodding stirs some saturnine brother to resentment, and he cries out testily: "What, then, have drugs done no good? Are they all equally fallacious and dangerous? How are we going to practise medicine without them?" I must return, that you have a very inferior idea of the profession, indeed, if doctors are only to be pill-venders. That drugs have done good when wisely applied goes without question. We know that opium assuages pain, the salicylates conquer rheumatism, phenacetin eases headache, pepsine assists digestion, and that men in all diseases have been comforted by the apothecary's art. But the mortuary lists of the Board of Health can furnish no monument to the living. It was Dr. Billings' conclusion in his lecture on "Vital and Medical Statistics," in 1889, that, "although the expectation of life is greater, yet this is only true of the earlier ages. After a man reaches twenty his expectation of life is less than it was fifty years ago, for the reason that more persons of feeble constitution are now nursed to manhood. The decrease in the general mortality is due to better care of infants, and the prevention of contagious diseases. So far as statistics show, there does not appear that there is any difference in the mortality-rate of most infectious diseases from what it used to be. Or if there is any difference, it is one which may be attributed to the special character of the epidemic, or the age and constitution of the people."

This being true, what are we going to do about it? The lives of the world are submitted into our hands. We have drugged the populace well, and they have not profited by it. Like great magicians, we have juggled with drugs, and have professed to cast out disease with pellets and fumigation, but we have not assumed the sublimer attitude of striking at causes. Are we to be like a swarm of lawyers and churchmen, forever following precedent—invited forward by great enterprises, but plucked backward by ghostly hands? Here and there a lonely reformer appears, but there is no unanimity of the profession. The people are apathetic because they have not been instructed. Governments are deaf because we ourselves have never been impressive.

In those ideal commonwealths, Plato's Republic, Sir Thomas More's Utopia, Bacon's New Atlantis, Campenella's City of the Sun, the art of medicine was given an inferior place, while the law-maker was exalted to the chief station. What a botch the law-maker has made in real life may be read in the uneasiness of all lands. But there is a growing anticipation as to the exalted mission of our profession, which is not confined to race or creed.

Whether the rise and fall of great civilizations is like the lifting and subsiding of monster waves, where all at length becomes a dead smooth sea, and where at best only a certain exaggerated undulation under the stress of fugitive storms is possible, or whether mankind, like a race of Titans, sometimes descends into hollows and caverns, or camps on the edges of deserts for an age, while it renews its strength for fresh encounters, and climbs again a higher range and wrests the secrets of nature from the taciturn lips of rocks, and under the cold stars wrestles with the jealous angel of the Lord, like Jacob of old, and holding fast to the divinity conquers its blessing, time is yet too young to tell. But if we might indulge in lofty anticipations which the progress of this century would seem to justify, we might in our own particular art conjecture that the day will come when physicians, as a body of public men, will be the true generals of the commonwealth. To them will be consigned the preservation of the nation, the fighting and eradication of the microscopic enemies that menace more lives and destroy more victims than all the standing armies of the world. And where a few thousands are now grudgingly doled to the science that seeks to foster the lives of men, while millions are voted annually to the art that is trained to destroy, the scale will be reversed and the public purse will be opened with alacrity to the aid of the enterprises of the guardians of the race, while the army will be cut to the smallest stipend.

No one disputes now the right of the State to conserve the public health by establishing quarantines, hospitals, asylums, the regulating of travel and commerce from ports of infection, and the general jurisdiction in sanitary affairs. It is a function that will assume vast proportions, and must come under the immediate control of the physicians of the commonwealth. Under such a régime we may expect that these officers of the State will order the affairs of the citizens so that no man shall live for private greed, but, as in ancient Sparta, each man shall conclude that he was born not for himself but for his country.

And under all their labors to eradicate infectious diseases, to enlighten the people in sanitary living; their removal of the tuberculous, the asthmatic, the rheumatic to proper climates; their modelling of tenements, inspection of food, regulating of marriage, these graver minds will read those portions of our literature with amused contempt and pity, where learned societies waste their time in disclosures and debates as to the rival claims of this or that drug, or combination of drugs, in the cure or relief of yellow fever, diphtheria, scarlatina, typhoid and typhus fever, cholera, and such like diseases, instead of striking at the root of these scourges, and with an overwhelming dictum forcing the public conscience to the only sensible remedy—the banishing of them altogether from the face of the earth.

Opium Consumers in Burmah.—A new law will shortly be put in execution in Burmah, according to the provisions of which habitual consumers of opium in that province must register their names, and the Treasury officers can issue the drug only to the people registered.

Boils.—The external use of chloral is recommended very highly in the treatment of furuncles. The boil is to be kept covered with a compress soaked in a solution containing four drachms of chloral in one ounce each of water and glycerin.

CHOLERA: SOME SUGGESTIONS FOR LOCAL AND PERSONAL PROPHYLAXIS.[1]

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The germ of Asiatic cholera is the spirillum choleræ asiaticæ, as demonstrated by Koch in the Egyptian and Indian epidemics of 1884. Among other bacteria which have been advanced as the cause of the scourge it is only necessary to mention two or three. The spirillum metschnikovi, while it resembles the true cholora germ in its morphology, biology, pathogenic qualities, and even in the color reaction of its products with sulphuric acid, yet differs strikingly in that it has never been shown to produce cholera in the human being. It is exceedingly fatal in Asia to chickens, pigeons, and guinea-pigs, producing most diastrous epizootics among the birds, but no outbreak of cholera in man habitually coincides with such bird-pest, and conversely, no such plague among the birds appears simultaneously with the frequent extensions of cholera in the human being. Klem has claimed that the bacillus of Finkler and Prior, B. prodigiosus, B. coli commune, typhoid B., and proteus vulgaris, each produces the same poison as does the spirillum of cholera, and that they render the system immune from Asiatic cholera. The fact that these bacteria are constantly with us, and that by themselves in non-cholera years they do not produce this affection, sufficiently disposes of any claim that they can generate true Asiatic cholera. Blohstein, of St. Petersburg, in his investigations in the epidemic in Baku and Astrachan, found and described two new bacteria which he considers essential factors, along with the cholera spirillum, in the causation of Asiatic cholera. He found that the cholera dejections, when inoculated hypodermically on animals produced all the symptoms of Asiatic cholera, while pure cultures of the spirillum choleræ asiaticæ did not. The first objection which presents itself is, that neither in man nor in animals have other observers found cholera propagated by endermic nor by hypodermic inoculation of the dejections; that the germ does not propagate in the blood, nor, apart from the intestinal mucosa, in the tissues. Man may handle the dejections without fear, even though he may have skin abrasions, so long as he takes due precautions against the introduction of the germ into his mouth. So in all the experiments of Koch and others in transmitting cholera to guinea-pigs, no effect whatever is produced by hypodermic or intestinal inoculation, and success only follows the introduction of the virulent germ into the alkaline intestine. It would, however, be premature to condemn Dr. Blohstein's conclusions without further experimental inquiry. The toxines of two otherwise harmless bacteria may become deadly when combined, and conversely, the most poisonous toxines may act as antidotes to each other, so that both are thereby rendered harmless. As an example of the first is the bacillus of malignant œdema, or that of Rauschbrand, which is harmless to an immune animal, but becomes deadly to the same animal when associated with the bacillus prodigiosus (Roger). As an instance of the second may be named the bacillus anthracis, which though deadly to a susceptible animal may be rendered non-fatal by inoculating at the same time with the germs or the chemical products of the pneumococcus of Friedländer, the staphyloccus pyogenus aureus, the streptococcus erysipelatos, the bacillus prodigiosus, or the bacillus pyocyaneus (Emmerich, Pawlowsky, Bouchard, Freudenreich). As a still simpler example of the effect of chemical compounds we have the fact that an animal immune from either anthrax or Rauschbrand is rendered dangerously susceptible by the addition of lactic acid. Such facts, which might be largely multiplied, should warn us against too hurried or absolute conclusions as to the influence of additional organisms and their products upon the pathogenic properties of the cholera spirillum or other disease germ. It is not improbable, therefore, that other germs may contribute to the pathogenic rôle of the cholera spirillum, rendering it specially deadly in given epidemics, or according as they may be present or absent from the alimentary canal, determining the susceptibility or unsusceptibility of the subject. Further experiment is necessary before we can confidently accept or reject Blohstein's results.

Coming back to the spirillum choleræ asiaticæ, which we must accept as the essential factor of the disease, we can now intelligently deduce from many known facts of its life-history how its pathogenic results may be warded off.

Morphology.—The cholera spirillum is a bent, twisted, mobile rod 0.8 to 2.0 micromillimetres in length and furnished with one terminal flagellum. If growth is retarded by cultivation in an unfavorable medium the different elements fail to separate from each other and become prolonged in the form of a spiral. In old cultures the individual elements are liable to show involution forms, becoming swollen and distorted at points (the arthrosporses of Huppe). The germ has, however, never been seen to produce true spores, and therefore it is much more destructible and more easily controlled than are the spore-producing bacteria. The spirillum stains best in an aqueous solution of fuchsine, and is decolorized by iodine (Grave's solution).

Biology.—The cholera spirillum is aërobic and grows well in almost any neutral or alkaline nutritive medium. Hence it is to a great extent a filth disease, clinging to soils saturated with decomposing organic matter, and maintained in an alkaline condition by the constantly evolving ammoniacal gases. This holds true alike of the filth-laden street or hamlet, or the soil charged with the decomposing vegetation of the tropics, and, above all, of the river deltas (Ganges, Nile), which receive the accumulated organic débris of a large tropical area, and expose it to the rays of an equatorial sun. This germ is, however, a facultative anaërobic organism, and can secure what oxygen it requires from the white of egg, the contents of the bowel, or, in some animals, from the blood.

It is extremely sensitive to temperature. In culture media its growth ceases below 14° C. and above 42° C. Its vitality is not destroyed, however, and on being restored to an intervening heat growth commences anew. It is killed in ten minutes by exposure to 52° C. (Sternberg), so that it is always easily and safely destroyed by boiling or an equivalent dry heat. There can be no more effectual mode of sterilizing soiled clothing, vomit, or dejections, than by exposing them to a boiling temperature. On the other hand, Babes has successfully cultivated the spirillum which had been exposed in the open air in a Berlin winter, so that the habitual disappearance of the disease in northern latitudes during cold weather must be explained otherwise than by the exposure to frost. Its extinction under such circumstances is to be attributed rather to its unsuccessful struggle for life with other bacteria at a temperature unfavorable to its vitality and growth. In ice collected from infected ponds and rivers this antagonism is not met with, and the use of such ice is therefore a means of infection.

Dried up in a thin film the spirillum dies in a few hours. There is, therefore, almost no danger from street dust, contrary to what is the case with the comparatively indestructible germ of tubercle. These two germs indeed are respectively favored by antipodal conditions. The bacillus of tubercle reaches the air-passages of man and beast through the whirling clouds of street dust, while the spirillum of cholera is preserved only in the close, narrow, sunless, damp street, where the filth is protected against dessication. Dampness thus becomes a potent factor in the maintenance of cholera in the squalid and impoverished areas of our cities, as dryness contributes to its disappearance from districts where the streets are broad, roomy, sunny, and dry.

The influence of weather is to be largely explained on the same ground. A damp, foggy, or rainy period preserves the germ against dessication and destruction, while a dry, dusty time is often the signal for an abatement of its ravages. It has been noticed that during

[1] Read before the Tompkins County Medical Society, May, 1893.

some cholera epidemics a "blue fog" hung over the surface of the ground, and that the disease abated when the fog cleared away and dry weather set in. In other terms, so long as objects on the surface of the ground were kept in a moist condition the cholera germ was preserved, whereas as soon as these were dried up it perished.

In the same way may be explained the Pettenkoffer theory of the influence of a rise of the ground-water level. When the ground-water is low the surface is dried and the surface bacteria destroyed; when, on the contrary, the ground-water rises to the surface the germs surviving in the water are brought up with it and gain an entrance into wells and other sources of infection.

As drinking-water is now recognized to be the most frequent channel of infection, it is well to note that the rapidity of multiplication of the cholera germ is to a large extent in ratio with the dilution of the medium in which it grows. Thus it is propagated much more slowly in bouillon of the density commonly employed for the culture of other microbes than it is-when the mixture has been diluted with eight or ten times its bulk of water. Extreme dilution is rather favorable to it, and it retains its vitality for several months when added to well or river water which has been previously sterilized (Wolffhügel and Riedel). In still water at 17° C. to 24° C. it multiplies in fifteen to sixteen hours. Growth is more active in pure well or sterilized water than in stagnant water charged with organic matter and bacterial ferments. This antagonism of dense nutritive solutions and of other saprophytic bacteria is strongly suggestive in several directions. The apparent purity of any well or river water which may by any chance have become contaminated is no guarantee of wholesomeness, but rather the opposite. In the impure, stagnant, and septic water the cholera spirillum is doomed to a somewhat early destruction, whereas in pure water, and, above all, in that which has been sterilized, its life may be greatly prolonged. In cultures made along with other saprophytes, and especially with B. prodigiosus, the growth of the spirillum was greatly retarded, but it was not killed (Babes). In the rice-water dejections growth is most active when first passed, but the propagation of the germ is speedily checked as the liquids evaporate and the material becomes denser and more acid. The antagonism of other saprophytes is greatly lessened if the liquids are largely diluted, and under such conditions the spirillum may take precedence of all other bacteria and form its characteristic wrinkled film on the surface (Gruber and Schottelius).

The principal sources of water contamination are the bowel dejections, vomited matters, foul clothing, house slops, especially that produced by the washing of infected houses and infected bodies. The importance of the stools and vomit lies in the fact that in man the germ is only propagated in the intestine. It fails to live in the blood or tissues, and it is only what escapes from the bowel that is to be feared. But in severe cases the discharges are so profuse as to endanger everything in the room, and therefore nothing can be considered as beyond suspicion, and nothing should be allowed to leave the room without thorough disinfection, unless it be clothing tied in a close bag to be subjected to dry heat or boiling without being opened. The house slops, if they cannot be boiled, should be made strongly acid, and left so for several hours before they are thrown out. Corpses should be burned, or wrapped in cloths wet with a mercuric-chloride solution, and buried at a safe distance from any well or water-course. No prophylactic measure can be more important than the protection of water supplies. Artesian and deep-flowing wells are safe, but rivers, ponds, shallow wells, and such as are not safely cemented against all surface leakage, are ever to be suspected during a cholera epidemic.[1] The rational plan is to boil all other water which is to be used for drinking, washing the mouth or teeth, the hands or the face, and for all household purposes.

The predilection of the spirillum for water and dilute watery solutions has a very direct bearing on the mode of development of the disease, and on its prevention and early treatment. As if to secure a proper culture-medium the germ determines a profuse secretion from the intestinal mucosa, and it may fairly be inferred that, in the absence of this, the case is destined to prove a benignant one and the patient to recover. If, therefore, the profuse secretion can be anticipated and prevented, the spirillum is likely to be repressed by the density of the bowel contents and the antagonism of the saprophytes, and the ptomaïnes and toxines are never absorbed in dangerous amount. Here is a ground for the long established opium treatment, which does appear, in certain cases, to abort the malady when employed in the very earliest stages. Here, too, is a rational explanation of the apparent benefit of the early use of aromatic oils, and of Cantani's exhibition of tannic acid by enteroclysis and by the mouth. Here, too, may be found a partial explanation of the beneficial operation of acids, aside altogether from their destructive action on the spirillum. But while opium has undoubtedly proved useful in the incipiency of the disease, its use is attended by a great danger, for if it is used after the secretion of the rice-water fluid has occurred, or if it fails to prevent such secretion, it checks the peristaltic movement of the bowels, locks up the infected culture fluid by checking peristalsis, and seals the doom of the patient. The action of opium in such a case is precisely that which Koch has availed himself of in securing the infection of the guinea-pig.

Milk, like water, forms an excellent culture-medium, and watered milk is trebly dangerous, because the water may have been contaminated, and the diluted fluid is more favorable to the growth of the germ. The milk is liable to contamination from the hands of the milker, the skin of the udder, or from dishes that have been rinsed out with cold, contaminated water, or wiped with towels that have been rinsed in such water. Where cholera exists the only safe course is to raise the milk for ten minutes to 130° F., or upward. Milk that has stood till sour is not thereby rendered safe, as the spirillum lives for two days even in milk that has soured. Another point is worthy of note. Milk which has been sterilized forms a better culture-medium than fresh milk, as it contains no antagonistic microbes, and it is prevented from turning acid, so that two influences inimical to the spirillum are eliminated. After sterilization, therefore, milk should be kept in a scalded vessel, well covered from any possible source of contamination. On milk or bouillon the cholera spirillum forms a characteristic, grayish, wrinkled, surface film, but the absence of such a film must not be taken as a guarantee of purity.

As bearing on the influence of moisture in preserving the spirillum the following data are interesting: It lives one day on rye-bread drying in the open air, three days on bread wrapped in paper, and seven days on bread covered with a bell-jar. It lived four to six days on feebly acid butter, seven days on roast meat under a bell-jar, four days on smoked fish under a bell-jar, twenty to thirty hours on dried fruit, four days on fruit under a bell-jar, one to three days on fresh cauliflower, and seventeen hours on the dried leaves of a book (Uffelmann). On apparently dry cloth it lived four to six days, while on moist cloth it lived twelve days and multiplied. It can thus find a temporary home and culture-medium on cloth as well as on the common food products, and thus the prompt sterilization of every article of soiled clothing becomes a prophylactic measure as vital as the maintenance of the purity of the food.

The growth of the cholera spirillum is always retarded by the presence of acids, and its death follows if these are in excess. Boër found that it was killed by a two hours' exposure to hydrochloric-acid solution, 1 to 1,350, or to sulphuric-acid solution, 1 to 1,300. Acetic and citric acids, and consequently lemons, lemon-juice, and

[1] In the city of Pondicherry, Hindostan, which derives its water from artesian wells and a carefully enclosed and protected reservoir, epidemics of cholera are unknown, though the surrounding country, from Madras southward, is being swept over by the plague.

acid oranges, are to be accounted prophylactic. Lactic acid in excess will destroy the germ, yet, as we have seen, it will live for two days in souring milk. The organic acids are less reliable than the mineral acids, and if these are mild or dilute their presence may fail to check the growth. Thus the spirillum can accommodate itself to the acid developed on the cut surface of a raw potato.

The free acid of the gastric juice (2 to 1,000) stands as nature's guardian for the protection of the bowel, and, during active, healthy digestion the person is safe. During abstinence, however, the stomach may be entirely empty, even of gastric juice, and the little mucus and saliva present are rather favorable than inimical to the germ. With this alkaline saliva, and, above all, with a draught of water or watery fluid, the germ may be washed on into the alkaline duodenum direct. Iced water, by actively stimulating the peristaltic movements of the stomach, is especially calculated to hasten this passage. Prolonged abstinence should therefore be avoided, and unboiled water, which may possibly have been contaminated, should be especially refused between meals. Tea or coffee made with boiling water, acid lemonade, or other acid drinks are to be preferred.

Whatever tends to derange digestion is to be avoided. The escape of the bowel—the one organ in which the spirillum can dangerously propagate itself—is contingent on the due acidity of the stomach, which must be sufficient to destroy every cholera germ that enters it. If, therefore, the gastric secretion is impaired or arrested, or if from any cause the gastric contents are hurried through the pylorus without thorough permeation by the acid liquids, the infection of a susceptible subject is rendered possible. This accessory cause is subsidiary, it is true, to the primary and essential factor of the disease—the presence of the spirillum in the food, drink, or saliva swallowed—yet in its place it is so essential to pathogenesis that it must be accorded a place in the front rank of all considerations looking toward prevention. It will not be superfluous, therefore, to identify some of the more common causes of the passage of undigested albuminoids through the stomach, and especially such as come under the direct control of the individual himself.

Drinking of water or otherwise harmless liquids to excess at meals acts injuriously in two ways: It favors the preservation and propagation of the spirillum by providing it with its favorite dilute solution, and it hastens the passage of food into the duodenum before it has been sufficiently acted on by the peptic acid.

Excess of iced water is still worse, as this stimulates the muscular coat to violent vermicular contraction, thereby adding to the force which impels undigested matters through the pylorus.

Hot coffee, tea, chocolate, or lemonade in moderate amount, are safe substitutes.

Aqueous vegetable food introduces the same element of danger. In turnips, carrots, cabbage, fresh fruits, etc., we have in round numbers ninety per cent. of water, so that they dilute and weaken the gastric acids, furnish a favorable watery medium for the growth of the spirillum, and foster other fermentations, with evolution of gas, and hurry the undigested mass through the pylorus. Once present in the duodenum these join the spirillum in stimulating a free alkaline watery secretion, and thus producing a fruitful field for the culture of the germ. As a rule, lemons and other acid fruits are protective, but we must not forget the well-known action of green apples and other unripe fruits in producing acute indigestions, which must be a prolific cause of the evasion by the germ of the gastric sentinel.

Spoiled and stale fruits and vegetables add to the above dangers that of the injurious action of the ferments already in active process of reproduction, together with their more or less poisonous ptomaïnes and toxines. These are so notoriously injurious in cholera seasons that no effort should be spared to exclude from the market whatever has started on the road to decay.

In this connection the proverbial indigestibility of certain salads deserves mention, and the injunction to confine the diet to cooked dishes is in order. The usual washing of vegetables is a possible source of infection which should always be counteracted by the sterilizing action of heat.

Unwholesome food of all kinds is dangerous as causing the derangement of the gastric secretions and motions, and the passage of undigested masses through the pylorus contributes to favor the escape of the germ. The poisonous action of many of the ferments and their chemical products demands that whenever food has started to decay it should be rigidly withheld. This applies to farinas, eggs, meats, and, above all fish, in which decay is so rapid and the products often highly injurious. Tough, fibrous, or otherwise indigestible meats are especially dangerous for invalid stomachs, as the more resistant pieces tend to pass on unchanged and carrying the still viable germs in their interior. Hurried eating and bolting the food unchewed and unsalivated introduces the same danger, which is greatly enhanced in the case of vegetable food, consisting mainly of starch, which must pass through the stomach unchanged in the absence of saliva. Eating to excess so that the stomach cannot readily digest its load, tends similarly to the passage of undigested particles and of the spirillum if present. The general resort should be to eat moderately, at regular intervals, of your customary food, taking care that it is fresh, easily digestible, well cooked, and thoroughly masticated and insalivated. If it is unavoidably tough and indigestible, cook until disintegrated and tender.

Avoid excessive exertion just after a meal. It arrests digestion, favors fermentation, and paves the way for the passage of the spirillum.

Excessive fatigue lowers the tone of the whole system, and, above all, of the stomach, thus favoring the escape of the germ and preparing the system to succumb to its poisonous products. Idleness is not to be commended; maintain the tone by regular moderate exercise, but don't exhaust the system by working to excess.

Loss of sleep and of needed rest impairs all vital functions, but none more than the digestive. This comes under the general heading of fatigue, but as it is so often incurred in the pursuit of pleasure it deserves a special note of warning against late hours and night amusements generally.

Exposure to cold and wet not only favors indigestion, but also tends to a febrile reaction and a general lowering of the vitality and resisting power of the tissues and of their protoplasmic nuclei. Many attacks of cholera have been directly traced to the predisposing cause of sleeping on the cold damp ground, and many more to the chills consequent on exposure to the night dews in clothes that were comfortable under the noonday sun. The value of a woollen abdominal bandage, and of extra clothing at night or during a cold period, must not be forgotten. For those with a weak circulation, cold feet should be carefully guarded against

Fear and all depressing passions lower the tone of the nervous system and protoplasm, and are particularly liable to impair digestion. The common advice, therefore, to dismiss fear, is no unimportant one, and to-day this can be enjoined with the confidence that there is really nothing to fear provided the requisite precautions are taken. Cholera is not any longer the "pestilence that stalketh in darkness;" it is but the fruition of a seed that cannot successfully assail man unless it reaches his duodenum, which cannot reach this viscus except through the stomach, which cannot escape destruction in the acidity of a healthy gastric digestion, which cannot survive in the absence of moisture nor in the presence of mineral acids or other disinfectants, which is easily destroyed by heat, even that which is far below the boiling temperature. A few simple precautions directed against the swallowing of contaminated articles will place a man in a position in which he need have no apprehension of an attack of cholera, even though he reside in a cholera district.

Bodily cleanliness must not be omitted. The accumu-

lation of cutaneous secretions, dust, and bacteria on the skin clothes the person in an envelope in which ptomaïnes and toxines hold a prominent place. By the absorption of these the whole system may be debilitated, and an impairment of digestion is too often an important feature of the lowering of tone. A daily soapy wash is desirable, and, if the weather should be cold, a chill should be carefully guarded against.

The habitual use of alcohol or opium is to be strongly deprecated. This may be safely based for alcohol on the notorious fatality of cholera among heavy drinkers, who always furnish a far greater relative number of victims than do other classes. The government sanitary authorities in Hindostan, who have had a greater and longer experience of cholera than anyone else, emphasize this in the following words: "The practice of drinking spirits is believed to be a certain promoter of the disease, and they should not be taken on any account" (Report on Cholera in Europe and India, Shakespeare, p. 857).

Now alcohol of ten per cent. and upward retards the growth of the cholera spirillum in artificial cultures: if therefore there were no drawback it ought to be preventive or even curative. But, as statistics show, the disadvantages far more than counterbalance the advantages. In the first place, the weaker drinks contain too little alcohol to inhibit the growth of the germ, and the stronger liquors cannot be safely taken in quantities large enough to maintain such concentration of the gastro-intestinal contents as would secure the requisite inhibition. Beer contains but from two to five per cent. alcohol, ale but eight per cent., claret ten to twelve per cent., port and sherry eighteen to twenty-two per cent., brandy and whiskey, fifty to fifty-five per cent. It requires the higher strengths to kill the germ, and no one could bring his whole intestinal contents up to fifteen or twenty per cent. and maintain it there with impunity. The rapid absorption of the volatile alcohol would speedily diminish the state of concentration, and at the same time determine a profound and dangerous narcosis. Then such large doses greatly retard the oxygenation of the blood, as shown in the experiments of Prout, Vierordt, and Smith, and as seen in the dark, bloated face of the deeply intoxicated. In this connection we must bear in mind that the arrest of hæmatosis is one of the most marked and dangerous phenomena resulting from the cholera poison, so that alcohol is increasing the peril.

Another consideration is that the habitual free use of alcohol lowers the vitality and resisting power of the leucocytes and tissue-cells, and leads them to succumb more readily to the cholera poison. It has long been recognized that alcohol lessened the antagonism to the streptococcus of erysipelas, and a serious surgical injury to a brewer's man was received almost as a death-warrant. Equally in the case of cholera the prospects of the heavy drinker are at the lowest ebb.

Again, alcohol, like opium, tends to lock up the poison within the bowel and afford it the best opportunity for a deadly proliferation. In his attempts to convey cholera to guinea-pigs all Koch's efforts failed until he injected tincture of opium into the peritoneum and thereby checked the peristaltic movements. Doyen found that the injection of alcohol had precisely the same effect, and the guinea-pig, having taken the cholera germ in a soda solution to neutralize the gastric acidity, usually fell a victim to cholera. Strong alcoholic liquors, like opium, undoubtedly tend to check peristalsis and intestinal secretion, and may thus, in certain incipient cases, moderate an attack by preventing the free serous effusion; but if this fails of accomplishment they both alike introduce the fatal condition of a more prolific intestinal culture and a more abundant production of the toxic elements.

But perhaps the gravest objection to the free popular use of spirits as a supposed preventive and cure lies in their tendency to disorder the gastric digestion, the integrity of which we have seen to be such an important factor in prophylaxis. The nausea, vomiting, and impaired digestion which result from excess, whether intermittent or habitual, opens up the best possible chance for the advance of the germ, if that has gained an entrance to the stomach. Dr. Fergus, of Glasgow, whose experience in a community who are large consumers of ardent spirits entitles him to speak with authority, says, in his instructions for the prevention of cholera: "Do not take brandy; it is not a preventive, and it does harm by disordering the action of the stomach and bowels."

For the man who habitually drinks wine in moderation with his meals it may be unwise to suddenly stop the accustomed stimulant, as the system would temporarily suffer; but if he will take the light acid wines in place of the stronger beverages, he will at once avoid this danger, and will at the same time secure a safe and valuable protection in the acid taken. Cider which has soured may be used as a substitute. For the non-habitué entire abstinence from alcohol and the maintenance of a vigorous, healthy digestion is the course to pursue.

As a refreshing drink for hot weather during a cholera epidemic, acid beverages are to be strongly recommended. Their value was strikingly illustrated by the experience of Dr. Curtin, in a Pennsylvania Insane Asylum. Two or three cases were occurring daily, but these ceased abruptly when a drink made with sulphuric acid, lemon, and sugar was supplied to the inmates. This beverage having been suspended for several days, two more cases occurred. It was again furnished, and no further cases appeared. Forty drops dilute sulphuric acid in a pint and a half of boiled, sweetened water, flavored with lemon, makes a pleasant and refreshing beverage.

Sawtschenko, in showing the existence of cholera spirillum in the intestinal canal and excrements of flies fed on cultures of this germ,[1] has made a timely contribution to the prophylaxis of the disease. It cannot be doubted that flies carry the germ on their feet as well as in their ingesta, and passing from the dejections to human food and water supplies, are chargeable with unexplained disseminations of the virus. It becomes important, therefore, to exclude flies from the sick chamber by the use of mosquito-netting or wire-screens, and to destroy any flies that may gain access by pyrethrum or other insect-poison. The prompt and thorough disinfection of all dejections, vomit, soiled clothing, and left food or water, and of all articles that have been used in the room is no less urgent. For the same reason, in cholera localities, all food should be kept under cover or screen, in such a way as that no fly nor other insect can gain access to it. Propagation through the intervention of flies is probably a main reason why cholera is so largely a hot-weather disease, and tends to die out in winter in northern latitudes. We have analogous examples of propagation through insects in the case of chicken cholera, which is easily circumscribed by a fence in winter when no flies exist, but which defies any such barrier in summer, in the fly season; also in the case of the Southern cattle fever, which prevails in the hot season, when inoculated by the wood-tick, but subsides in winter when the ticks are dormant. It has been noticed that flies disappeared during certain cholera epidemics, and it may now be questioned whether they themselves suffered from the poison, and how far their disappearance contributed to the subsidence of the epidemic.

Slight or "walking" cases present a serious danger, as no disinfectant is employed on their dejections, which may thus become the means of unexplained outbreaks. The public should be warned of the extreme danger of neglecting such cases, and it would be an excellent measure to have all cases of diarrhœa which occur during a cholera epidemic secluded in their rooms as suspected persons, and subjected to all the disinfectant precautions which are enjoined for a fully developed case. There would be considerable unnecessary seclusion, but there would be a far more perfect guarantee of the public health.

It should be understood that in all such cases, the

[1] Centralblatt f. Bakteriologie u. Parisitenk., xii., 893.

same as in those which are pronounced and unequivocal, none but the necessary attendants should be admitted to the sick chamber; the latter should neither eat nor drink there, and before doing so elsewhere should always wash and disinfect hands and mouth. So, too, with the dishes, forks, knives, and spoons used by the patient or introduced in any way into the room. These should be disinfected before removal. No food should be allowed to leave the room, and all broken victuals should be instantly burned or boiled.

A STUDY OF THE FACTORS CONCERNED IN THE RECONVERSION OF PEPTONE INTO ALBUMIN.[1]

By JAMES KENNEDY, M.D., PH.G.

MR. PRESIDENT AND GENTLEMEN: The manner of the reconversion of peptone into albumin, and the factors concerned therein, is a subject involving the process and products of digestion, and it is with the means by which this process is carried on, and the products resulting therefrom, that our paper has to deal. With reference to the process of digestion, a very brief outline will suffice for the purposes of this paper.

The elements of nutrition with which the digestive functions have to deal are divided into two classes, viz., organic and inorganic. The changes effected by the digestive functions in the inorganic or mineral compounds are relatively simple in character, and are, generally speaking, confined to the conversion of the substance into a soluble form so as to allow of its ready diffusion. The organic compounds are very much more complex in composition than the inorganic compounds, and in addition undergo changes of a much more complex character.

The organic elements of food are divided into nitrogenous and non-nitrogenous: the nitrogenous class being represented by the albuminoids or proteids; the non-nitrogenous bodies being represented by the sugars and starches. These substances (the starches and sugars) are acted upon by the digestive ferments and made to appropriate a molecule of water, and are converted into glucose according to the following reaction:

$$\underset{\text{starch}}{C_{12}H_{20}O_{10}} + \underset{\text{water}}{H_2O} = \underset{\text{glucose}}{C_6H_{12}O_6} + \underset{\text{dextrose}}{2C_6H_{10}O_5} \quad \text{and}$$

$$\underset{\text{cane sugar}}{C_{12}H_{22}O_{11}} + \underset{\text{water}}{H_2O} = \underset{\text{glucose}}{2C_6H_{12}O_6}$$

With reference to the proteids or albuminoids, the change seems to be almost identical—that is, so far as the appropriation of a molecule of water is concerned.

It now becomes necessary to consider the constitution of these substances. The constitution of a proteid or albuminoid substance is represented by the formula CHNOS. Many varieties are included under this general formula. Most of these compounds are amides, which are acids in which amidogen, NH, has been substituted for OH, hydroxyl. The proteids are divided into seven principal classes, namely: 1, Native albumins; 2, derived albumins; 3, globulin; 4, fibrin; 5, peptones; 6, coagulated proteids; 7, lardacein.

There are certain characteristics which serve in a general way to differentiate these several classes, and there are certain reactions, more or less distinctive, by which the members of each group may be identified. It may be well to state, at this point in our paper, that while this is true in a certain sense, it is also true that, owing to the fact of the uncertain composition of these bodies, we know of no means by which any one of these bodies may be identified with that degree of certainty which characterizes the analysis of other bodies of more definite composition, such as the inorganic compounds.

The digestive ferments which are the active and essential factors in the process of digestion are nitrogenous bodies, and are of an exceedingly complex character, and, so far as my knowledge extends, have never been separated in an absolutely pure state, nor has their exact composition ever been accurately determined. This much, however, we have learned and can prove, that they are capable, under proper conditions, of causing a pronounced change in both the physical and chemical properties of all of the organic elements of nutrition.

The gastric juice, with its hydrochloric acid and its pepsin, acts upon the albuminoids in such a way as to convert them into peptone, a substance capable of diffusing through an animal membrane; while the pancreatic juice, with its trio of ferments, is capable of effecting the same change in an alkaline medium through the agency of the ferment trypsin which it contains, and is also capable of converting starch and cane sugar into glucose and of emulsifying fats by the aid of the ferments amylopsin and steapsin, which are also elements of this secretion.

Now, the sum total of the products of digestion is represented by the blood, which contains serum albumin and certain reconstructive elements which have been elaborated by organs possessing this function. Chief among the constituents of the blood is albumin, which seems to constitute the *pabulum vita essentialis* of the body, and is derived from the proteid elements of food furnished to the digestive system.

If we follow up the changes through which an albuminoid body goes before it becomes serum albumin, we find that the first transformation to which it must submit in the presence of a digestive ferment is the conversion into either acid or alkali albumin, according to the portion of the alimentary tract where it is found.

The second change it undergoes is into peptone or "diffusible albumin," and after absorption it again becomes albumin.

Now, if ordinary egg albumin, coagulated, be boiled with either acid or alkali, it may be rendered soluble, but it cannot be made to pass through an animal membrane by any means that we know of, save by being subjected to the action of one or the other of those complex bodies known as pepsin and pancreatine.

The generally accepted view regarding the composition of peptone is that it is a highly hydrated form of albumin; and inasmuch as an acid media is required for the action of the first-mentioned ferment, and an alkali media for the second, it would seem that the primary step in the conversion of albumin into peptone is effected by one or the other of these agents. It is quite probable that, in either case, the albumin combines chemically with the substance, whether acid or alkali, and an extra molecule or more of water is necessary to the stability of the compound; and this new compound (soluble albumin), being presented to a hydrolytic ferment, is induced to undergo a molecular transposition, which results in the breaking up of the compound, causing a further appropriation of the elements of water and a setting free of the acid or alkali element.

This theory seems to be borne out by the fact that a definite amount of the ferment pepsin—say one grain—is capable of digesting an unlimited amount of albumin, if the digested material be removed and the temperature, degree of acidity, and proper dilution be maintained, and also by the fact that neither acid nor alkali is necessary to the existence of peptone after it is formed, and also by the further fact that a solution of acid albumin will be precipitated by the addition of an alkali or an alkali albumin by an acid.

Among the substances capable of being thus formed into peptone are: albumins (native and derived), the globulins, fibrin and lardacein, and the peptone resulting from the digestion of these different substances always possesses the same properties.

When proteid substances are presented to the digestive secretions they are at once transformed into peptone. The peptone is absorbed, and is immediately changed into albumin.

The question arises, by virtue of what factors or agency is this transformation effected? Can it be due to the influence of the absorbents themselves? It does not seem

[1] Read before the Texas State Medical Association, at Galveston, Tex., May, 1893.

probable, inasmuch as a solution of peptone may be made to pass through an animal membrane without any change whatever in its composition. After having diffused into the vessels it comes immediately into contact with the blood, and naturally we should look for some element of that vital fluid to be the cause of this change. The blood is composed of a liquid and a solid portion. The liquid portion is an albuminous fluid, the serum, while the solid part consists of red and white corpuscles. The fibrin factors are also contained in the blood. It being a well-known fact that the red corpuscles do, by virtue of their containing hæmoglobin, carry oxygen to the tissues of the body, it would not be unreasonable to suppose that they exerted an influence in the production of the phenomenon of transforming peptone into albumin. On account of the fact that the hæmo globin enters into a loose chemical combination with the oxygen, I thought it possible that the transformation might possibly be due to a process of oxidation, and that the oxygen being in such a loose state of combination and yielded up with such facility that it might possibly be appropriated by the peptone. Experiments which I have made, however, lead me to believe that they play no essential part in the change.

In order to demonstrate the possibility of nascent oxygen transforming peptone into albumin, I added a solution of peroxide of hydrogen to a solution of peptone, and boiled the mixture; but no evidence of the presence of albumin could be found in the mixture. I next placed a dializer containing a solution of peptone into a vessel containing a solution of peroxide of hydrogen, and afterward tested for the presence of albumin; but not a trace could be found. Experiments with deoxidizing agents were performed with solutions of peptone; but in no instance could a trace of albumin be obtained.

The only other elements in the blood that might be capable of exercising any influence in the conversion of peptone into albumin are the white corpuscles and the fibrin factors (*i.e.*, fibrinogen, fibrio-plastin, and the fibrin ferments). Since an intimate relation between the white corpuscles and fibrin factors seems to have been proven, it did not seem worth while attempting to consider their possible influence in this direction separately. I proceeded, therefore, to obtain some fresh blood and a fresh solution of peptone. I obtained a solution of peptone by digesting the coagulated albumin of a hard-boiled egg, by means of pepsin and hydrochloric acid, and separated the peptone from any acid albumin that might have been present by means of dialysis. I obtained plasmine from the blood by means of the saturation method with magnesium sulphate. I prepared a solution of plasmine with distilled water, and added a measured volume of this solution to a measured volume of peptone solution. In another tube I placed a volume of distilled water equal to the volume of the peptone solution, and added a volume of the plasmine solution equal to the amount added to the peptone solution, and then placed both tubes in the flame of an alcohol lamp and heated to boiling. A precipitate of albumin occurred in both tubes; but the amount of precipitate was larger in the tube containing the peptone solution than in the tube containing the distilled water and the plasmine. The experiment was repeated many times, frequently with both beef and dog's blood, but in every instance the same result occurred.

Plasmine, as is well known, is a compound substance, being made up of fibrinogen, fibrino-plastin, and fibrin ferment; hence by our experiment, although it seems to prove that plasmine is capable of reconverting peptone into albumin, we do not know whether it be due to one or the other of these agents, or to all three combined.

I will state that I have not been able to precipitate para-globulin from blood serum by the carbonic-acid method, although I have tried several times to do so. I did, however, obtain by the saturation method a substance which reacted with peptone just as plasmine did.

I have obtained from blood serum, by means of the saturation method with magnesium sulphate, a substance possessing a light brown color which was soluble in water and coagulable by heat. A solution of this substance gave the same reactions with a solution of peptone that were obtained with a solution of plasmine, viz., converted it into albumin.

Owing to the impracticability of separating the fibrin factors in the pure state, it is impossible to state which one of them is responsible for the change. There are very many difficulties attending the separation of these elements from the blood: for instance, the difficulty of keeping the blood liquid for a sufficient length of time, and the almost impossibility of washing the precipitate thoroughly on account of its great solubility in water; and last, but not least, the fact of the absence of any means within the range of our knowledge by which we can determine the purity of either one and its freedom from contamination by the others.

While I am strongly of the opinion that some one of what we call the fibrin factors is responsible for or plays a very important part in the conversion of peptone into albumin, I am conscious of the fact that my experiments were exposed to many sources of error. To prove this fact positively it would be necessary to make a quantitative estimation of the peptone and also of the coagulable constituents of the plasmine solution, and at the end of the reaction a quantitative determination of the coagulated albumin would then be necessary for an absolute verification of this theory. These determinations I have not been able to make, owing to the uncertain composition of these bodies and the present state of our knowledge.

Clinical Department.

A CASE OF HOMICIDAL MANIA.

By ERNEST HELM, M.D.,

BELOIT, WIS.

PHYSICIANS are often called upon to listen to strange, humorous, pathetic, or horrible stories; but seldom has it been my lot to hear a more frightful one than a patient related to me last night.

He told it so simply and graphically that I can do no better than give it in his own words.

He is a carpenter, of powerful physique, while his wife is a delicate, slender woman. The events occurred about three years ago and are strictly true, and illustrate to a remarkable degree the wonderful cunning of some insane patients. He said:

"My wife had often acted strange before, but had never attempted violence, so I was totally unprepared for what happened. We had retired as usual, when between 11 and 12 P.M. I was suddenly aroused from sound slumber by violent and repeated blows on the head.

"Frightened, confused, bleeding, I sprang from my bed, and in that hideous darkness I grappled with my unknown assailant. We had a fearful struggle for the mastery, when at last I wrenched a stout club from my opponent's hands and was about to use it with all my force, when my wife laughed and said in her usual tone of voice, 'Ben, I had to do it.'

"Until she spoke I had no doubt but that I was assailed by a burglar or a midnight assassin. On lighting the lamp I found the club was a heavy hickory mallet-handle.

"A physician was called who treated my wounds, though I will bear long scars to my grave.

"Nothing new happened during the rest of the night, and the next night she went to bed as usual, while I kept watch. My head pained so that I could not sleep, and anyway I dared not sleep.

"Early the next night she said, 'I want a drink,' and when I volunteered to get it for her, she savagely told me 'to mind my own business, she would get it herself.' I said, 'All right, suit yourself,' for I made it a point never to cross her, except when absolutely necessary, and then to be firm and unyielding.

"She arose, went to the water-pail in the next room, in plain sight of me, stood there rigidly for a brief time, and then suddenly went out of sight into the pantry. I at once arose to follow, when she laughed and returned to bed. Wondering what her object could be in going to the pantry I determined to investigate when she went to sleep. Soon she became quiet, her breathing deep, and regular, so I feigned sleep by nodding in my chair, closing my eyes, and allowing my paper to fall to the floor. Through my half-closed eyes I watched her: she soon half arose, her eyes gleaming like a snake's, and eyed me intently. When I aroused she dropped back in bed in her former position so quietly and suddenly that I doubted my senses as to whether she had ever stirred. After a while, feeling sure she was asleep, I went out through the kitchen into the pantry, and my blood ran cold when I found two large butcher knives laid out for me. Returning to see if she still slept, I found her apparently as I left her, so I went again to the pantry and took the knives out of doors and threw them away in the grass.

"All this time I heard no sound, and it was impossible for her to see me from the bed or the room where she was.

"Her brother soon came, and as she still slept and I was very tired and in great pain, I arranged for him to watch her, cautioning him not to close his eyes for one instant. I then went upstairs, but the floor had settled so I could not quite shut the door. I dared not go to sleep with an unlocked door, so I took a large stove zinc and noiselessly placed it against the door in such a position that the door could not be opened without knocking the zinc over and thus arousing me. I slept little, but toward morning I fell into a light sleep, but soon awoke, feeling that someone was climbing the stairs. I listened intently and soon knew she was coming. She approached the door, and though it was opened only two inches (and from the inside, so a person on the outside could not see the zinc at all) her slender hand and arm crowded in, grasped the zinc, and noiselessly removed it. I then said, 'What do you want?' She laughed and said she wanted me 'to get up for breakfast.' She then descended the stairs, and forgot to take the large carving-knife she had carried up to use on me. She had laid it down when opening the door. I found her brother had gone to bed and was sound asleep.

"It was now 4 A.M. and quite light. She had had him build the fire and go to bed, while she busied herself getting breakfast. I then went out to secure the knives in the grass. She came to the door, so I pretended to be out to view the beauties of the early morning sky; but she said: 'Oh I brought those knives in an hour ago.' This startled me greatly! How did she know those knives were there? The grass was too long to find them by accident. She could not have seen me from her room or bed when I threw them out, and I am sure she remained in bed.

"Then how did she know the zinc was against my bedroom door? I placed it there noiselessly, and it could not be seen from the outside. She was soon adjudged insane and sent to the hospital for the insane.

"I see her often now, and while sane on many points, and often asking me to take her home, she will never promise not to assault me.

"She only says that she 'cannot bear to have me buried alive, and if she does not kill me I will surely be buried alive.'

"Oh! it was a terrible experience, and her first midnight assault was so deadly and hideous that I shudder whenever I think of it."

This experience is worse than many of the terrible things in fiction, but I can personally vouch for every word of it.

Gastric Ulcer.—Give neither food nor medicine by the mouth, but rely upon rectal alimentation.—DONKIN.

Progress of Medical Science.

The Treatment of Gangrenous Intestine.—In a certain proportion of cases of strangulated hernia the bowel is found in a gangrenous condition, and the treatment of such cases in the past has practically been limited to relieving the constriction and to the creation of an artificial anus. The mortality under these circumstances is very considerable, in fact, the discovery of gangrenous intestine has hitherto been looked upon as an indication of the hopeless nature of the case. Judging from a paper read by Dr. Kendal Franks before the Medical and Chirurgical Society, these cases are not as hopeless as statistics would lead one to infer (*Medical Press*). He urges with some show of reason, basing his conclusion on a tolerably extensive array of statistics, that resection of the gangrenous gut with immediate suture affords the patient a much better chance of recovery. Nor was this conclusion seriously questioned by the experienced surgeons who had assembled to hear what the author had to say on behalf of a procedure that certainly strikes one as severe, considering the usually very depressed condition of such patients. The discussion turned mainly on the question as to whether the operation should be completed on the site of the original wound made for the relief of the femoral or inguinal hernia, or whether, after the preliminary palliative measure, it should be performed through a median abdominal incision made for the express purpose. Opinion on the whole was in favor of the resort to abdominal incision, and this is probably the view that will commend itself to most unprejudiced surgeons. It is evident that the thoroughness of the examination of the gut and the freedom of manipulation could never be the same through such a small aperture as that afforded by the inguinal or the crural canal—apertures, moreover, which cannot be safely enlarged. By this procedure the mortality has been reduced from something like ninety-five to about fifty-six per cent., a brilliant enough achievement considering the very unfavorable circumstances under which it is necessarily undertaken. One point that came out very clearly in the discussion was the impunity with which relatively considerable lengths of gut can be removed. One case was mentioned in which over a yard had been removed, and this without interfering with the recovery of the patient. It is indeed all-important to remove every inch of damaged tissue, otherwise no suture, however perfect, can be relied upon to hold. A very large proportion of the failures after enterectomy are attributable to non-compliance with this salutary rule, and it cannot be too strongly impressed on surgeons that the kind of suture is of far less importance than the fact of its being applied to healthy tissue. There must, of course, always be cases which come under treatment at such a late period that nothing can be done. These "too late" cases are the operator's horror, for they weigh down the statistics with an unduly large proportion of fatalities, although death has really nothing to do with the operation *per se*. Dr. Franks has called attention to a means of rescuing a certain proportion of patients otherwise condemned to inevitable death, and he has succeeded in divesting gangrenous intestine of half its terror.

Catarrhal Fever in Children.—According to Laine (*Medical News*) the diagnosis from the symptomatic fevers is made: 1. From the simple continued fever, or febricula, by the higher range of temperature, its epidemic character, and longer duration. 2. From thermic fever, by the presence of laryngeal cough, and the fact that it occurred both in epidemic form and at all seasons of the year, irrespective of temperature or weather. 3. From typhus or typhoid fever it might be frequently impossible to differentiate, especially during the presence of these diseases in epidemic form. In the typhoid fever of children both diarrhœa and spots are often wanting. The abdominal symptoms are slight, the fever likely to assume

a distinctly remittent type, and on the whole, running a shorter course than in adults. The spleen is, however, always enlarged; the nervous symptoms are prominent; bronchitis is usually present; epistaxis rarely occurs; and the mortality is low. According to Dr. George B. Wood there is an extraordinary susceptibility to the action of cathartics in the disease under consideration. The presence of herpetic eruptions on the lips and face is also said to exclude its existence in children. 4. Relapsing fever, by the absence of enlarged spleen or liver, of jaundice and articular pains. 5. From tuberculous meningitis it might be quite a difficult matter, since cases are mentioned in which, notwithstanding the presence of extensive cerebral disorganization, there were no convulsions or evidences of paralysis. On the other hand, its abrupt commencement, and the absence of strabismus, irregularly in the pupils, arhythmical pulse and respiration, constant and peculiar vomiting, and violent screams, should exclude the existence of meningitis. Only in its more rapid onset and higher range of temperature do the symptoms of acute meningitis differ from those of tuberculous inflammation of the membranes of the brain. 6. From acute general miliary tuberculosis I doubt whether it could be distinguished, except by the usual fatal termination of the latter. 7. From malarial remittent fever, by the absence of chills and sweats, but above all by the careful examination of the blood with a view of determining the presence or absence of Laveran's plasmodium. 8. From yellow fever it would be a difficult matter, especially in countries in which this disease is prevalent all the year round. In fact, Guiteras is authority for the statement that yellow fever in the tropics can only be diagnosticated from the simple continued fevers of children by the fact of the increased mortality from meningitis, dentition, malarial remittent fever, etc., occurring during certain seasons of the year. 9. From central or abortive pneumonias, there should be no doubt in the diagnosis after the first few hours. 10. From catarrhal pneumonia, or broncho-pneumonia, by the change in both the character and frequency of respiration, the absence of all abnormal physical signs in the chest denoting catarrhal fever, and a dry cough out of all proportion to the local symptoms. The advent of catarrhal pneumonia is slow and insidious in children, but we should always be able, no matter at what stage of a prolonged fever, to detect its presence by the physical signs, the increased temperature, or its greater remissions during the day and changes in the character of the cough, which would become looser and more frequent.

Of the treatment of catarrhal continued fever there is little to be said. Antipyretics had little or no effect on the course of the fever, and although quinine was given in large doses, both by the mouth and in suppositories, its effects were, on the whole, disappointing. In fact, more reliance was placed on treating hyperpyrexia in these little patients by tepid baths than on the use of internal antipyretics. The baths not only reduced the temperature, but to a certain extent also relieved the great irritability from which the patients all seemed to suffer.

Retrograde Changes in Trichinæ and their Capsules.—Dr. Langerhans, of Berlin, reports a case of trichinosis in the person of a woman who died in the wards of the Charité Hospital, aged fifty-one years. The parasites were found in enormous numbers, particularly in the diaphragm, in the intercostal muscles, in the muscles of the neck, of the eyes, the tongue, and in both pectoralis major and deltoid muscles. As nearly as could be ascertained, the only time in the life of the patient when the invasion of these parasites could have taken place was in her twentieth year, during the manifestations of a supposed articular rheumatism; from which it may be assumed that they had been present in her person for thirty-one years. A small proportion of the organisms were yet living, the duration of their supposed parasitic existence being the longest on record; but by far the greater number were dead and more or less altered. Inasmuch as the changes of these parasites after their death have received little attention, and references to such changes are infrequent and indefinite, the author has classified the various conditions in which he found these parasitic bodies in this case with such an apparently prolonged duration. In many the capsules were unchanged, the trichinæ dead and calcified, some with their forms preserved, others broken into larger or smaller fragments; about many of the capsules was a variable amount of fat-tissue, especially about the poles, and in some instances there was to be seen, in addition, a round cell deposit, either about the poles or all around the periphery of the capsules. In some cases the unchanged capsules presented an absolutely empty interior, while others, unchanged in size and appearance, were filled with connective tissue, here and there being changed into adipose tissue. There were to be seen, too, degenerated capsules containing fragments of calcified trichinæ, or entirely empty, or filled with fibrous adipose tissue. Some of the appearances were to be regarded simply as atrophied, shrunken, empty, or sclerosed capsules; and here and there there were spots in the tissue which seemed to be the former position of parasites and their capsules, but which no longer showed anything save small patches of connective tissue. From these descriptions it is to be supposed that these parasites, together with their envelopes, are subject to degenerative conditions, and that they eventually and naturally reach a stage of elimination from the body of their host. It is probable that this process of removal is accomplished sometimes, in part, at least, through the agency of a connective-tissue formation; but it is likely that it may also take place without it. The author states that he cannot confirm Müller's belief that the removal of the parasites occurs by a fatty degeneration, or Leukart's, that they are resorbed without having first been calcified. It is probably correct that the parasites undergo this calcification before the capsules do, the latter undergoing this change soon after the death of the parasite, sometimes before the resorption of the trichina is complete, sometimes after its complete removal. The recovery from the invasion of the parasites is not, therefore, complete with the calcification of the trichinæ, but with the total elimination of both the animals and their envelopes.—*International Medical Magazine.*

The Functions of the Gastric Mucous Membrane.—At the Twelfth German Congress of Internal Medicine, Wiesbaden, Von Mering detailed some interesting experiments made to elucidate the absorbent power of the gastric mucosa, the results of which investigations were as follows (*The Boston Medical and Surgical Journal*): The evacuation of the contents of the stomach takes place at intervals by means of the rhythmical opening of the pylorus. A liquid aliment escapes more quickly from the stomach than a compact aliment such as meat or bread, even when strongly impregnated with water. The stomach is an organ of excretion much more than an organ of absorption. It does not absorb water. When water charged with carbonic acid is ingested, the stomach does not absorb the water, but it absorbs largely the CO_2. Alcohol is absorbed in large proportion by the stomach. Sugar, of whatever kind, is absorbed in moderate quantity when in solution in water, and in greater quantity when in alcoholic solution. Dextrine and peptone are absorbed by the stomach, but in less proportion than sugar. The quantity of substances absorbed augments with the degree of concentration of the solution. Chloride of sodium, iodide, and bromide of potassium are absorbed in notable proportion. Conjointly with the absorption of the aforenamed substances, there is produced in the stomach an aqueous secretion, more or less active, whose importance is generally in direct relation with the quantity of substances absorbed. There is an abundant secretion of water in the stomach, even when there is no free HCl secreted. Gastric absorption resembles in many respects the physical process of diffusion (endosmosis and exosmosis). Gastric dil-

atation, in cases of pyloric stenosis, is due not only to the pressure and bulk of the aliments introduced and stagnating in the stomach, but also to the augmentation of volume of the contents of the stomach by reason of the quantity of water furnished to the stomach by the organism (endosmosis) in ratio of the proportions of nutritive substances which penetrate the blood from the gastric cavity (exosmosis). From a therapeutic point of view it is well, then, in cases of gastrectasis to exclude alcoholic beverages, and to advise the ingestion of nutritive substances in a state of concentration, as well as consecutive lavages of the stomach. To combat the thirst, it is better to give lavements of plain water, or salt and water, than to allow the patient to drink water, as the indication is to limit as far as possible the excretion of water by the stomach. Dr. Unverrecht, of Magdeburg, in commenting on the paper of Von Mering, said that he had himself observed that in cases of dilatation of the stomach, water is badly absorbed and the urine scanty, and he has deduced therapeutic conclusions similar to those of Von Mering. In such cases a dry diet, lavage of the stomach, and lavements of a weak solution and common salt, prescribed methodically, not only give real relief, but cause an increase in weight; for in a case where the dilatation was due to carcinoma, he has seen the weight increase five pounds in eight days under the influence of this treatment. Ewald, who was also present, stated that the clinical observation of diseases of the stomach has enabled him to study the various forms of dilatation and their stages. In gastrectasis patients eliminate more water than they ingest, hence the name gastrosaccorrhœa applied to this condition. His experience was largely corroborative of the conclusions reached by Von Mering. The experiments of the latter were made with healthy adult dogs, in which pyloric fistulæ were established.

Aural Vertigo in Children.—Dr. Lannois maintains that aural vertigo may appear in children either as a transitory epiphenomenon or as a manifestation of an acute lesion of the auditory apparatus; recurring, however, at intervals of varying duration, in association with chronic disease of the ear; it is much more rare in children than in adults. He reports four cases. One was in a child of seven that had measles and whooping-cough at two, followed by chronic otitis media. The second case was in a child that had, for eighteen months, suffered with vertigo and vomiting, and that presented cicatricial adhesion between the tympanic membrane and the handle of the malleus. The third case was in a child of seven that had scarlatina two years previously, and thereafter the symptoms of aural vertigo. The fourth case was in a child of eight that had suffered some impairment of hearing after a fall at the age of five, and that presented symptoms of aural vertigo following an attack of influenza. Attention is called to the possibility of mistaking the attacks for those of epilepsy, but the loss of consciousness in the one condition and the occurrence of vomiting in the other should be distinctive. Of sixty deaf-mutes, but six presented vertigo and nausea. Children who still heard a little seemed more liable than those that were entirely deaf.—*Medical News.*

Surgical Intervention in Tumors of the Dura Mater.—Dr. Delagénière has described a case of sarcoma of the dura mater in which, after trephining, extirpation of the tumor, with resection of the dura mater, the patient made a good recovery. He submits the following conclusions: 1. Perforating tumors of the cranium, whatever their nature, have a special form of development. 2. In the majority of cases they originate upon the external surface of the dura, dissect it from the bone, perforate the bone, raise the integument, and finish by perforating it. 3. Anatomically they may be considered as pedunculated, having a base internal, a neck corresponding to the opening in the skull, and a subtegumentary intra-cranial portion. 4. Surgically they are pediculated tumors originating from the dura, and the removal of that portion of dura and the tumor guarantees their total enucleation. 5. To remove them it is necessary to exsect the external portion and sufficient bone to uncover the base: they should then be removed by morcellement, and finally the dura resected, the entire portion upon which the tumor rested being taken away.—*Archives de Chirurgie.*

Destruction of the Pituitary Gland.—In the *Revista sperimentale di Freniatria*, vol. xviii., December 31, 1892, may be found the results of thirty experiments upon dogs and cats in reference to the effect produced by complete destruction of the pituitary body. Complete destruction of the gland proves rapidly fatal. Partial destruction is also fatal. But in this instance the process of dissolution is sufficiently slow in some cases to be carefully followed. There is a marked change in the character of the animal due to the profound prostration that is present. There is muscular weakness, together with clonico-tonic convulsions. Difficulty of breathing is noted; anorexia alternating with boulemia; polyuria, urine watery and very alkaline; polydipsia, low temperature, and emaciation out of all proportion to the anorexia. All these conditions are improved by injections of extracts of the pituitary gland. The inference is that the destruction of this gland is followed by the formation and the accumulation within the organism of some special toxic substance.

Hæmatocele Simulating Appendicitis.—At a recent meeting of the Clinical Society of London (*The Lancet*) Mr. Barker described a case of subserous uterine hæmatocele in a girl, aged eleven, simulating acute appendicitis; laparotomy was performed with success. Taking the view that the child was suffering from the latter disease in a most typical form, Mr. Barker opened the abdomen in the right linea semilunaris, over the cæcum, but found the latter and the vermiform appendix perfectly normal. Some turbid, brownish serum, without lymph, flowed from the direction of the pelvis, and feeling in this direction the right Fallopian tube and ovary were found to be swollen and twisted, and when brought into view were seen to be quite black from blood effused under their serous coats. Tracing this effusion inward, it was found to expand into a large subserous hæmatocele behind the uterus. This tumor nearly filled the pelvis and corresponded with the swelling felt per rectum before the operation. This brownish serum in the pelvis had probably transuded from it: it was quite smooth on the surface and was inflamed. The condition was now recognized, and it was felt that no attempt should be made to remove the blood tumor. The serum was therefore sponged out and the abdomen was closed in the usual manner. The child made an uninterrupted recovery. On leaving hospital on the thirty-first day after the commencement of the last attack, the hæmatocele, as felt from the rectum and vagina, had diminished in size. The patient was watched for a month or two subsequently, but there was no return of the symptoms suggesting any attempt at very early menstruation. The case was recorded as possessing pathological, clinical, and surgical interest, and as being probably a rarity: Mr. Barker was unable to find any account of a pelvic hæmatocele in a girl so young as the patient in question.

In discussing this case, Mr. Treves dwelt upon the difficulties referable to the anatomical site in diagnosing appendicitis, and cited two cases illustrating this. One was that of a boy who exhibited all the classical signs and symptoms of intussusception, but on opening the abdomen to relieve the obstruction, the condition was found to depend upon gangrene of the vermiform appendix. This was removed and the patient recovered completely. The other case was diagnosed, after consultation between two medical men, as enteric fever, and was sent to the Fever Hospital, being subsequently transferred from there to the London Hospital, where the abdomen was opened in due course and the appendix found glued by inflammatory adhesions to the ileum opposite a Peyer's patch, which may have accounted in part for the close simulation to typhoid fever. After removal of the appendix this case also recovered.

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THE HYPODERMATIC TREATMENT OF SYPHILIS.

DR. J. WILLIAM WHITE, of Philadelphia, has girded himself to the task of settling the question of the value of the hypodermatic method in the treatment of syphilis. He has discharged his work well, and has, we should judge, established the position of this mode of practice very definitely (*University Medical Magazine*, May and June, 1893). After describing the various preparations recommended and giving the supposed indications and the alleged results, he proceeds to quote the experience of a large number of authorities upon the subject of hypodermatic injections. These authorities are almost uniformly against the practice. Some of the Germans (Kaposi, Neumann) advise them only as a last resort, and consider them below inunctions in value.

Fournier says: "My opinion is that it is not a good treatment. The injections are painful, they interfere with the patient's avocation, they necessitate frequently repeated visits. Above all, the method is not practicable. In private practice patients will not tolerate it. In hospital practice it is possible, but note the result. Patients leave the Du Midi and Lourcine, where this treatment is employed, and flock to the St. Louis, where they know they will not receive it."

In England, Hutchinson, who is *facile princeps* the leader of the British syphilographers, says: "Hypodermic injection has come but little into employment in English practice, nor does it appear to increase in favor with those continental surgeons who at one time thought highest of it."

Dr. L. B. Bangs, of this city, says: "I instituted some experiments a few years ago, in private practice and in my service at Charity Hospital, which satisfied me that the hypodermatic method of treating syphilis was so rarely useful as to be valueless. Moreover, the claim that it 'cures syphilis in a much shorter period,' etc., will not hold, for in my opinion it takes just about so long to 'cure' the disease, whatever may be the method of treatment employed. The effect of hydrargyrum upon a symptom can be obtained by the other methods with no pain and with less risk than by the hypodermatic method."

Nearly all the prominent specialists in this country concur in this opinion.

Dr. White thinks from the evidence collected that it is safe to conclude—

1. The hypodermatic treatment of syphilis has not as yet shown results which warrant its adoption as a routine method to the exclusion of, or in preference to, other methods, but, on the contrary, has some apparently insuperable disadvantages, and even dangers, which render it improbable that it ever will be so adopted.

2. The circumstances under which hypodermatic medication should be employed may be summarized as follows: *a*, Those cases in which other methods of treatment have been tried and failed; *b*, those cases in which, owing to idiosyncrasy or intercurrent disease, the skin and the digestive tract cannot be used for the introduction of mercury; *c*, those cases in which, owing to grave and advancing lesions, rapid mercurialization is absolutely necessary; *d*, those cases in which obstinate localized lesions can be most directly reached by this plan: *e*, possibly those cases referred to by Jullien, in which early differentiation between syphilis and malignant disease, or tubercular ulceration, is extremely important, should be included in this list; I certainly feel inclined to employ the method in all doubtful cases which admit of it, particularly in those conditions of the tongue which often leave the surgeon for a considerable time in doubt as to their exact nature; anything which promises to shorten this period of doubt, by rendering the therapeutic test more rapid and more certain, would be of great advantage; I should, however, in such instances, feel obliged to use potassium iodide by the mouth at the same time: *f*, a theoretical possibility of the employment of mercury hypodermatically has suggested itself to me, but I have not as yet actually employed it. It may be that its use by this method will aid in shortening the period of doubt which often intervenes between the appearance of the primary sore and the development of general adenopathy, or of the exanthemata. If in the presence of a sore of uncertain character the employment of mercury hypodermatically resulted in rapid cicatrization, no local treatment being employed other than cleanliness, it might occasionally throw light upon the case without being open to all the objections which attend the systematic and slower administration of mercury by the mouth. It is possible that the idea is worth a trial in exceptional cases, but I do not think it should be adopted as a routine practice.

3. As to the choice between the two great classes of mercurials, the soluble salts are to be preferred to the insoluble in the large majority of cases as more exact in the matter of dosage and much less dangerous and less likely to be followed by local disturbances. They are always to be used when there is need for rapid mercurialization.

The insoluble salts should probably be reserved for those cases in which frequent visits to the surgeon are impossible, and in which no contra-indications exist. In cases of defective kidneys, diabetes, profound anæmia, marked atheroma, great debility, etc., such methods are dangerous, and the case, even if urgent, will probably do better under some other form of treatment.

4. Finally, as to the special preparation to be employed: Among the soluble salts the bichloride is probably to be preferred. The results from its use are not strikingly different from those obtained from the other compounds of this class, but its stability and great solubility and its germicidal qualities seem to warrant its selection. The disadvantage is the pain which it causes, but the evidence in this direction shows that in the hands of impartial inves-

tigators not responsible for the introduction of the particular substance employed each of the salts on the list produces a considerable amount of pain and a not inconsiderable number of accidents or complications. Probably the bichloride is freer from objectionable features in respect especially to the production of suppuration than any of the salts of mercury.

Dr. White seems to have put an effectual quietus on the fad of treating syphilis by hypodermatic injections.

THE MOVEMENT OF THE MEDICAL POPULATION OF NEW YORK.

"The Medical Register" for 1893–94 contains a list of 2,550 physicians practising in this city, and 3,539 in the State, exclusive of New York and Brooklyn. The lists of previous years, respectively, are as follows for the city and State:

	City.	State.
1893–94	2,550	3,539
1892–93	2,435	3,394
1891–92	2,325	3,165
1890–91	2,265	3,161
1889–90	2,085	3,073
1885–86	1,902	2,775
1884–85	1,789	2,685

The New York City list is admittedly not complete, there being about nine hundred other physicians of various grades and kinds. The figures show an increase of physicians in this city during the past nine years of 761, and in the State, outside of New York and Brooklyn, of 854. The ratio in this city has been about one hundred more proportionately than in the rest of the State. The population in the past nine years has increased just one-half a million, *i.e.*, from 1,356,958 to 1,827,396.

To provide for this half million increase there has been an increase of 761 in the regular physicians, besides a good many others of not sufficient standing to get into the Green Book. This means one new physician for every 650 new arrivals, and as thousands of new arrivals are poor immigrants, the supply is quite sufficient.

On the whole, however, the figures quoted do not show any extraordinary increase in the supply of medical men. The enormous difficulty and labor required to secure a remunerative practice in New York are facts but too well known, and they naturally deter many from undertaking the task.

The annual loss by death from the city list is over forty; the number that move away or give up practice is not known, but in 1889 it was 70; the average annual increment over and above losses is 93; so that it may be said that between 200 and 250 new practitioners establish themselves in this town annually. We wish them all success.

THE BEST PREPARATIONS OF IRON.

There is no drug in common use whose preparations are so numerous as are those of iron. Professional reputations and the fortunes of commercial institutions are linked with one or other of these. An interesting story could be told of the "fashion in iron" or "ferric fads." The popularity of Bland's pills came in with Niemeyer's text-book, and this preparation held sway for a long time. It is still in good repute. Dialyzed iron was for several years considered a most potent and palatable promoter of corpuscular richness; the albuminates, the malates, pomates, formates, and peptonates have all been warmly recommended. The Flint tablet, the syrup, various modified tinctures and essences have been the vogue for a longer or shorter time.

If one were to apply the rule which generally holds in therapeutics, viz., that when many remedies are warmly recommended for the same malady all are equally good or bad, we should have to conclude that iron was always iron, and that the kind of preparation employed made little difference.

With the proper instruments of precision, however, we can at the present time make a surer diagnosis and watch more closely the effects of remedies. Dr. Andrew Smart, of Edinburgh, has brought such methods into use in studying the value of the different iron salts (*The Lancet*, February 25, 1893), and he has reached some conclusions which ought to possess more than ordinary value.

Dr. Smart's first conclusion is a somewhat surprising one. It is to the effect that of all the preparations of iron the sulphate is the best. This applies not only to cases of anæmia, but also to those of chlorosis. In atonic dyspepsia with deficiency of hydrochloric acid ten or fifteen drops of this acid should be given before each meal, and the iron after it. In cases with acid dyspepsia with pyrosis, on the other hand, bicarbonate of soda should be given before eating. Next to the sulphate, preparations of the carbonate of iron were most successful given in doses of twenty or thirty grains of the saccharated powder thrice daily.

Third on the list stands the syrup of the protochloride. A drachm of this preparation contains seven grains of the salt. It is not tolerated by the stomach as well as the sulphate or carbonate. The phosphate and protoxide were somewhat uncertain in their action.

Arsenic, when given alone, did not seem to have any appreciable effect on the anæmia, but combined with the sulphate of iron it increased the activity of the latter drug. In pernicious anæmia, however, this statement does not hold good, since here arsenic distinctly increases the richness of the blood in corpuscular elements.

THE REPORT ON THE REVISION OF THE CODE.

The Committee on the Code of Ethics of the American Medical Association presented a majority and minority report, on neither of which was action taken. The majority report advised leaving out from the Code that part which deals with the obligations of the public to physicians; it recommends that physicians be permitted to patent mechanical devices and to consult with all legalized practitioners. It expresses its belief in the need of a Code, and it defines very casuistically the nature of a consultation.

The minority report takes more conservative ground and recommends that the Code stand, practically, as it is.

We doubt if any good will come from continuing to discuss these questions. We prefer to teach the gospel of righteousness and let the details be determined by the individual conscience. The individual conscience, we may add, is setting strongly toward consulting with all qualified practitioners who enjoy a reputation for honesty among their fellow-men.

News of the Week.

Does the Kidney Move? — Mr. Henry Norris, in a lecture on "Some Changes in Surgical Opinion, Regarding Diseases of Urinary Organs," says:

"Floating or movable kidney is an entity about which the most divergent views have been and still are held. A few years ago it was gravely asserted by a distinguished surgeon that movable kidney was a myth; that it was a thing of no pathological significance; that the literature of the subject was based not on post-mortem experience but on clinical impressions which were fallacious; that the cases of supposed mobile kidney were in reality tumors of other organs—*e.g.*, the gall-bladder, ovarian cystomata, and diseases of the head of the pancreas; that in the few cases of mobile kidney recorded as having been observed at post-mortem examinations the condition had not been suspected during life; and that a righteous scepticism ought to be entertained as to movable kidney being the cause of real suffering. Somewhat similar doubts were suggested, if not actually expressed, at a recent meeting of the Royal Medical and Chirurgical Society, when Mr. Bruce Clarke read a paper on 'Acute Renal Dislocation.' Two of the speakers referred to the rarity of movable kidney in the post-mortem room, and one stated that though he had made four thousand post-mortem examinations he could remember but two cases of movable kidney. A third speaker, who has contributed to our knowledge of actual cases of the sort, attached but little importance to the clinical effects of movable kidney, for he said: 'Women who are the subjects of this condition suffer from a little occasional dragging pain in the side, but otherwise usually have no symptoms.' Many, too, consider that the wearing of a belt is all that is requisite to relieve what little inconvenience is caused, that nephrorrhaphy ought not to be performed, and never succeeds; and lately it has been prognosticated that in a few years we must expect to hear of renal calculi having developed upon the sutures used to transfix the kidney in this operation.

"On the other hand, the opinion is held that movable kidney is an every-day experience in practice, that a very large minority of women are thus constituted, and that it is by no means uncommon in men. I hear of patients being told on no account to submit to nephrorrhaphy—firstly, because it is very dangerous, and, secondly, because it is unnecessary for a condition with which twenty per cent. of the human race pass through life. In 1888, Dr. Lindner, a German physician, brought out a work on the 'Anatomy, Etiology, and Diagnosis of Floating Kidney in Women,' in which he boldly declares that this condition is the most frequent anomaly in the female, that one woman out of every five or six is the subject of it, and that he is prepared to face the most violent opposition in support of his assertions. Laudau, Skorezewsky, Roberts, Newman, and many others might be quoted as authorities on the question of movable kidney. Surely on a matter of fact of this kind it is time that the professional mind arrived at a definite and decisive conclusion. There is abundant evidence existing in support of it, and for the last two hundred years at least, authorities of the highest repute have recorded well-authenticated cases, while the report of the committee of the Pathological Society of London, in 1876, ought to have placed the matter beyond dispute."

Doing Away with the Communion Cup.—A Methodist church, in Ohio, has voted to substitute for the sacramental cup used at communion, a sufficient number of individual glasses.

Physicians Stand by Each Other. — Staten Island seems to be a place where brotherly love reigns. Some time ago the physicians of the Smith Infirmary at New Brighton resigned on account of the action of the trustees. Recently the trustees have offered to reinstate three out of the five visiting physicians; the offer was declined because it did not include all of their number.

Pan-American Medical Congress.—The following is the full text of the report of the Committee on Permanent Organization of the Pan-American Medical Congress to the American Medical Association, Milwaukee, Wis., June 6, 1893: "Your committee appointed at Washington to effect a permanent organization of an inter-continental American Medical Congress, begs leave to submit its final report as follows: An organization has been effected under the style and title of the Pan-American Medical Congress, to be held at the City of Washington, D. C., September 5, 6, 7, and 8, A.D. 1893, under the Presidency of Professor William Pepper, M.D., LL.D., of Philadelphia. The details of the organization are set forth in the published preliminary announcement of the Congress, copies of which are respectfully submitted herewith, in both English and Spanish, as a part of this report. Since the publication of this preliminary announcement an organization has been effected in Paraguay. Your committee is therefore pleased to state that an organization of the Pan-American Medical Congress exists in every State and Territory of the United States, and in every remaining country and colony of the Americas, including the West Indies and Hawaii. A provision has been adopted since the foregoing publication whereby every medical society—national, colonial, and local—has been made a constituent organization of the Congress. The committee begs leave to report further that the organization which has been effected as above, and which, by the authority you have conferred upon it, has been and is already very actively engaged in carrying out the practical ends of the Congress. The Senate and House of Representatives at the first session of the last Congress adopted a joint resolution, authorizing the President to extend an invitation to the Governments of the Western Hemisphere to send official delegates to the meeting, and to appoint similar delegates on behalf of our own Government. This official invitation has been issued through the Department of State, and all replies so far received have been in the nature of acceptances. The President has indicated that the Government of the United States will be represented at the Congress by six delegates. At the last meeting of the Executive Committee of the Congress a resolution was adopted directing that in view of the Columbian Exercises in progress in America this year, and in view of the relations which have become intimate between the United States and Spain, that the Government of the latter country be requested to send delegates to the Congress. It was thought that the exceptional relations of amity existing between the two countries would warrant a course

which has been avoided with regard to all other European countries, out of deference to the interests of the International Congress which is to meet in Rome. The National Congress at its last session appropriated $15,000 for the purposes of entertainment of the meeting. The President of the United States has consented to open the Congress in person, and to extend the courtesy of a reception at the White House to delegates and their families. A special feature of the Congress will be the proceedings of the sections on hygiene, climatology, and demography, and on marine and hygiene quarantine. The proceedings of these sections will be largely of the nature of a sanitary conference with particular reference to practical questions of public health and of imminent importance. With this object in view, every municipality of the three Americas, including the West Indies and Hawaii, has been invited to send an official delegate, and a very large number of acceptances have already been received. The titles of several hundred papers, accompanied in many instances with abstracts, have already been received from representative medical writers in the English, Latin, French, and Portuguese countries. This, of itself, assures the scientific success of the Congress. Invitations have been extended to representative European scientists to be the guests of the Congress, and a number of acceptances have been received. In conclusion, your committee begs leave to express its appreciation of the spontaneous response to its appeal for funds in the form of advance registration fees from the public-spirited representatives of our profession in America. Let it be remembered, no registration fees will be accepted from members of the Congress residing outside the United States. Although money has been realized from advanced registrations in amount sufficient to pay some of the preliminary expense of organization, a still larger sum is needed with which to meet accumulated obligations. It should be held in mind that the Congressional appropriation, meagre as it is, will be available only for purposes of entertainment at the time of the meeting, and that the expense involved in publication, correspondence, and clerical work is necessarily very heavy and must be met at once. The members of the profession are therefore again urgently requested to register at once by paying the fee ($10) to the treasurer, Dr. A. M. Owen, Evansville, Ind. Those who thus become members of the Congress, but who may be prevented from attending the meeting, will receive a set of the Transactions, which, of themselves, promise to be worth more than the amount of the registration fee. In submitting this, its final report, your committee begs leave to thank the Association and its executive officers for cordial support, and the medical press for its energetic and efficient aid in promoting this earnest movement for the unification of the medical profession of all the Americas. Respectfully submitted on behalf of the committee, CHARLES A. L. REED, Chairman."

Gifts to Harvard Medical School.—Dr. Henry W. Williams, for many years Professor of Ophthalmology in the Medical Department of Harvard University, has promised the medical faculty $25,000 for the endowment of a full professorship of ophthalmology. The Departments of Physiology and Pathology have received a gift of $10,000 from Miss E. Ellis.

The Medical Department of the Army.—Surgeon-General Sternberg has decided upon the establishment of a school for post-graduate instruction to the newly appointed officers of the Medical Corps of the Army. The course of instruction will be given in the Army Medical Museum in Washington, and will be of four months' duration. It will be conducted by four of the senior medical officers stationed in the capital. The general order providing for the establishmemt of the army medical school, issued by Adjutant-General Williams, is as follows: By direction of the Secretary of War, upon the recommendation of the Surgeon-General of the Army, an army medical school will be established in the city of Washington for the purpose of instructing approved candidates for admission to the Medical Corps of the Army in their duties as medical officers. The course of instruction will be for four months, and will be given annually at the Army Medical Museum in Washington City, commencing on November 1st. Four professors will be selected from among the senior medical officers of the army stationed in or near the City of Washington, and as many associate professors as may be required to give practical laboratory instruction in the methods of sanitary analyses, microscopical technique, clinical microscopy, bacteriology, urine analysis, etc. The faculty of the Army Medical School will consist of: 1. A president of the faculty, who shall be responsible for the discipline of the school, and who will deliver a course of lectures upon the duties of medical officers in war and peace (including property responsibility, examination of recruits, certificates of disability, reports, rights and privileges, customs of service, etc.). 2. A professor of military surgery (including the care and transportation of wounded). 3. A professor of military hygiene (including practical instruction in the examination of air, water, food, and clothing from a sanitary point of view). 4. A professor of clinical and sanitary microscopy (including bacteriology and urinology).

The Surgeon-General has also determined upon a change in the system of assigning medical officers for duty as attending surgeons to officers and their families in New York, Boston, Chicago, Philadelphia, Baltimore, San Francisco, and St. Louis. The custom heretofore has been to give these details of three or four years to the older medical officers of the army, but it is now intended to detail medical officers who have only recently attained the rank of captain. The tour of duty will last only one year. By this system the medical officer selected will be enabled to become familiar with the practice of the leading physicians and surgeons in this country, and to attend medical lectures and meetings of medical societies. The experience and observation will fit them the better for their second examination, which is required by law before they can be promoted to majorities.

The Summer Corps of the Board of Health began work on July 5th. The corps is composed of fifty physicians, each one having charge of a district in which he is expected to visit and inspect every tenement-house, reporting on its sanitary condition, and prescribing for the sick poor who may be unable to pay for medical attendance.

An Autograph of Hahnemann.—At a recent sale of a large collection of dramatic literature, Americana, etc., in this city, a framed autograph letter, written and signed

by Dr. Samuel Hahnemann, the founder of homœopathy, was disposed of. The letter was written at Paris, in 1841, when Hahnemann was eighty-five years old, and its subject was an inscription on a tablet which was to be placed on the house in Meissen, where he was born in 1755. It was sold for $20.

The French Association for the Advancement of Science will meet this year at Besançon, on August 3d, and will continue in session one week. The president of the Association is M. Bouchard. The work of the Association is distributed through seventeen sections.

A Hospital Ship on the Coast of Labrador.—The mission ship Albert, despatched by the London Mission to Deep Sea Fishermen, for work among the needy and sick fishermen on the coast of Labrador, has arrived at St. John's, N. F. Dr. Grenfell and two other medical men were sent in the ship, as were also two nurses. Two hospitals on the coast have been built by wealthy St. John's merchants, and one of the doctors will be in charge of each. The ship with the other doctor will cruise up and down the coast. The Albert has a steam launch, presented by two English gentlemen, which will be of great use along the coast, and her cargo of supplies, most of it contributed by wealthy English people will be distributed gratuitously among the needy fishermen. The work will close in October.

Dr. Benjamin A. Fordyce, of Union Springs, died June 3d, aged seventy years and four months. He had naturally a good constitution, and had always enjoyed excellent health, attending to the duties of his profession until attacked by his last illness, a severe form of typho-malarial fever. He commenced the practice of his profession in 1844, after attending Geneva Medical College. During the Civil War, he was for several years Assistant Surgeon in the One Hundred and Sixtieth Regiment, New York Volunteers. After the war he removed from Venice to Union Springs, where he settled permanently. He was the oldest member of the Cayuga County Medical Society, in respect to years of practice, having joined in 1844. He was at one time president of the New York State Medical Association, and was a member of the Central New York Association of the American Medical Association, and at the time of his death was president of the Cayuga County Protective Medical Association. He was a High Priest of the Masonic Chapter for several years. He enjoyed the confidence and esteem of all who knew him. He married Emeline Slocum, in 1845, His wife and three children survive him.

The American Medical Association will hold its next meeting in San Francisco in the spring of 1894.

Dr. William H. Broadbent, who attended the Duke of York, during an attack of typhoid fever some time ago, has just been created a baronet by the Queen, in honor of her grandson's wedding.

Cholera in France.—There were 704 deaths from cholera in the southern part of France, during the month of June; 138 of which were in Marseilles, 53 in Cette, and 51 in Toulon.

The American Neurological Association will hold its next annual meeting at Long Branch instead of Saratoga, as was first announced. The sessions will take place on July 25, 26, and 27, 1893. The following is the preliminary programme: "The Diagnosis of General Paresis," by Dr. L. C. Gray, of New York; "The Genesis of Hallucination, Illusion, and Delusion," by Dr. H. A. Tomlinson, of St. Peter, Minn.; "A Study of the Temperature in Twenty-five Cases of General Paralysis of the Insane," by Dr. Frederick Peterson, of New York; "Observations on a Case of Myxœdema," by Dr. William C. Krauss, of Buffalo, N. Y.; "Etiological Significance of Heterogeneous Personality," by Dr. Smith Baker, of Utica, N. Y.; "Tumor Involving the Angular Gyrus," by Dr. G. L. Walton, of Boston, Mass.; "A Case of Acromegaly, with Autopsy," by Dr. C. L. Dana, of New York; "The Anatomical Changes in the Spinal Cord in an Old Case of Infantile Paralysis—A Contribution to the Cell Grouping in the Cervical Cord," by Dr. Joseph Collins, of New York; "Some Observations on the Relation of Chorea to Rheumatism, with the Narration of a Case," by Dr. C. Eugene Riggs, of St. Paul, Minn.; "Thyroidectomy in the Treatment of Graves's Disease," by Dr. J. J. Putnam, of Boston, Mass.; "Experiences in the Use of Testiculine and Cerebrine," by Dr. J. J. Putnam, of Boston, Mass.; "Tabes and Syphilis," by Dr. B. Sachs, of New York; "The Paroccipital Fissure," by Dr. B. G. Wilder, of Ithaca, N. Y.; "Report of a Case of Infectious Endocarditis, with General Septicæmia, Complicated with Multiple Neuritis," by Dr. James H. Lloyd and Dr. David Reisman, of Philadelphia, Pa.; "Progressive Muscular Atrophy—The Pathological Report of Two Cases, with the Exhibition of Microscopical Specimens," of Dr. G. M. Hammond, of New York; "Lesion of the Thalamus and Internal Capsule in a Case of Hemianæsthesia, with Notes of Autopsy," by Dr. Charles K. Mills, of Philadelphia, Pa.; "A Report of Two Cases of Friedreich's Ataxia," by Dr. Frank R. Fry, of St. Louis, Mo.; "Exhibition of a Brain from a Case of Mixed Aphasia, with Lesion Confined to Broca's Region," by Dr. George G. Preston, of Baltimore, Md.; "Peripheral Paralysis after Surgical Operations," by Dr. V. P. Gibney, of New York; "A Case of Chorea of Sydenham, with Autopsy," by Dr. C. L. Dana, of New York; "A New Form of Pedometer," by Dr. William C. Krauss, of Buffalo, N. Y.

Scarlet Fever in London in 1892.—According to the Annual Report of the Chairman of the Metropolitan Asylums Board of London, the total number of scarlet fever patients received during the year 1892 amounted to 13,093, and exceeded by 6,556 the largest number admitted during any previous year. The greatest number of patients suffering from all classes of fever and diphtheria under treatment in the hospitals at any one time was 4,389.

Rabies in India.—In a number of cases of hydrophobia recently occurring in India, so says the *Indian Medical Record*, the period of incubation has been found to be almost invariably three months. The disease has been noted especially in Calcutta, Bombay, and Benares, and stringent police measures are being enforced for the destruction of all stray dogs.

The Ice Consumed in Paris has been found to contain a number of pathogenic microbes, among others the bacillus of typhoid fever, and the Conseil d'Hygiene has advised the enforcement of measures looking to a supply of ice from purer sources.

Society Reports.

American Medical Association.

Forty-fourth Annual Meeting, held in Milwaukee, Wis., June 6, 7, 8, and 9, 1893.

(Special Report by Telegraph to the MEDICAL RECORD.)

(Continued from p. 27.)

SECTION IN OBSTETRICS AND DISEASES OF WOMEN.

THIRD DAY, THURSDAY, JUNE 8TH.

A New Operation for Uterine Fibroids, with Report of Cases.—DR. FRANKLIN H. MARTIN made a second supplementary report on his new operation of vaginal ligation of a portion of the broad ligament of the uterus for uterine tumors. The operation consists in the ligation from the vagina of more or less of the broad ligament with its vessels and nerves, the extent of the ligation depending upon the result sought, from a simple ligation of the base of the ligament, including the uterine artery and branches of both sides, without opening the peritoneum, to a complete ligation of the ligament of one side, including both uterine and ovarian arteries, with partial ligation of the opposite ligament, without opening the peritoneal cavity, if possible, but doing so if necessary.

The doctor reported five cases. Two of these were reported in his first report of the operation. The result in the five operations were given up to date.

CASE I., in which the operation was incomplete on account of insufficient ligation of one ligament, has not resulted as favorably as one could wish. Tumor not materially affected. Hemorrhages ceased temporarily. Subsequent reports show hemorrhage increasing again. The patient thinks that the tumor has increased somewhat.

CASE II.—Patient had large tumor, eight by five inches in diameter, and suffered severe pain and constant hemorrhage for several years. In a state of complete invalidism. Patient left hospital on the eighth day. She was operated on December 3, 1892. I have seen this patient every month since the operation was performed. The hemorrhage has ceased completely. There has been very scanty flow at the menstrual period. All pain has ceased. The uterus had materially reduced in size at the end of one month. At the end of three months it was but little larger than a normal uterus. The patient's health had improved so that, from a state of almost complete invalidism she was transformed into a comparatively strong and healthy woman. The improvement was progressive from the day of the operation.

CASE III.—Married woman of about thirty, no children, with a bleeding interstitial fibroid of the uterus, enlarging that organ to diameter of four by three inches. The tumor was so comparatively small that I decided to ligate but one side. The patient was out of bed in ten days. The results have not been ideal. The flow has been decreased in quantity. One month after the operation, at the time I saw her last, there had been no appreciable change in the uterus. She writes, four months after the operation, the flow is about one-third the time of duration, and one-third the amount that it was formerly. Otherwise not improved.

CASE IV.—Mrs. S——, aged thirty-six. Menstruation has always been profuse and has been constantly increasing since the age of twenty. Last five years, till thirteen months ago, has had profuse flowing, twenty-one days in each month, while the last thirteen months it has been constant and exhaustive. Patient confined to her bed. Suffers severe pain much of the time. December 19th, in the presence of the post-graduate class, I made an exploratory for the purpose of removing a uterine tumor if possible, or of removing the appendages. I was unable to accomplish either operation on account of universal intestinal adhesions over surface of the growth. The abdomen was closed, and when the patient was sufficiently recovered to stand another operation, I performed my operation on her. This was January 5, 1893. On account of the comparatively large sized tumor, filling as it did the pelvis almost completely, and extending to the umbilicus above, the operation was a difficult one. I succeeded, however, after considerable dissecting, in including the entire base of each ligament, with its principal blood-channel and branches. The flowing ceased immediately and the patient was relieved of her drain for over two weeks. She then had a few days' flowing which resembled an ordinary menstruation. She has rapidly and steadily improved since that time. She has menstruated regularly, but scantily and without pain. She can at this time, five months after the operation, attend to her duties as a housewife, and considers herself cured. The tumor has reduced in size until it is no longer noticeable as a deformity, and so that the patient herself is no longer conscious of its presence.

CASE V.—Married: age, thirty. When referred to me by Dr. Geer, of Chicago, there had been constant hemorrhage for three months. Diagnosis, fibroid tumor about size of four months' pregnancy. Patient operated on January 8, 1893. Had a little subsequent temperature; and one month after ligature from left broad ligament came away from becoming infected from the vagina. Four months after operation the menstruation only lasted two days, very scanty, no pain. Fibroid diminished in size until uterus is about normal. Patient claims that she is cured.

Dr. Martin predicted an important future for this operation.

Prolapse of the Female Pelvic Organs.—DR. HENRY PARKER NEWMAN, of Chicago, said it was his desire in this paper to call attention briefly to prolapse of the female genital organs, with particular reference to their hernial nature, regarding them as having a similar etiology and the same pathological significance as hernia in other situations, and amenable to analogous lines of treatment.

Like cephalic, thoracic, and abdominal hernia, the etiology of pelvic hernia comprised such predisposing causes as defective development, including congenital malformations and inherited tendencies, depraved muscular tone through debilitating disease, and trauma; while the majority of these cases were generally attributed to traumatism, this might often in itself be the result of defective development, and inherited or acquired weaknesses or malformations.

Prophylaxis in the formative stage of puberty, as well as in pregnancy and labor, was of the utmost importance. Operations upon the pelvic floor or vaginal walls, while indispensable in their place, could not be relied upon alone to cure all herniæ of pelvic viscera. The ideal treatment was to be found in the combination of operations for repair and those for accessory support from above, and these might all be accomplished at the same sitting, saving the delay and annoyance of repeated operations.

Cocaine—Its Uses in Gynecology.—DR. WILLIAM H. HUMISTON, of Cleveland, O., read the paper. Having had five years' experience in the use of cocaine in gynecological operations, he felt better prepared to eulogize its merits now than he could do two years ago, when he first brought the subject before the Association in Washington. He had then stated that the only annoying symptom that frequently arose was the shortness of breath and the anxiety connected with it; this he had been able to obviate by the use of strychnia or tincture of nux vomica, one-thirtieth grain of former, or fifteen minims of the latter, administered with one-half ounce of whiskey thirty minutes before operation.

He performed the following operations with no other anæsthetic than cocaine, viz., dilating, curetting, trachelorrhaphy, anterior and posterior colporrhaphy, and perineorrhaphy, frequently making two of these operations at one sitting. The essentials of the methods were: asepsis, pure cocaine, quantity, and how used. He prepared the cocaine in two strengths, four and ten per cent., the first for hypodermic use and the latter for intra-uterine injec-

tion preceding curetting. The quantity at one sitting varied from three-quarters to two grains.

Discussion on the four preceding papers was then taken up.

Dr. Carsten thought if one was going to use strychnia he should use strychnia, not nux vomica. The latter was of varying strength.

Dr. Mitchell, of Cincinnati, had used cocaine in minor gynecological operations, but found it unsatisfactory, producing alarming symptoms.

Dr. C. P. Reed was also afraid of cocaine.

Dr. Mordier, of Kansas City, thought Dr. Martin's operation would be useful, but only in a limited class of cases. He said the circulation was only in part to blame for symptoms in fibroids, the nerves should be considered. Dr. Martin replied to this criticism that his ligature included nerves as well as arteries.

Dr. Griggs, of Buffalo, had reduced fibroids by hypodermic injection of ergot, but he would now try Martin's method.

Dr. K. W. Hoff had, in one case of uterine fibroid as large as a pitcher, injected daily two to three grains of ergotine over the region of the broad ligaments, and in seventy-five days the tumor, also a nævus of the size of the hand, had quite disappeared.

Dr. Humiston thought pelvic hernia due to subinvolution of the uterus following laceration of the cervix, the perineum being only of secondary importance in supporting the uterus.

Ectopic Pregnancy: Its Comparative Symptomatology and Treatment.—Dr. Joseph Hoffman, of Philadelphia, read on this subject. Those who had most widely argued the possibility of exact diagnosis had had the least abdominal experience. They believed that it was possible to say positively that this or that swelling was the result of an ectopic gestation, because they did not understand the various train of pathological conditions that had their manifestation in pelvic fulness, tenderness, throbbing, and the like.

In a given case we could say that here we have a disease in which the probability of the presence of an extra-fœtal pregnancy could often be safely affirmed after certain periods. First, after rupture; second, after the fœtus had become viable; third, the presence of discharging fœtal remains, either through the bladder, rectum, or umbilicus. But it was most ridiculous to consider the last condition under the head of diagnosis.

As to the diagnosis previous to rupture, it need hardly be considered, for our attention was called to the case only by the symptoms of rupture. The diagnosis must be after the conclusion that a pregnancy existed. We could then judge by the conditions whether the case was one of ectopic gestation.

Winchel's assertion that ectopic gestation was more readily diagnosticated than the normal condition, was one which was safely left with himself. It was hardly worth while to dispute it. His abdominal experience had not been sufficient to justify his sweeping statements in diagnosis. The treatment was only by cœliotomy.

Extra-uterine Pregnancy.—Dr. A. H. Cordier, of Kansas City, read only that portion of his paper relating the history of a case of extra-uterine pregnancy, the specimen being presented. A few years ago extra-uterine pregnancy was considered very rare. During his brief experience he had seen an unusual number. The past two years he had operated or assisted in sixteen cases. The duration of pregnancy had been between six weeks and two years. In all cases the pregnancy was at first tubal, and rupture must always take place into some part at some time unless there was arrest of growth.

Intra-peritoneal was to extra-peritoneal rupture in the proportion of three to one. Where rupture was intra-ligamentous the fœtus could live.

The specimen presented was from a woman, aged twenty-four, operated upon April 15, 1893. The pregnancy dated from August, 1891, symptoms of rupture in October. She had felt fœtal movements up to April, 1892, or nine months after conception. False labor pains came on. She began again to menstruate, December, 1892, and was regular until March, 1893.

The diagnosis before operation was uncertain, but ectopic gestation was the one most acceptable. When the incision was made down to the tumor, it was noticed that the knife cut down upon the growth at the lower angle of the vascular membrane; this was tied in sections. This tying and cutting process had to be tied around the middle of the tumor. On the upper and posterior aspect of the growth an intestine was found attached nine inches. This had been brought about by the mass, or it had ascended out of the pelvis, stripping the peritoneum from the posterior wall of this cavity and separating the layers of the mesentery up to the gut by the same gradual process that early in the pregnancy had pulled apart the two layers of the broad ligament. After making a complete circuit of the growth (amnion) the tumor was easily lifted from the bottom of the pelvis. This locality did not require a single ligature. At the left side of the uterus, near the tubo-uterine junction, the peritoneum was so firmly attached to the uterus that the organ was cut into and gave rise to considerable hemorrhage. This was controlled by a stitch or two, and the membrane was divided at a greater distance from the uterus. The tumor being taken out, the peritoneum was lifted up from the bottom of the pelvis on that side, hemorrhage being controlled by water. Irrigation and drainage were used.

She did well. The mass contained a full-formed eight-pound child. The sac was filled with the fœtus and placenta. The placental site was at the top of the sac. The rupture had evidently, he said, been into the broad ligament where the fœtus went on to develop.

Dr. Howard A. Kelly had had three cases of extra-uterine pregnancy which had gone to term; the child had died, and in about six months afterward he saw the woman, and operated by the only method which he thought was satisfactory—complete extirpation of the fœtus, with sac, membranes, and placenta. The vessels having shrivelled, there was less danger from hemorrhage than when the fœtus was living. Dr. Kelly formerly disbelieved in intra-ligamentous pregnancy, but had seen one undoubted case, shown to be so by the pathologist.

Dr. Boldt had seen three cases of undoubted intra-ligamentous fœtation.

Dr. Davis, of Birmingham, Ala., thought the child could not have been taken out in the sac as it was had it not been in the broad ligament, and asked Dr. Joseph Price's opinion on this subject; and Dr. Price said he did not think there was any evidence of the case being one of rupture into the broad ligament and development there. He had never seen such a case, and believed tubal pregnancy always ruptured into the peritoneal cavity, not into the broad ligament.

Accouchement Forcé in Certain Obstetrical Complications.—Dr. Lewellyn Elliot, of Washington, D. C., read this paper. He defined accouchement forcé as labor actively begun and terminated by artificial aid, either with dilators, tampons, Barnes's bags, or the fingers. He urged as his opinion the superiority of the fingers over all the mechanical devices in use, as well as the most harmless. This mode of practice was indicated in cases of uræmic convulsions, either threatening or in existence, rigid os, placenta prævia, uterine inertia, and other conditions requiring artificial aid. He deplored the fact that books and journal articles were silent upon this old method, and quoted Charpentier, Winchel, and Lusk as being opposed to it. He denied that the method would be attended by untoward effects—post-partum hemorrhage, laceration of the cervix, uterine inertia—more frequently than by other means. He recited the histories of four cases where the method had been employed by him—two of uræmic poisoning, one of placenta prævia, and one of rigid os—all of which terminated favorably.

This paper was discussed by Drs. Mitchell, of Cincinnati; H. A. Kelly, Earle, of Chicago; Barker, of Phila-

delphia, who condemned accouchement forcé except in certain rare cases, and thought it had cost many lives. Much was said about meddlesome midwifery, danger of sepsis from use of the finger, etc.

Suspensio Uteri.—Dr. Howard A. Kelly, of Baltimore, made some remarks based upon the principal points contained in a paper upon this subject. The board, drawings, and photographs were used in illustration. He claimed to be the originator in suspending the uterus by attaching it to the abdominal walls. He wrote a paper ten years ago upon the correction of retro-displacement of the uterus by stitching the organ to the anterior abdominal wall. It had since come to be one of the tested gynecological procedures. He and others had designated this method of keeping the uterus forward by several terms (hysterorrhaphy, ventral fixation, etc.), which he regarded as inappropriate, and he had come to call it suspensio uteri. The suspension of the uterus could be effected satisfactorily by two methods, and by only two. In the one, the abdomen being opened, sutures were passed through at the horns on both sides and fastened to the walls of the abdominal incision. In the other method the sutures passed entirely through the uterus at its base. He used silk and left it in. One would find that after several months the uterus could be moved freely, but could not be thrown backward. He had done other operations, among them shortening the round ligaments within the abdomen, but the uterus soon fell back.

It was not to be supposed that suspensio uteri should be practised in all cases of retro-displacement. At the dispensary of the Johns Hopkins their attending physician had sent up to him only eighty cases out of several hundred in which he thought this procedure was called for, or mechanical measures had failed. Dr. Kelly had operated on only 44 of the 80. The result, however, had been entirely satisfactory in all the 44. The women were of two classes, the unmarried, and the married who had all borne more than three children apiece. Of the 44 there had been 18 single, 23 married. Among other symptoms which had disappeared in many, were those of a hysterical or nervous nature.

Dr. H. J. Boldt, of New York, thought Dr. Kelly should not object to the term ventral fixation since he left in the silk ligature, for that would certainly keep the uterus fixed unless it cut through the walls. It was objectionable too, for it would interfere with the advance of pregnancy. Dr. Boldt claimed to have first denominated the operation suspension of the uterus. He would do the operation only where a pessary failed to keep the uterus up, or the patient was anxious to get rid of the pessary, or the abdomen were opened for some other condition. To open the abdomen for this operation when the uterus was quite movable, was unjustifiable. Alexander's operation was then indicated.

Lactational Insanity.—Dr. George H. Rohe, Superintendent of the Maryland Asylum for the Insane, read this paper. He said prolonged or excessive lactation had been given as the chief cause of insanity occurring during the nursing period. In most cases this was probably true, yet there were some in which the disease must be attributed to other etiological factors.

Recent careful study of insanity during the lying-in period had shown its frequent dependence upon septic puerperal processes. Certain of his own observations, presented at the last meeting, might be regarded as confirmatory of this view. In insanity the psychical phenomena were generally so striking as to overshadow bodily anomalies, and thus these had failed to be noticed.

Among the most recent authorities Dr. Bevan Lewis regarded the exhaustion and sequelæ of labor, and defective uterine involution, as important etiological factors, especially in the earlier cases of lactational insanity.

Seven and four-tenths per cent. of all the women admitted to the Maryland Hospital the past two years developed their insanity during the beginning of the nursing period. They were thus classified: Melancholia, 2; mania, 1; confusional insanity, 2. Of the latter two one died and the other went on to profound dementia. The case of mania was discharged, recovered, after six months. One of melancholia recovered after repairing a badly lacerated cervix. The other case had improved.

The average proportion of puerperal insanity in its widest sense to all insanities in women was about ten per cent. Among these the number of cases of lactational insanity number on an average thirty-five per cent.

The practical question of prognosis was hard to settle by the statistics.

The treatment of lactational insanity resolved itself simply into the exercise of the principles of general therapeutics: remove sources of irritation, correct aberrant functions, restore wasted strength. These principles, if consistently carried out, would usually lead to success.

The Abuse of Emmet's Operation for Laceration of the Cervix.—Dr. E. C. Dudley, of Chicago, read the paper. Emmet first operated for laceration of the cervix in 1862, and published his statement in 1869. He published elaborate papers in 1874 and 1877. Notwithstanding the clearness with which the indications and contra-indications, and the technique, were defined, the operation was still often so badly executed as to be followed by most disappointing, and sometimes by injurious, results. He passed by with mere mention the abuse of applying the operation to cases unsuited to it, including those in which the laceration was slight and not associated with uterine catarrh, cervical cystic degeneration, cervical erosion, and cervical eversion.

The most common faults in the execution of trachelorrhaphy, so that the operation might fail or do harm, were: 1, disregard by the operator of the presence of granular endometritis; 2, closure of the os externum so tightly as to obstruct the free outflow of secretions; 3, failure to remove cicatricial plug in the angle of the wound; 4, rolling the diseased cervical glands into the cervical canal, where they found expression either in cervical catarrh or retention cysts.

Granular endometritis furnished a positive indication for forcible dilatation and curettement, uterine irrigation, and the application of strong carbolic acid and iodine, all of which should immediately precede closure of the cervix except in aggravated cases, when the curettement should be followed by thorough and repeated uterine tamponade of gauze after the method popularized by Polk.

In practice he now found most cases requiring curettement for catarrh, and his results had been much better since adopting the custom of exploring in nearly all cases for this condition.

Effectual treatment of the diseased Nabothian glands pouring out large quantities of white-of-egg secretion required their removal by excision, cauterization or free use of the sharp curette was not sufficient.

Fourth Day, Friday, June 9th.

After-treatment in Cœliotomy.—Dr. Flemming, of Denver, read a paper on this subject. He did not hesitate to say emphatically that opium should not be given to control pain unless the patient had been addicted to the use of the drug. He believed opium had killed more patients than cœliotomy. It checked peristalsis, natural secretions, caused thirst, restlessness, etc. As to laxativeness, they gave small doses of calomel, or if this caused nausea they gave salines. Where drainage was employed it was either by glass tube or iodoform gauze. To prevent pain of tympanites they avoided opiates, kept up peristalsis by hot-water injections and the use of laxatives. The long rectal tube had been of little use in the majority of their cases. More benefit had come from hot-water injections. They gave ten grains of sulphate quinine twice, if necessary, in twenty-four hours.

Reopening the abdomen was practised under three conditions—hemorrhage, sepsis, and peritonitis—although their experience in this line had been limited.

Regarding diet, the less one put into the patient's

stomach the first forty eight hours the better. Then give fluid food, and if there were nausea give predigested food. After a few days almost any food desired could be given with exercise of due care.

Dr. Mitchell, of Cincinnati, regarded the subject matter of this paper as most important in gynecological practice. The success of cœliotomy depended upon the after-treatment. No food should be given in twenty-four or forty eight hours. The drainage tube also acted in controlling hemorrhage.

Dr. J. H. W. Chestnut, of Philadelphia, queried as to the theory of the drainage-tube controlling hemorrhage. The clinical fact was well recognized. Like the author, he believed opium had done much mischief, but he thought that with care it could be used with benefit in some cases not addicted to the opium habit.

Dr. Newman, of Chicago, said that in a hospital with which he was connected they used iodoform wicking in drainage instead of iodoform gauze. It did not become thready like gauze, and drained even better. They also applied the Esmarch bandage around the abdomen over the dressing, and had found it gave the patient comfort by its elastic support to the relaxed wall, and also by its warmth and soothing influence.

Memorials were presented for publication in the volume of the Section's Transactions of the late Dr. A. Reeves Jackson and Dr. F. M. Johnson.

A vote of thanks was tendered the Chairman, Dr. Duff.

SECTION ON SURGERY.

First Day, Tuesday, June 6th.

Antiquity of Syphilis.—Dr. J. T. Jelks, of Hot Springs, Ark., President of the Section, delivered the annual address, taking as his subject a consideration of the antiquity of syphilis. He congratulated the profession upon the advance of surgical methods in the past fifty years, especially through the introduction of anæsthetics, antisepsis, and modern bacteriology, which as yet is in its infancy. Some indeed affect to slur at the good work done in the days of our fathers as viewed by the light of modern research; but this spirit should receive no sympathy.

Referring to the subject of his paper, he said that Dr. Buret had proved that syphilis was known many centuries before the Christian era. In 1921 B.C., Abraham introduced his wife Sarah as his sister to the court of the Egyptian Pharaoh, who took her to wife, and as a consequence infected himself and all his other wives, so that the infection spread through the court and a plague of sterility followed. In the book of Psalms, King David graphically describes his sufferings due to his own transgression, and his description is a perfect representation of tertiary syphilis with iritis and gummata. Moses speaks of a severe epidemic among his men following upon their intimate relations with Moabitish women. To check it he ordered the massacre of twenty-four thousand tainted men, and later all the women who had known men carnally. The worship in the temples of Baal was simple prostitution, and the epidemic of Baal was undoubtedly syphilis, although possibly in a rather more acute form than it presents to-day, as the human race may now be partially inured to it through the sufferings of former generations.

Acute Intestinal Obstruction Treated by Laparotomy.—Dr. A. J. Ochsner, of Chicago, reported three cases of this nature. He regretted that he could not report a larger number, but offered them, knowing the value of individualization in such cases.

Case I.—A child, after a fall, had slight recurring pains in the abdomen. The pain increased gradually with the formation of a sausage-shaped tumor to the right of the umbilicus. Laparotomy in the middle line below the umbilicus showed an intussusception of the ileum into the cæcum which required considerable force to reduce. The appendix was removed, for it was very long and formed a complete loop around the ileum, and evidently was the cause of the trouble. The recovery was rapid and uneventful. The force necessary for the reduction of the intussusception proved that injections of water would have been useless in this case.

Case II.—A laborer, thirty-two years of age, complained of pain in the left inguinal region following a fall. Three days later the symptoms were nausea, tympanites, and obstipation, with an indistinct tumor in the left inguinal region. A diagnosis of volvulus was made. Laparotomy disclosed a volvulus of the sigmoid flexure. The twist was easily unturned outside of the abdomen, but the inflated intestine could only be returned after the withdrawal of gas through a large anal tube.

Case III.—A man, eighty-one years of age, had increasing umbilical pain, with shock and stercoraceous vomiting on the third day. A diagnosis of obstruction of the small intestine, cause unknown, was made. Laparotomy revealed a loop of intestine, one foot long, which had slipped under Meckel's diverticulum. It had evidently been there for years, but strangulation had occurred recently. Death followed from shock in thirteen hours. The author wished to call attention to the great value of washing out the stomach with a stomach-tube before operating upon cases of intestinal obstruction from any cause, especially if stercoraceous vomiting is present. It will lessen the vomiting during and after the operation, and so reduce shock as well as the inhalation of vomitus.

Unnecessary Restrictions in Surgery was the title of a paper read by Dr. J. D. Roberts, of Philadelphia. He pointed out the danger of too blindly following the dogmatic statements of many of the teachers of to day, and so of limiting the amount of good which comes from individual experience. He believed that the immobilization of fractures of a limb after operations, or in joint diseases, is often carried on too long simply from theoretical reasons. Water is denied to laparotomy patients too frequently, simply from the dictum of old teachings, certainly not from the result of individual experience. The restrictions in the after-treatment of operations upon the eye are too frequently severer than are necessary.

While the speaker did not advocate a reckless cutting loose from the old-established customs which govern all the details of the management of stated cases, still he wished to make a plea against the blind following of all the rules from memory, and not from the knowledge of their why and wherefore, and to protest against the old routine treatment without regard to the individuality of the cases.

Report of Cases in Evidence of the Surgical Impunity of the Peritoneal Viscera.—Dr. J. E. Link, of Terre Haute, Ind., presented a communication with this title. The author had recently made numerous intestinal sutures for artificial wounds and gut resections in dogs, without the slightest attempts at antisepsis or even cleanliness, and yet his results are uniformly good. He gave an exhibition of this "dirty surgery" upon the body of a dog, fearlessly cutting open the abdomen, inserting his unwashed hand into the peritoneal cavity, making a rough gut-resection, the ends loosely joined with three or four stitches, and the large abdominal wound closed with only a single stitch. He showed several specimens of former operations in which the gut had healed perfectly and no stenosis had resulted. He has found that the peritoneum can invariably care for any dirt or even small particles of fæces with impunity to itself, though the outer wound does not do as well as when asepsis is secured. He believed that what is true of the peritoneum of the dog is also true of that of man. His object in presenting these cases to the Society was not in any way to lessen the importance of asepsis and antisepsis in abdominal surgery, for he is a firm believer in them, but to encourage general practitioners to operate immediately in cases of emergency, such as perforating wounds of the intestine, even if their technique is not perfect, rather than to make the fatal mistake of delaying until a specialist can be summoned from many miles away.

The paper created a lively discussion, and inasmuch

as the canine peritoneum cannot be properly compared with the human peritoneum, the danger of such teaching, in tending to reduce carefulness in abdominal surgery, was clearly pointed out.

SECOND DAY, WEDNESDAY, JUNE 7TH.

Stricture of the Ureter.—DR. CHRISTIAN FENGER, of Chicago, described an operation for the relief of stricture of the ureter in cases of hydro- or pyo-nephrosis. Lumbar nephrectomy has a mortality of thirty-seven per cent., while nephrotomy, including twenty-two per cent. for the primary operation and seven per cent. for the secondary closing of the fistula, has only twenty-nine per cent. Still, nephrectomy is a single operation and cures immediately, if at all. But there are certain cases of hydro- or pyo-nephrosis where it is not indicated.

In many cases intermittent hydronephrosis is due to the oblique opening of the ureter into the pelvis of the kidney, which causes its closure until the pelvis is moderately distended, when there is a discharge of its contents. In these cases an incision can be made into the pelvis of the kidney through the usual lumbar incision, and the opening into the ureter can be made more patulous by simple plastic surgery. The author reported a successful case of such procedure.

Again, hydronephrosis from stricture of the ureter, due either to ureteritis or partial rupture from traumatism, can be successfully treated without a nephrectomy. If the stricture is a limited one, a short longitudinal incision can be made through the stricture, followed by the union of the opposite ends of the incision, so that the line of sutures is transverse although the incision was longitudinal. He reported a successful case of this operation. The upper two-thirds of the ureter can be reached through the lumbar nephrotomy incision extended downward if necessary; the lower third by making an osteoplastic flap of the sacrum.

Transverse union of a section of the ureter is rarely successful, and lateral anastomosis and other methods require an exceptional length of the ureter.

When possible, nephrectomy should be avoided, as frequently the hydro-nephrotic kidney retains remarkable secretive power and the soundness of the other kidney cannot be definitely ascertained. Therefore the operations indicated by the author are a step toward conservatism.

Operations on the Gall-tracts.—DR. J. B. MURPHY, of Chicago, read a paper on this subject. He called attention to the anatomical relations of the gall-bladder, recommending an incision over the ninth right costal cartilage in all operations upon that viscus. The single function of the gall-bladder is to control the tension of the gall circulation, and it is not necessary to life. In dogs after its removal he has observed the gradual distention of the cystic duct until it replaces the removed gall-bladder. Healthy bile is not septic; but bile which escapes pathologically into the peritoneal cavity is septic, owing to the pathological cause.

The author has collected 25 cases of simple surgical puncture of the gall-bladder for diagnosis, with a mortality of twenty-five per cent. Of 23 cases of simple incision and drainage, eighteen per cent. died. In 59 cases of primary suture of the gall-bladder to the abdominal wall and a secondary incision, the mortality was ten per cent., the lowest of all operations upon this viscus. In 201 cases of the same operation but done in one sitting, twenty-five per cent. died. In cases where all the bile drains outside the patients die of marasmus, and those operations which retain the flow of bile in its natural channel are far preferable. In cholecystotomy without drainage the mortality is twenty-three per cent.

The author strongly advises cholecysto-enterotomy, joining the gall-bladder to the intestine near the normal opening of the common duct. He has done this, using a button similar to his intestinal button many times in dogs, with universal success. He has operated in this manner seven times for encysted gall-stones in man, and his colleagues two more times, and all nine cases are living. In one operation for pancreatic cancer death resulted from causes not attributable to this method.

The author points out the dangers of protracted abdominal operations and the saving of valuable time by the use of his intestinal button.

He operated upon a living dog before the Section, completing the operation in about ten minutes.

Intestinal Anastomosis Without Plates.—DR. M. E. CONNELL, of Wauwatosa, Wis., described his improved method of securing intestinal anastomosis. Diagrams and specimens were shown to the meeting illustrative of the author's new method. This is a lateral anastomosis by means of longitudinal incisions into the sides of the intestine after the closure of the open ends. The method is new simply in the suturing employed, and consists of an uninterrupted through and through suture of the two adjoining sides of the incisions, but with the loops of each stitch left long enough to allow the intestines to be turned until the two further sides of the incisions can be approximated and then sewed by a tight continuous suture. The intestines are then turned back again, and the first suture is drawn tight until the loops have disappeared and the knots are secured. This method has proved very successful in operations upon dogs, and as it requires but a few minutes for its completion, its advantages over more complicated methods of suture are obvious.

A Case of Chronic Glanders, with Recovery was reported by DR. BAYARD HOLMES, of Chicago. Glanders is rare in man, and presents itself in one of two forms, either an acute affection fatal in the course of a few weeks, or else a distinctly chronic disease. The author presented a patient, a farm hand, twenty-six years of age, who, four years ago, after caring for a horse suffering from glanders, was attacked by multiple abscesses. These were very radically treated by operation and their contents were used for inoculation experiments upon rabbits and guinea-pigs, with the result of death in the rabbits and orchitis in the guinea-pigs. For two and one-half years the patient was subjected to operation twenty times, either for the elimination of new foci or the recleaning of the old ones. The wounds all healed slowly. The patient is now entirely well.

A New Operation for Varicose Veins was described by DR. ERNEST LAPLACE, of Philadelphia. As the varicose veins are aneurismal in character the treatment can rightly be compared to that of aneurism.

Radical measures are usually limited to acupressure, ligature, or excision. The measures employed to cause coagulation are too painful and too limited in the extent of their action.

The long saphena drains the front of the leg and the circumference of the thigh, and the short saphena drains the posterior surface of the leg. The author's method is to ligate both veins, the long saphena at the saphenous opening and the short one just below the popliteal space. Elevation of the limb and rest in bed for a fortnight is the after-treatment. The author has done the operation seventeen times with perfect success, with the exception of one case in which there was an anomalous position of the long saphenous.

The advantages of the operation are that it can control very extensive varicose veins, that it can be done easily with cocaine, and that no relapses have occurred.

DR. R. M. RICKETTS, of Cincinnati, presented some specimens and a diagram illustrating the method of the Mansell operation of intestinal anastomosis.

Partial Amputations of the Foot.—DR. T. H. MANLY, of New York, read a paper on this subject. In spite of the fact that instrument-makers say that partial amputations of the foot yield results less satisfactory than amputation of the leg at the point of election with the application of an artificial leg, the author wished to uphold the old principle of the preservation of healthy structures as far as possible. The more he sees of lacerations of the feet the more doubtful tissue he spares. Al-

though the result of the tarsal amputations is not always satisfactory, an amputation of the leg later can always be resorted to if necessary. Nor is the artificial limb so invariably satisfactory as it is often represented. It necessitates time, care, and expense, and not infrequently causes trouble in the stump.

Appendicitis.—Dr. Jos. Hoffman, of Philadelphia, presented a communication on inflammation of the appendix. The author reviewed the various anatomical positions of the appendix, which account for the variety of the places to which the pain is referred and the difficulty of finding the appendix in some operations. To arrive at a diagnosis in doubtful cases the moderate use of salines and calomel is of great value. The aspirating needle should never be used, an exploratory incision being much safer. Operation should not be delayed in those cases which do not do well, and should be immediately employed when any evidence of suppuration is present.

Regarding the operation between attacks, the author advises operation after even the first well-authenticated attack of appendicitis, to prevent any chance of a recurrence.

Extirpation of Aneurisms.—Dr. Joseph Ransohoff, of Cincinnati, read a paper with this title. The operative methods of treating aneurisms are the Hunterian proximal ligation, the splitting of the aneurismal sac with ligation above and below, and lastly the total extirpation of the aneurism.

The disadvantages of the first method are its high rate of mortality, about eighteen per cent., the frequent recurrence of the aneurism even after the lapse of years, and the frequency of gangrene and secondary hemorrhages.

In the second method the sac is left behind and is practically a foreign body, often giving rise to suppuration. The mortality is eleven per cent.

Total extirpation is an operation devised centuries ago, and has been revived within the past few years. It is an ideal operation upon aneurisms of the smaller vessels, and its results are just as perfect upon the large vessels of the extremities. The author has collected forty-six cases of this operation, more than half being upon the large vessels, with only one death in a case of aneurism of the scalp. In none of the cases did secondary hemorrhage, gangrene, or a relapse occur. He reported two cases of his own resulting in perfect cure of radial aneurism.

A New Operation for Anterior Cleft-palate Combined with Harelip.—Dr. John Wyeth, of New York, described his method in a short paper supplemented by a series of diagrams. Silver wire is inserted at about a quarter of an inch from the anterior edges of the gaping bones, and the alveolar process of the most affected side is chiselled through at about the middle point. The wire is then drawn taut, and the freed portion of the alveolar process is thus brought to join the opposite maxilla at the front of the mouth. Union is secured in from six to eight weeks, and then the plastic work upon the lip and nasal alæ is undertaken according to the usual plan. The advantage of the new method is that bony support is secured in the front of the mouth, and therefore the cosmetic results are far better than usual in severe cases.

The author advised early operation, always in the first year of life, and preferably in the first three months if the general nutrition is good.

Third Day, Thursday, June 8th.

Brain Surgery.—A paper on this subject was read by Dr. F. C. Schaefer, of Chicago. The author reported nine interesting cases of injury to the head. The diagnosis of intracranial lesions of traumatic origin is still uncertain, and every carefully reported case is of value. He showed his method of controlling hemorrhage from the scalp incision. He winds a solid rubber tubing around the head two or three times in the diameter of the occipital protuberance and the frontal sinus, and ties it securely. This tourniquet is held in place by three silk stitches taken in the scalp.

The author advises against delay in operation in any case where there are doubtful symptoms, as an incision through the scalp is not dangerous and may lead to the discovery of important conditions necessitating immediate further interference.

Treatment of Empyema.—Dr. E. L. Shurley, of Detroit, read a paper entitled "Artificial Opening of Pulmonary Cavities, Insertion of Rubber Tube, and Injection of Chlorine Gas."

Pulmonary cavities have been opened surgically as early as 1844, but the general result has not been very satisfactory. The diagnosis of the nature of the cavity is not always easy, nor is the exact localization of the cavity, whether deep or superficial. Cutting through sound lung-tissue to reach the cavity has both immediate and remote dangers.

The author has demonstrated the valuable effects of chlorine gas in destroying tuberculous and suppurative bacilli. As the direct inhalation of a sufficient quantity of chlorine gas is impossible, the author advocates the opening of the cavity from the lateral chest-wall, the insertion of a rubber tube, and the pumping of the chlorine gas mixed with air through the tube. He uses a bottle half full of chlorine water and pumps the air through the bottle into the tube, the air carrying with it a sufficient quantity of the gas. No coughing ensues, as the irritant does not reach the larynx.

In a case of pneumo-pyothorax in which this method was tried the result was satisfactory, though a fistula remained in the course of the drainage tube.

In two other cases of operation on tubercular cavities the patients ultimately died, though the immediate effects of the operation were beneficial. The author does not believe in the universal tubercular nature of empyema, and therefore thinks that the field for this operation is a large one. He advocates the use of gas rather than of fluids in the thoracic cavities.

Dr. J. McFadden Gaston, of Atlanta, Ga., also presented a communication on thoracic surgery. He reviewed the advance made in thoracic surgery in the past years and ended his paper with a summary. All penetrating wounds of the thorax should be closed hermetically after the oozing of blood has ceased. If severe hemorrhage is present efforts may be made to check it by operation. The use of the probe should be given up. Foreign bodies in the bronchi should be removed by means of a low tracheotomy and the introduction of forceps.

Reaching the bronchus from the lateral chest-wall is a dangerous procedure, and the localization of the foreign body is very difficult.

In serous pleurisy drugs and expectant methods should be employed at first, aspiration should be resorted to in cases of large effusion or in delayed absorption.

Eslander's and Schede's operations are not regarded so favorably as formerly. Partial resection of the ribs is better than either, except in cases of large persistent abscesses, or gangrene of the lung.

In empyema partial resection of one rib with large drainage-tubes is usually the best operation. Washing out the pleural cavity is usually not necessary.

In gangrene of the lung, thorough opening with considerable gauze-packing, is most satisfactory.

Tumors of the mediastinum are much more frequent at autopsy than on the operating-table.

Resection of portions of the lung has not been performed often enough to draw any satisfactory conclusions from it.

In the discussion of the paper, Dr. LaPlace, of Philadelphia, ably pointed out the advantages of gauze-packing over a drainage-tube of any kind. The former is thorough complete drainage by capillary attraction, the latter is often no drainage at all, simply a useless foreign body.

Election of Officers.—The following officers of the Section were elected for the ensuing year:

Chairman, J. B. Roberts, of Philadelphia; *Vice-Chairman*, J. D. Griffiths, of Kansas City; *Secretary*, F. W. McRea, of Georgia.

(To be continued.)

MEDICAL SOCIETY OF NEW JERSEY.

One Hundred and Twenty-seventh Annual Meeting, held at Asbury Park, June 27 and 28, 1893.

GEORGE T. WELCH, M.D., OF PASSAIC, PRESIDENT.

Address of Welcome.—DR. SAMUEL JOHNSON, Chairman of the Committee on Arrangements, read a brief address of welcome to Asbury Park. He said it had been four years since the Society had met here before, during which time many improvements had been made. The town had all the essentials of health. There was a custom among the Greeks and Persians of giving to the victor water and earth. "To-day," he said, "we tender you the ocean; you can have the earth if you want it."

The Secretary, DR. WILLIAM PIERSON, then read an abstract of the minutes of the last annual meeting; after which Dr. William Perry Watson, recognizing the presence of the Honorable James A. Bradley, moved that he be invited to a seat on the platform.

MR. BRADLEY said it was an honor to any town to be visited by the New Jersey Medical Society, and he asked the favor of the Society to sit for a photograph, as he would like to have it to adorn a room which he was preparing for the reception of bathers who might become exhausted in the water. He would also like the privilege of presenting a copy of the picture to each member. Mr. Bradley's generous proposition was accepted.

Permanent Delegates.—The following named gentlemen, having been recommended by their district societies, were elected permanent delegates: Drs. Alonzo Pettit, E. B. Silvers, P. A. Harris, G. E. Redding, and B. A. Waddington.

Jealous of Its Surplus.—DR. E. J. ILL offered a resolution authorizing the appropriation from the accumulated funds of the Society of a sum sufficient to cover the initiation fee and first assessment to make each member of the district societies also a member of the Society for the Relief of Widows and Orphans of Medical Men. The funds in the treasury now amount to over five thousand dollars, and the discussion last year and at this meeting showed some feeling against the use of this money for any other purpose than that for which it had been collected—the legitimate expenses of the State Society. Under a recent by-law Dr. Ill's motion had to lie over one year.

Honorary Members.—DR. H. G. TAYLOR, Chairman of the Committee on Honorary Membership, said that no new names had been presented during the year, but that last year the Committee had reported favorably on the names of Drs. F. S. Dennis, John H. Ripley, and Virgil P. Gibney, of New York, and under the by-laws the election had been deferred until the present meeting. One member wished to know whether a committee had not been appointed to ascertain whether all these gentlemen were members of the American Medical Association; and as it appeared no committee had been appointed for that purpose, the balloting was proceeded with, and Drs. Dennis, Ripley, and Gibney were duly elected honorary members.

The Health of New Jersey.—DR. D. C. ENGLISH read the report of the Standing Committee of which he was chairman. In it was given a summary of the health of New Jersey, ascertained, as usual, by blanks sent to members of district societies. There had been unusual exemption from zymotic diseases. Improved sanitary conditions had been reported from most counties, attributable largely to the expected visitation of cholera. There had been considerable variola at Red Bank. An epidemic of hysteria had been reported from Cramer Hill, due to religious excitement, in which both men and women were affected. The hospitals and charitable institutions reported a decided increase of work over preceding years, which Dr. English said demonstrated that New Jersey compared favorably with her sister States in open-handed charity. But the reporter from Camden County had questioned whether their charity was not greatly abused. In the matter of treatment, one reporter practised in scarlet fever washing the entire body with a solution of corrosive sublimate; another recommended large doses of calomel, in pneumonia, repeating, if necessary, until two grains had been used.

In Essex County a number of the physicians had entered a movement to supply families who wished it with disinfected milk, and it was thought that if it should prove practical it would be well to extend the movement to other parts of the State.

The Committee questioned the propriety of continuing these reports, as they practically duplicated the work in this direction of the State Sanitary Association. That portion of the report containing suggestions in case cholera should visit us was, on motion of Dr. Godfrey, ordered printed in pamphlet form for distribution.

Bovine Tuberculosis. Its Transmission to Man, and How to Prevent It.—DR. J. W. STICKLER, of Orange, read the paper. The history of tubercles as found in the bovine species did not differ, so far as he could learn, from that of tubercles found in man. The bovine tribe was pre-eminently disposed—equally so with man. He quoted the statement that no predisposing cause exercised such a potent influence in the production of tubercles as heredity. Breeding in-and-in predisposed. Alderneys, Guernseys, and short-horns were especially prone to the disease in Scotland, and Jerseys in this country. Early, late, and over-breeding predisposed. Animals with light barrels, narrow chests, and disproportionately long legs were more apt to have tuberculosis than those perfectly formed. Climate, locality, debility, had a potent influence. Serous membranes were oftenest affected; next came the lungs. Some general points in pathology and symptomatology were considered.

In answering the question whether human and bovine tuberculosis were the same, he would say that when lower animals were inoculated with tuberculous matter from man the results were the same as when tubercular matter from the lower animals was used, and in each case the tubercle bacilli were found.

Anatomically bovine tuberculosis was a progressively advancing affection in which nodes and nodules were found. These might be single or aggregated. Calcification was more common than caseation.

Lower animals fed and inoculated with matter from such nodules got tuberculosis (Gerlach, Creighton, Orth, etc.). Bollinger produced tuberculosis in pigs by feeding them on milk from tuberculous cows.

The question, was bovine tuberculosis communicable to man could, the author thought, be satisfactorily answered in the affirmative. Klebs, Bollinger, Stein, Johns, Bang, Toussaint, Cheveau, and many others besides Koch, concurred in stating that if milk from cattle with tuberculous udders were given for a lengthened period, tuberculosis would develop.

Professor Thomas Walley, of Edinburgh, wrote him that he had himself been inoculated three times in wounds received while dressing tuberculous carcases, and had lost a child from intestinal tuberculosis in which all the evidence pointed to infection through milk from a tuberculous cow. The letter stated further that there was not a pathologist of note in Europe who denied the identity of human and bovine tuberculosis. It was accepted at the Hygenic Congress in London as an established fact. A similar view was expressed in a letter received from Dr. J. C. Corlies which further quoted Nocard, member of the French Academy of Medicine, on steps taken to prevent spread of tuberculosis among men from cows in Paris. The rules were carried out by veterinarians. Tuberculin was recommended in diagnosis by Corlies.

To prevent spread of tuberculosis from cattle to men was a question considered in letters received from Von Hebra, of Vienna; Walley, of Edinburgh; Duffield, of Michigan; Frank S. Billings, and others. Billings' communication was of considerable length, and stated that there was little tuberculosis in cattle on the prairies; that meat was not dangerous when there were few tuber-

cular foci, especially when well cooked. The danger was greater in milk, especially for the young, but was much diminished by feeding the children with mixed dairy milk, and not milk from one cow. He recommended locating every dairy in the State, have a laboratory and working forces, inoculate cows with tuberculin, if there was a reaction let the owner sell or fatten them, but when the cattle were slaughtered it should be under inspection of a veterinarian.

The paper was discussed by Drs. W. B. E. Miller, Corlies, Baldwin, Rogers, Laur, Coit, Charles Young, Benjamin, Lielbach, C. E. Redding, and the author. A resolution was adopted which called for the appointment of a committee to co-operate with committees from certain other societies, to secure legislation against the spread of bovine tuberculosis. Later, the President appointed Drs. Stickler, A. W. Baldwin, and Charles Young.

Voice Regained after Total Extirpation of Larynx and Vocal Cords.—Dr. H. S. Wetherill, through the courtesy of Dr. Delavan, exhibited the man on whom Dr. Solis-Cohen had completely extirpated the larynx, with the vocal cords, and who had nevertheless regained his voice so that he was able to talk distinctly in a whisper. A tracheotomy tube was worn just above the sternum. It was the only case of the kind on record.

The President's Annual Address.—Dr. George T. Welch, of Passaic, chose for the subject of his address, "Therapeutical Superstition" (see p. 33).

Legislation for the Prevention of Blindness.—Dr. W. B. Johnson, of Paterson, read this paper. The necessity for legislation to prevent the increase of blindness was shown by the fact that the ratio of increase of blindness in the State was greater than that of increase of population, and also by the fact that blindness was, in large measure, a preventable condition. The question had received attention in other countries, and laws had been passed, and in our own country New York State had set a laudable example. Dr. Johnson quoted Cornelius Agnew, C. J. Kipp, Lucien Howe, resolutions adopted by the American Ophthalmological Society, the law of the State of New York, etc., to show that if midwives were to report early any cases of eye trouble, if physicians were to adopt proper treatment at once, if the public could have rules to govern them in avoiding contagious ophthalmia; if, in short, suitable legislation were enacted, much could be done to prevent the increase or occurrence of blindness.

On motion of Dr. Harris, of Paterson, the President was authorized to appoint a committee of three to consider the question of legislation to prevent blindness, and to report at the next annual meeting. The President appointed Drs. W. B. Johnson, C. J. Kipp, and P. A. Harris.

Delegates from State societies handed in their credentials, Dr. Walter B. Chase appearing from New York and Dr. W. B. Johnson reporting from the American Medical Association. Later a resolution was adopted intended to elicit the opinion of the profession in the State regarding the Code of Ethics as requested by the American Medical Association.

Modern Methods of Venders of Drugs.—At the last annual meeting the subject presented for discussion on this occasion was entitled, "Is the Philosophical Practice of Medicine not Materially Jeopardized by the Modern Methods of Venders of Drugs?"

The discussion was opened by Dr. H. L. Coit, who took the ground that the philosophical practice of medicine was jeopardized by venders for two or more reasons: first, the vender's purpose was wholly commercial; second, the materials which they dispensed consisted for the most part of substances which were entirely worthless to the profession. But there were three classes of tradesmen in drugs: one included the scientific pharmacist whose motives were above question, whose services had proved invaluable in getting out the new pharmacopœia, etc.: the second included the unvarnished charlatan; the third the pseudo-scientific manufacturer and vender.

Dr. Stickler said he did not see how we could be any more affected by the venders of drugs than the principles of Christianity could be affected by the teachings of Professor Briggs. There was some further discussion by Drs. Rogers, Redding, Alexander, Marcy, and Andrews.

Quarantine of Cholera.—Dr. William Elmer, Jr., third vice-president, read a brief essay in which he presented the present status of quarantine against cholera in this country, and while regarding present arrangements as superior to any existing heretofore, expressed the opinion that there should be a national board of health with a national bureau. He said his views were quite in accord with those expressed by Dr. T. Mitchell Prudden in a recent article in a popular magazine, in which a central bureau of health was advocated. Such a bureau should be in close touch with State boards of health. He thought the time would also come when there would be an international quarantine service, and this should turn its attention to cholera at its origin, in the Ganges, wiping it from the face of the earth.

Some remarks on the paper were made by Drs. Kipp, Godfrey, and Mitchell.

Some Thoughts on Symptoms and Diagnosis.—Dr. S. E. Armstrong read the paper, reciting briefly a few cases in illustration of his views. Symptoms were certain manifestations indicating a deviation from the normal health, and in classifying his subject he made the following startling points for his deductions: 1. From pathological changes to symptoms, to diagnosis, to treatment. 2. From functional disturbances to symptoms, to diagnosis, to treatment. 3. From a lying and deceitful patient, a perfectly normal body, to an absence of rational symptoms, to a diagnosis, to treatment. 4. Anomalous cases.

Incidentally the author expressed the view that the faculties of the mind calculated to make a diagnostician and physician were, in general, best developed by a study of botany, logic, mental philosophy, and higher mathematics.

Case of Supra-vaginal Hysterectomy for Fibromata of the Uterus.—Dr. H. G. Wetherill presented a specimen and read the history of a case of supra-vaginal hysterectomy with extra-abdominal (Tait's) treatment of the pedicle for a large nodulated fibroid weighing fourteen pounds and a half, the patient having been refused an operation three years before by a Philadelphia surgeon. after opening the abdomen and discovering, as he said, extensive adhesions. Dr. Wetherill found no adhesions, and the operation was a simple one, although the shortness of the pedicle caused some difficulty. The patient had some rise of temperature, but made a good recovery. He thought Baer's operation might yet establish for itself the first place.

The proposed amendment to the By-Laws, extending the Treasurer's term of office from one year to five, was lost.

Officers were elected as follows: *President*, Dr. John G. Ryerson; *First Vice-President*, O. H. Sproul; *Second Vice-President*, William Elmer, Jr.; *Third Vice-President*, T. J. Smith; *Corresponding Secretary*, E. L. B. Godfrey; *Recording Secretary*, William Pierson; *Treasurer*, Archibald Mercer; *Standing Committee*, D. C. English, H. W. Elmer, and W. H. Izard.

Place of next meeting, Lake Hopatcong; time, fourth Tuesday in June.

In making its report the Nominating Committee said that Dr. William Pierson had shown his modesty in rejecting the nomination to Third Vice-President, the Vice-Presidents being regularly advanced until made President, and a vote of thanks was tendered him for his long service, twenty-six years, as Secretary. His name was also proposed as honorary member of the Society, to be voted upon at the next annual meeting.

Self-seeking Homœopathists.—Dr. Benjamin moved the appointment of a committee on legislation, and showed that at the last session of the Legislature the ho-

mœopathists had had a bill passed which would have excluded all other physicians from the State Hospitals for the insane had the Governor either signed or vetoed it.

The president appointed on the committee Drs. Ward, Sheppard, and Elmer.

Adjourned.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

HOSPITAL SUNDAY—MEDICAL OFFICERS OF HEALTH, THEIR RELATIONS TO PRACTITIONERS—THE EASTBOURNE CASE—THE PRESSURE ON THE HOSPITALS FOR INFECTIOUS DISEASES—DEATH CERTIFICATION—PIT BURIAL—NEW FELLOWS OF THE ROYAL SOCIETY—HONORS ON THE QUEEN'S BIRTHDAY—CONCLUSION OF SESSION AT THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY—ATROPINE FOR CHOLERA—CAVENDISH LECTURE—RENAL SURGERY—WESTMINSTER HOSPITAL MEDICAL SCHOOL—VACANCIES—SMALL-POX DECREASING.

London, June 10, 1893.

To-morrow is Hospital Sunday in London, when collections are made in aid of these charities at most of the churches and chapels. In anticipation of the event a special supplement to *The Lancet* has been separately printed and distributed to the officials of the various places of worship. Such a supplement has now been issued for several successive years. The present issue contains an interesting sketch of the origin of the several hospital systems which are at work in the metropolis. The sketch contains some quaint quotations from early documents and is calculated to awake an intelligent interest in our medical charities.

Some medical officers of health seem to possess superabundant zeal, which would be all the better if tempered by discretion. They have received the support and confidence of the profession, but in too many cases have returned evil for good. Every now and then practitioners complain of the interference of these officers, who seem to think themselves entitled to question the diagnosis and comment on the treatment of cases, and otherwise make themselves obnoxious. In the exercise of their rights, too, many seem to be devoid of tact. I lately met with one instance where the officer ordered the drains at once to be taken up and relaid in a house where the tenant lay in an almost dying state, the reason being that there had been a communication between the sink and that of the adjoining house and it was desirable to examine the two at the same time. If every pair of villas were to be redrained for such a reason there would soon be an agitation against sanitary movements. But in this case the illness of the tenant was surely sufficient reason for delay, as no annoyance had been found from smells, etc.

Some time ago a cleric told me he was an antivaccinationist because he foresaw that health officers would become tyrants and all tyranny was bad. At times I have feared he had some ground for his fear. A very flagrant case has occurred at Eastbourne, a favorite sea-side resort. There a boy in the sanatorium, at the end of the thirteenth week of scarlatina, was removed to his home under the superintendence of the family adviser, who was supported by two other qualified practitioners in the opinion that to do so was safe, all desquamation having ceased. Nevertheless, the medical officer of health set up his own opinion against these three gentlemen, and actually induced his Board to take out a summons against the one who removed the lad. The excuse for this is that the Board were bound to support the opinion of their own salaried officer. This officer is a young man who has gone direct into the sanitary service on the strength of his diplomas, and has, therefore, no experience of medical practice, and apparently very little regard for the feelings or respect for the views of older men who are not official sanitarians. The case has given rise to some altercation in the journals, but I have not met a single member of the profession in London who has a word to say in defence of the indiscretion of the officer of health. If such monstrous doings should become common the sanitary service of the country would be in danger of being disorganized. Officers of health must be taught that they cannot be suffered to ride roughshod over their brethren. They must either observe the amenities required of other members of the profession or they must be ostracized. In the latter case they would soon be removed, for it is certain that the public would not consent for people to be imprisoned in sanatoria when their family attendants declared there was no necessity for such a course. It is said the Sanitary Board of Eastbourne is chuckling at the success of its vindication of its own importance. The town may sing a different song when it learns how many physicians have decided to recommend their patients to avoid that resort until it becomes clear that in case of contracting disease there they will not be imprisoned in the sanatorium, at the discretion of a medical officer, for a period which their own advisers consider unnecessary. I hear, too, that vaccination has been greatly neglected in Eastbourne. The local authorities had better mend their ways if they wish their town to retain its position as a health-resort.

The provision of hospital accommodation for infectious diseases is entrusted to the Asylums Board, which has for many years discharged its duties most efficiently. The Board has, however, found it difficult to secure sites for new hospitals, and the pressure of late has been such that, if continued, new hospitals must be built or patients cannot be provided with accommodation. Not unnaturally, the inhabitants of any locality object to a large hospital for infectious diseases being erected among them, and the Board seems to have been very unfortunate in selecting sites which have aroused opposition. The question of distance is no doubt important, and yet there are numerous localities where there is little room for objection. The Board has, however, been so frustrated that the matter has been mentioned in Parliament, and will, perhaps, obtain more attention.

Some shocking revelations have been made before the Select Committee of the House of Commons on Death Certification. It has been shown that pit burial is rather frequent in London cemeteries, and during the epidemic of influenza some pits were kept open for days, and even weeks, from twenty to forty bodies being placed in them. We affect to be utterly shocked at the common "fosse" of France and Italy, and yet there has been growing up among us a system that only differs in degree. It is well that a parliamentary committee should have been informed of the facts. We may hope for a thorough reform of our system of death certification from these revelations.

Among the new Fellows of the Royal Society are Dr. Gairdner, Dr. Alfred Russell Wallace, Professor Cossar Ewart, Dr. C. S. Sherrington, and Professor Trail.

The Queen's birthday was as usual marked by a distribution of honors in which the profession was not quite forgotten. The distinction of C.B. was conferred on several surgeons holding official positions in India and the colonies. At home a baronetcy has been given to Dr. C. Cameron, M.P., who, although he has given up practice for politics is useful as a medical member of Parliament. A knighthood has been conferred on Dr. O. Priestley, the eminent gynecologist and consulting physician of King's College, and also on Dr. Benjamin W. Richardson, whose sanitary and scientific work is well known. Some of his temperance friends have suggested that the honor is due to his advocacy of abstinence; I reply in that case the ministry have neutralized it by gazetting also an advertising wine merchant.

London, June 17, 1893.

The concluding meeting for this session of the Royal Medical and Chirurgical Society was held on Tuesday last, the 13th inst., when Dr. L. Brunton, whose tendency to theoretical therapeutics is well known, read a paper

on atropine in cholera. The idea results from the antagonism observed between atropine and muscarine. There is a similarity of symptoms between cholera and muscarine poisoning. A few months ago Dr. Brunton had an opportunity of testing the drug on a patient who came from Hamburg. A man and his child were admitted to the hospital; the man soon after died and the child was collapsed, but a subcutaneous injection of atropine revived her for a time. Then she relapsed, and the injection was repeated and the child recovered. There were never any rice-water stools in father or child, but Dr. Klein found comma bacilli in the intestine of the man. Dr. Brunton suggested that there were different forms of cholera and that atropine might be useful when cholera had most effect on the circulation, but not when the intestines were chiefly concerned; as in experiments with Dr. Pye-Smith the intestinal secretion was not arrested by atropine.

Brigade surgeon Scriven, from an Indian experience of twenty-eight years, could only recognize one form of cholera and rice-water evacuation as the most constant and characteristic symptom. Dr. Pye-Smith regarded the finding of the bacillus as a good diagnostic mark, whether it was the cause or not. He would not rely on any one symptom as pathognomonic. Colorless fæces only resulted from all the contents being washed away and the removal of succus entericus as secreted.

Dr. Patterson, who has seen cholera in Chili, said he saw the man before admission to the hospital and he had typical cholera. There were rice-water evacuations, temperature 96.6° F., pulse 110, blueness and suppression of urine. The child when he saw it had premonitory diarrhœa only. Dr. Ormerod, who made the post-mortem on the man, said the face was shrivelled, the blood tarry, the internal organs shrunken and light in weight, the intestinal contents colored. He contrasted the case with that of another man who had died of violent diarrhœa. In this there was no shrivelling, the blood was liquid, and comma bacilli were not found.

Some may perhaps be encouraged to try atropine further, but it seems to me that the case affords no expectation that it can be of any use except as a stimulant to the circulatory and respiratory centres, just as in any condition in which these centres are failing. It clearly cannot act as an astringent on the intestinal membrane.

A case of malignant disease (encephaloid sarcoma) of the thyroid was related in which the growth penetrated the trachea and displayed a tendency to become pedunculated.

The Cavendish lecture was delivered on Monday by Mr. Henry Morris, who took for subject some changes in surgical opinion regarding diseases of the urinary organs. Since Lawrence congratulated his class that the "kidney was fortunately beyond the reach of the surgeon," the changes in opinion and practice have indeed been great. To surgeons of our day the kidney is easily accessible, and is not only removed when too much diseased to be useful, but is subjected to other operative procedures. Mr. Morris has had no little experience and success in this branch of surgery, and his views are regarded with respect by other surgeons. His remarks on "Movable Kidney and Its Diagnosis" were very interesting, especially as to the necessity of distinguishing the condition from distended gall-bladder, floating spleen, and ovarian or other cysts which discharge their contents at intervals. But movable kidney is, he says, the most frequent cause of "phantom tumors." Mr. Morris divided surgical anuria, if I may use the term, into mechanical and reflex. The former occurs after nephrectomy or after destruction of one kidney by disease; through blocking of the ureter of the other side by clot, calculus, or muco-pus; through sinking of ureter of a movable kidney, or from pressure on ureter.

Reflex anuria is sometimes attributed to urethral irritation, but since the advance of renal surgery we know that mechanical irritation of one kidney may cause total suppression in both. Mr. Morris has quite given up probing with a needle for calculus and employs incisions in the curved border of the organ so as to introduce the finger. To do this satisfactorily the organ must be brought out to the surface of the loin where its structure can be examined by the eye while its interior recesses are completely explored by the finger. The remainder of the lecture was devoted to the mutations of opinion on the surgery of the bladder and urethra.

The Westminster Hospital Medical School has been long established and has certain advantages of position, but has never been successful. It still remains the smallest school, and many think it could be very well spared. If it were amalgamated with one of the other smaller schools it would diminish their number—perhaps to the general advantage. I mention this because at the present time there are a considerable number of vacancies, and judging from the many who in the past have joined the institution and speedily retired the attractions of these offices must be very slight. I hear it whispered, too, that the main cause of dissatisfaction is the want of a loyal management. When a first-rate teacher is obtained he is not retained—in fact, jealousies are permitted to interfere with him. Whether this is so or not we may take it for tolerably certain that someone is wanting in the *suaviter in modo* so necessary in such an institution. Dr. Grigg, who for nearly twenty years has been assistant obstetric physician to the hospital, has just resigned; so has Dr. Hughes Bennett. Dr. Sturges, the senior physician, also resigns the chair of medicine, and Dr. P. S. Abraham that of physiology. The last named is a specially heavy loss to the school. Dr. Murrell gives up Materia Medica, but retains therapeutics. Mr. Macnamara resigns surgery, and Mr. R. Davy operative surgery. There would thus appear chances for some of our young men, but I would warn them to look at the past history of this our smallest school, and to pitch their expectations of promotion, if successful, at several points below zero.

I am glad to report a decrease in the prevalence of small-pox. Influenza and diseases of the respiratory organs have greatly diminished during the prolonged fine and hot weather which has amounted to drought.

THE CHAMBERS STREET HOSPITAL.

To the Editor of the Medical Record.

Sir: The announcement has recently been made that the Society of the New York Hospital is about to erect new buildings for its down-town department. All who are familiar with the character of the work which it has carried on in Chambers Street must appreciate the necessity for enlarged room for the accommodation of the patients.

The new building will doubtless be spacious, modern, and well appointed, but the older ex-internes will always look back with very much pleasure on the work done in the small, inadequate building known as the "Chambers Street Hospital." Reference is made more particularly to the period between 1876 and 1888, during which time it was under the direction of Dr. William T. Bull. When Dr. Bull took charge of the hospital in 1876 he was fresh from his European studies, and imbued with the truth and importance of the then novel theory of antisepsis in surgery. Here the details of antisepsis, in its early days of carbolic acid and the cumbersome Lister dressing, were so carefully studied and thoroughly carried out, that we may say, without exaggeration, that the hospital was in the very front rank of continuous progress in the matter of wound treatment.

The house officers were imbued with the attending surgeon's thoroughness and attention to detail, and each department became the seat of active and energetic work. An idea of the relative increase in the size of the service may be gathered from the statement that, during the above-mentioned period, the ambulance service grew from nine hundred to twenty-five hundred calls, the out-patients from five thousand to nineteen thousand.

In the treatment of fractures, the reduction of dislocations by manipulation, the value of saline infusion, the management of wounds, and in fact in all branches of traumatic surgery, constant progress was made.

It was here that Dr. Bull, in 1884, successfully did laparotomy for gunshot wound of the intestine, and laid down principles which have since been generally adopted, and which have materially lowered the death-rate attending this formidable lesion.

As has been said, the house-staff and out-patient assistants worked with enthusiasm, they pointed with pride to the statement that patients admitted to other hospitals or dispensaries could be recognized as having come from Chambers Street by the excellence of their dressings.

It was not the intention of the writer to discuss these matters in detail, but simply to call attention to the fact that this small hospital in Chambers Street, soon to be demolished, has contributed not a little to modern surgery, and that it and its work will be affectionately remembered by the old house officers.

An Ex-Interne.

APPENDICITIS AND RATIONAL SURGERY.

To the Editor of the Medical Record.

Sir: In the Record of May 27th you chronicle the important fact that the appendix pendulum is beginning to swing the other way. These were glad tidings to all who have rational methods of dealing with pathological conditions at heart. Will you permit me to put in a mild protest against the spirit of your concluding remarks? If, as you say, conservatism in surgery is worthy of, at least, consideration, it still stands convicted, even though under extenuating circumstances.

Conservatism placed its indelible stamp upon the art of surgery with the advent of Listerism, when saw and scalpel gave way to drainage-tube and protective dressing, when limb preservation largely superseded limb amputation. Has anything occurred since that would justify its being defiled as half-brother to mental stagnation? I think not, but I think that the odium attached to it has been forced upon us by that coterie of men who wave the banner of radicalism on the floor of our professional gatherings and in the columns of our journals. Utterly possessed with the fervor operandi, they are blissfully ignorant of the fact that their teachings are evanescent and ephemeral, doomed to arouse wondering curiosity in the minds of generations that are to be. Radicalism subserves one good purpose: it sharply outlines our limitations, and after having fulfilled its mission it will yield the palm to rational surgery, *i.e.*, the surgery which abhors dogmatism, rut, and routine, and teaches its disciple to adapt his methods judiciously to each individual case, not shrinking from the most daring measures if the occasion demands them.

Radicalism is the offspring of over-specialization. The latter has worked greater injury to surgery than to any other branch of medical science. Who has not met a Themistocles in the ranks of surgical specialists, spending sleepless nights over the laurels of a Miltiades who happened to reach the high-water mark in the number of cases operated upon? The existence of such dangerous incentive "to swell the record" cannot be gainsaid: it means a mad race for numerical supremacy! Let me but point to those formidable windmills—formidable to the quixotic fancy of the gynecological fanatic—the irritable ovaries and thickened tubes. May the day soon dawn that shall free long-suffering womanhood from the daring grip of the professional unsexer! How far the absurdity may be carried was strikingly illustrated by the recent discovery that the waning charms, intellectual and spiritual, of our mothers, wives, and sisters may be restored by just a slight surgical coup-de main, *i.e.*, by a timely retraction of the præputium clitoridis; this would be ridiculous if it were not so utterly disgusting. I could go on indefinitely, but sapienti sat!

With the beginning of the era of rationalism in surgery we may justly hope for the rehabilitation to his former prestige of the "broad-gauge" surgeon, whose deft hand, keen eye, and perfect scientific equipment will enable him to embrace all the recesses of the human organism as a field of his activity. This will deal the death-blow to the puny mediocrity which, by confining its energies to a few square inches of the human frame, has fallen victim to hopeless cerebral strabismus.

It would be idle to put forth the claim that the physician should watch the development of things surgical as an uninterested observer, humbly submitting to the inevitable. In many an hour of anxiety and danger, after having exhausted his own resources, the physician appeals to the surgeon, and he ought to do so fearlessly, confident of his patient's receiving the full benefit of the most careful judgment and of the highest skill. As a physician shall I try, in what follows, to suggest one way of stemming the tide of radicalism.

Whenever conservatism raises its warning voice the opposing faction seeks shelter behind the rampart of—what they choose to call—statistics. It would be preposterous to decry the value of statistics in our age of census taking and scientific exactness. But to be valuable they must be complete or nearly so. Are the statistics on appendicitis able to withstand the search-light of scientific scrutiny? Are they anything more than a series of reports on successful or unsuccessful operations? How many hundreds, nay, thousands, of cases have passed through the hands of surgeons and physicians within the scope of a single lifetime, in which the wily appendix has flatly refused to live up to the blood-curdling expectations of his implacable foes! Why should our reputable journals refuse to lend a helping hand to the cause of truth and justice? preserving their neutrality, they shall act simply on the maxim of "Audiatur et altera pars." Reports on all non-operative cases should be invited: each case to be summed up epigrammatically in a dozen words, while stress should be laid on the length of the period of immunity and absence of all symptoms, subjective and objective. I am certain that the result would surpass the most glowing expectations of the friends of rational surgery. Unless some such step is taken, we should not be surprised to have a modern Moses appear in the midst of us, who would attempt to make prophylactic excision of the appendix a matter of law and custom.

Edward C. Runge, M.D.

4515A Easton Ave., St. Louis, Mo.

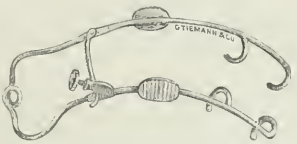
New Instruments.

A NEW EYE SPECULUM.

By William Holland Wilmer, M.D.,

Washington, D. C.

The speculum of which the accompanying figure is an illustration, has been used by the writer over a year with much satisfaction. The clearness of the cut renders a detailed description unnecessary.



It has been found that the instrument causes the minimum amount of pressure upon the eyeball, and owing to the perfect parallelism of the arms, it gives a large field for operating. It can also be used equally well for either eye, the fixation screw being so obliquely placed that it does not interfere with the knife. Moreover, it is very light and comfortable to the patient. It has proved especially useful in operations upon the upper and lower

muscles, on account of the construction of that portion of the speculum that supports the lids.

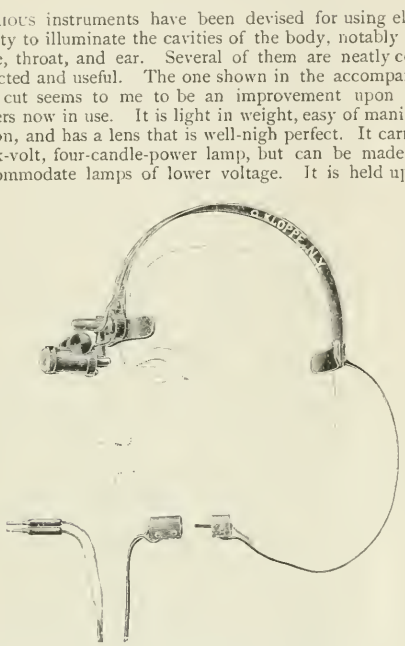
The instrument was made by George Tiemann & Co., New York.

A MODIFIED ELECTRICAL HEAD ILLUMINATOR.

By WENDELL C. PHILLIPS, M.D.,

NEW YORK.

Various instruments have been devised for using electricity to illuminate the cavities of the body, notably the nose, throat, and ear. Several of them are neatly constructed and useful. The one shown in the accompanying cut seems to me to be an improvement upon the others now in use. It is light in weight, easy of manipulation, and has a lens that is well-nigh perfect. It carries a six-volt, four-candle-power lamp, but can be made to accommodate lamps of lower voltage. It is held upon



the head by means of a steel band running from before backward, with sufficient spring to hold it in place. By means of the thumb-screw shown at the side of the lamp cylinder, the focus may be regulated easily and quickly. The experimental work in connection with this instrument has been done by Otto Kloppe, who is also the manufacturer. I have aided him by suggestions to develop it.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending July 1, 1893.

	Cases.	Deaths.
Typhus fever	2	2
Typhoid fever	17	6
Scarlet fever	63	4
Cerebro-spinal meningitis	5	6
Measles	161	12
Diphtheria	119	45
Small-pox	7	1
Cholera	0	0
Varciella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

Pilocarpine in Threatened Mania.—Among the practical discoveries in therapeutics is the value of pilocarpine in threatened mania, and this is cause for congratulation, since the physiological action of the drug furnishes a scientific explanation of the manner by which the benefits are secured, namely, by stimulating the excretory functions. Willoughby, some time ago, reported the case of a man who was usually a sound sleeper, but for several weeks had been unable to obtain needed repose; during short dozes he would talk business, his appetite had failed, and for several days before his visit had scarcely slept or eaten. The patient was found in bed in a dark room with wet cloths on his head, singing, shouting, gesticulating, snapping his fingers, talking wildly, and seeing illusions, with a temperature of 104° F. After failure to procure sleep by the use of chloral and liquor opii sedative in substantial doses during a period of six hours, it was decided to use pilocarpine, one-sixth grain being injected into the arm at ten o'clock. Within five minutes profuse perspiration and salivation occurred, and the next morning the patient was perfectly calm and rational, the skin cool and moist, temperature less than half a degree above normal, head clear and appetite returning.—*The American Therapist.*

The Parish Doctor in Greece.—Dr. Kessner has an interesting article in the *Medical Magazine* pointing out that numerous tests and epigraphs exist to show that in every Greek city there was a public physician, whose duty it was to attend gratuitously both strangers and citizens, though practically only the poor claimed the benefit of his free ministrations. The inscriptions and bas reliefs from which this fact is ascertained are preserved in the British Museum. They consist of ten votive tablets, kept under glass in a small room near the mausoleum, with the sepulchral tablet of Jason and certain popular decrees throwing considerable light on the status of the medical profession in Greece.

The Health Department's Contribution to the Chicago World's Fair.—The exhibit of the Health Department of this city is now ready for shipment to the World's Fair. It consists of a handsomely bound volume containing samples of the different forms of certificates and circulars issued. The exhibit is ingeniously arranged, showing the work of the Department in every stage. There is an original complaint from a citizen about a tenement, and the blanks that follow show how the nuisance was investigated and finally abated. Accompanying the volume will be photographs of the various hospitals under the charge of the Department and the boats used in transferring the patients. A map of North Brother Island, showing the Riverside Hospital and other contagious disease pavilions, will also be shown.

McGill University, Montreal.—The chair of pathology and public hygiene in the medical school has recently been endowed by a gift of $100.000. The donor, who is also the chancellor of the university, is Sir Donald A. Smith.

BOOKS RECEIVED.

A System of Genito-urinary Diseases: Syphilology and Dermatology by Various Authors. Edited by Prince A. Morrow, M.D. Three Volumes, royal 8vo. Vol. I., 1,074 pages, illustrated. D. Appleton & Co., New York.

A Text-book of the Theory and Practice of Medicine by American Teachers. Edited by William Pepper, M.D. Two Volumes, royal 8vo. Vol. I., 909 pages, illustrated. W. B. Saunders, Philadelphia, Pa.

The Diseases of the Nervous System. By Dr. Ludwig Hirt. Translated by August Hoch, M.D. 8vo. 683 pages, illustrated. D. Appleton & Co., New York.

Human Anatomy: A Complete Systematic Treatise by Various Authors. Edited by Henry Morris, M.D. Royal 8vo, 1,286 pages. P. Blakiston, Son & Co., Philadelphia, Pa. Price, $7.50.

History of the Life of D. Hayes Agnew, M.D., LL.D. By J. Howe Adams, M.D. Royal 8vo. 376 pages. The F. A. Davis Co., Philadelphia, Pa.

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Original Articles.

ETIOLOGY OF THE VARIOUS DEFORMITIES OF HIP-JOINT DISEASE.[1]

BY A. M. PHELPS, M.D.,

PROFESSOR OF ORTHOPEDIC SURGERY IN THE UNIVERSITY OF NEW YORK AND THE NEW YORK POST-GRADUATE SCHOOL AND HOSPITAL; PROFESSOR OF SURGERY IN THE UNIVERSITY OF VERMONT; SURGEON TO THE CITY HOSPITAL.

WE are all familiar with the deformities which occur in the first, second, and third stages of hip-joint disease. The typical deformities are: In the first, abduction, slight flexion, and outward rotation, with apparent lengthening (see Fig. 1); in the second, an exaggeration of the deformity which occurs in the first (see Fig. 2); while in the third stage the entire picture changes to that of flexion, adduction, inward rotation, and real shortening, with the heel resting upon the opposite instep (see Fig. 3). In a considerable per cent. of cases erratic deformities are observed; such as extreme flexion with outward rotation and shortening of the affected limb, the deformity of the second stage occurring in the third. Abduction and shortening, without flexion, is sometimes seen.

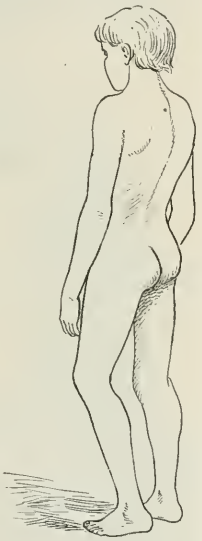


FIG. 1.

This division into stages is made merely for clinical convenience, and relates only to semeiology.

Barwell says that we may conclude that the appearances indicate certain processes of disease, but with morbid anatomy the division into stages has no direct connection. I have adopted this classification of the deformities in my observations and in writing.

A limb *with shortening, from destruction of bone*, I classify as belonging *to the third stage, without regarding the deformity present.* A limb with adduction, flexion, and inward rotation, I classify as disease in the third stage; even though there be no shortening, *I have observed in cases excised, that these deformities of the three stages, as already described, follow very closely, and quite accurately interpret, certain pathological changes taking place in, or about, the joint.*

The question under consideration is, what causes these various deformities?

1. Why does the limb assume, nearly always, the position of abduction, flexion, and outward rotation with fixation, in the first and second stages, and adduction, flexion, and inward rotation in the third stage? (See Figs. 1 and 2.)

2. Why, in a certain percentage of cases, do the deformities of the second stage occur in the third, *i.e.*, flexion, abduction, and outward rotation?

[1] Read before the American Orthopedic Association, September, 1892.

Barwell makes no attempt to explain these phenomena. I quote from his book:[1]

"While the muscles thus waste, the joint assumes a fixed position, natural in itself, abnormal only in its persistency toward the side of flexion. This is the case at the elbow, wrist, and ankle, while at the shoulder abduction pertains; at the knee an inward twist of the tibia is usually combined with considerable flexion; at the hip, very complicated positions, to be studied in a future chapter, are assumed. These postures assume in nearly every case of joint disease, almost with the certainty of an unchangeable law. There is, then, in all joint diseases, a tendency of the flexor muscles to contract, while the extensors, if not in absolute relaxation, do not, at all events, retract sufficiently to annul such action.

"It is true that the flexors are probably, in all limbs, stronger than the extensors, but in fact a mere examination will show that on the flexor side muscles are rigid, and on the opposite side flaccid. Our knowledge is as yet insufficient to account for the phenomenon."

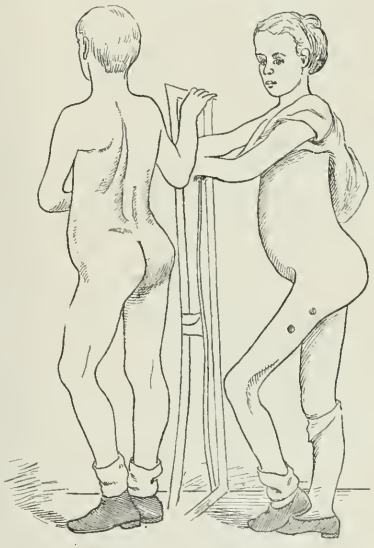


FIG. 2. FIG. 3.

We will consider these statements later. The experiments of the Germans demonstrated that the joint, when forcibly injected from within the pelvis, produced eversion, flexion, and abduction of the limb, and immobilization of the joint.

Sayre concludes from these experiments, that effusions are present in the joints diseased, that this intra-capsular hydraulic pressure is the cause of the deformity in the first and second stages of hip disease.

He says (p. 248): "The peculiar position of the limb gives to the second stage of the disease the name 'apparent lengthening,' but I prefer to designate it as the stage of effusion."

And he accounts for the deformity of the third stage, viz., flexion, adduction, and inward rotation, by the

[1] Barwell, p. 106. Wood's Library, 1881.

rupture of the capsule and the escape of the fluid, thus relieving intra-articular pressure. This, he claims, allows the leg to swing to the deformity of the third stage. He says (p. 259):

"And rupture of the capsule takes place and the imprisoned fluid escapes into the surrounding tissues. When this has occurred the disease is in the third stage.

"The limb is now adducted, inverted, and flexed.

"The change in position is due to the fact that the fluid in the joint cavity has been evacuated.

"The distention of the capsule, which was the mechanical cause of the flexion and adduction of the limb, having been relieved, nothing now obstructs the free action of the adductors, and the limb is therefore adducted and inverted."

So far as I know, this hypothesis of the Germans, approved and indorsed by Dr. Sayre, is the only explanation we now have of the etiology of the various deformities of hip-joint disease. Barwell offers none; but makes, among others, a broad statement that, "It is true that flexors are probably, in all limbs, stronger than extensors."

A moment of thought will convince us that this last statement is certainly an error.

In the knee-joint the quadriceps is much stronger than the flexors. This we have demonstrated in the course of our experimental work, and it will be published shortly. The same is also true of the hip-joint. The fluid hypothesis is certainly erroneous, for the following reasons:

1. A very large per cent. of cases of morbus coxarius are unattended by fluid effusions. *Still, the same picture of deformity is seen as in those cases attended by large effusions.*

2. I have observed in our clinics and have operated upon cases of *extra-capsular disease, in which the joint was not diseased, but the same picture of deformity presented itself.*

Barwell says (p. 292) "While inflammation, or even suppuration about the epiphysis of the femur arises, certain pains, forms of lameness, etc., are produced; while as yet there is no effusion or suppuration within the joint cavity; no morbid changes of the parts which form its walls. We have, namely, so-called symptoms of morbus coxarius, while as yet in the hip (joint) there is no disease."

3. Cases of suppurating joints, with large effusions, often take the erratic deformities of the third stage—*i.e.*, abduction, flexion, and outward rotation—even after the joint contents have discharged.

4. There can be no reason why, after the evacuation of the joint, the limb should not return to the deformity of the second stage instead of the third; because the three great glutei and outward rotators are stronger than the adductor group, unless the limb is flexed beyond twenty degrees. These are the chief, and I believe, valid reasons why the explanation of these deformities by the fluid hypothesis is incorrect.

I have become fully convinced that as yet a correct explanation has not been offered for these deformities.

After concluding several dissections of the hip-joint, I desire to place before you for your consideration and criticism the theories and hypotheses upon which we worked, and the conclusions at which we arrived.

It became necessary, before any experimental work was performed, to carefully compile clinical data in a large number of cases. Assisted by Drs. Plympton and Greenway, these observations were made at our clinics at the University Medical College, and also at the Outdoor Department and the Orthopedic Ward of the New York Post-Graduate School and Hospital, two places which afforded us ample opportunities for observation. The conclusions reached were:

1. That abduction nearly always preceded flexion, or was attended by it, in the first stage.

2. Abduction and outward rotation, are always present in the second stage. Flexion was nearly always present, but was absent in a few cases.

3. When the limb flexed beyond forty degrees, and frequently at a much lesser degree (twenty degrees), it quite rapidly passed to the deformity of adduction, inward rotation, and flexion, *whether the capsule contained fluid or not.* (The degrees alluded to are from a horizontal plane.)

Fig. 4.

4. A few cases exaggerated the deformity of the second stage for the third. In other cases there was outward rotation, abduction, shortening, with but slight flexion in the third stage. (See Fig. 4.)

In another case, observed by Dr. Plymptom, adduction and inward rotation, without flexion, occurred with three-fourths of an inch shortening. (See Fig. 5.)

Fig. 5.

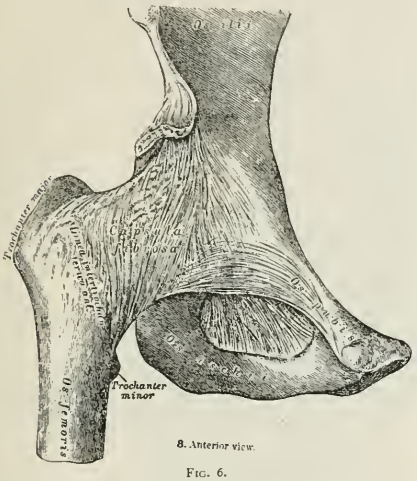
5. That there was always spasm and contraction of muscles about the joint, and *in nearly every case all the various groups were in a state of spasmodic contraction.* That shortening annulled or modified the action of the flexor and abductor group.

These observations, together with dissections which Dr. Greenway and I made, presented numerous problems which will be considered later. At the University dissecting-room, we made a series of dissections, from which, I think, a fair explanation can be given of every deformity which may occur in any case of hip disease.

The hip-joint is surrounded on its outer aspect by a mass of muscles running diagonally from the pelvis to the great trochanter from all directions. When the limb is in a straight position, the combined action of these muscles produces abduction of the limb. The capsule is wound around the neck of the bone. The tension of this capsule, together with that of the Y-ligament, holds the head of the bone firmly in the socket and produces great

pressure upon the joint when the limb is in the straight position. (See Fig. 6. Straight position.)

The great adductor group of muscles pass diagonally downward from the pelvis and are inserted into the shaft



8. Anterior view.

Fig. 6.

at the femur posteriorly along the linea aspera. (See Fig. 7.)

The flexor group arises from within the pelvis, passes downward over the pubes, taking a reinforcement which arises from the anterior surface of the capsule of the joint, and is inserted into the lesser trochanter. This group acts over the pubes as a cord over a pulley, *and its power increases as the leg flexes.* This flexor group is antagonized by the inferior portion of the glutæus maximus.

Fig. 7.

The external rotators are antagonized by the tensor vaginæ femoris and a portion of the glutæus minimus and medius. Thus we have the several groups in their respective order when the limb is in the straight position, viz.:

Glutei group, abductors, antagonizing adductor group.

Flexor group, antagonizing extensor group.

External rotator group, antagonizing internal rotator group.

To determine the relative strength of each group the muscles were weighed separately, and the triangle in which they operated measured, as also was the length of lever upon which they operated. The glutæus maximus muscle, which weighed two and one-half pounds, acting in a triangle formed by a line drawn from its insertion near the great trochanter to the centre of the head of the bone, three inches; from the head of the bone to the origin of the muscle, six inches; from its origin to its insertion, six inches, was assumed to be capable of lifting fifty pounds one inch. This was taken as the unit of strength. Other triangular muscles of different weights, operating in dissimilar triangles, could be accurately estimated as to their comparative strength. The rule which I followed was that laid down by Haughton (see "Haughton's Principles of Animal Mechanics," p. 183), from which I quote:

"The work done by the same (a triangular) muscle will be proportional to double the perpendicular, let fall upon the side of a triangle from the foot of the bisector of the vertical angle." The quality of the muscular fibres of each group very closely correspond. In each group are found fine or coarse muscular fibre in about the same proportion. The rule applied to ascertain the relative strength of the great adductor and abductor group gives to the adductor group a decided advantage, because they stand parallel with the plane of the triangle, whereas the glutei muscles do not, but were so measured and estimated. In spite of this advantage given in the estimates the abductor group acting on the shorter lever was found to be much stronger than the adductors, the proportion *being one hundred and thirty-one pounds for the abductors to one hundred and sixteen pounds for the adductors in the subject examined.* Then, when all the muscles are affected by spasm equally and the limbs parallel, the abductors would produce abduction because of their superior strength.

From our clinical observations *I at once concluded* that the reason why the limb went over to the deformity of the third stage of hip-joint disease *was because the action of these muscles were all changed by the flexion of the limb, or from pathological destruction of the joint changing or annulling the action of the muscles by destroying the leverage, or localized irritation of nerve-plates in the area of disease, producing spasm of groups of muscles receiving nerve-supply from the same common trunk.*

The question of nerve-distribution within the joint quite surely plays an important part in determining deformities occurring in circumscribed foci of disease. But after the entire joint becomes involved, this element must be left out of the question only so far as general spasm is produced in all muscles about the joint. I quote from a letter of Dr. Towle, Professor of Anatomy in the University of Virginia, which seems to demonstrate that the nerve-supply comes from different trunks:

"As to nervous supply of hip, what I have seen is as follows: The obturator immediately on emerging through the obturator foramen gives a branch which pierces the capsule; the sacral plexus, or upper part of great sciatic, gives off two small branches which enter the back of the capsule; the nerve to obturator internus, from sacral plexus, leaving through great sacro-sciatic foramen, gives a branch to back of capsule. What particular structure of joint is supplied by each I cannot say, as I have only traced it to capsular ligament."

When the limb becomes flexed, the abductors begin immediately to lose their power as abductors, and in proportion to flexion become inward rotators.

Figs. 8 and 9, taken from the dissections, represent the glutæus medius, with the limb in a straight position, and then flexed to thirty-five degrees. *In Fig. 8 the muscle acts as an abductor, while in Fig. 9 its action is changed to that of an internal rotator when the limb is flexed to thirty-five degrees.*

Figs. 10 and 11 are from photographs of our dissections of the glutæus minimus. In Fig. 10, the limb straight, the muscle acts as an abductor, and feebly as an internal rotator; whereas in Fig. 11, the limb being flexed only fifteen degrees, it becomes a powerful internal rotator and increases in power as the limb flexes, as does also the tensor vaginæ femoris (see Fig. 11): the outward rotators become abductors when the limb is flexed to an angle of about forty degrees, with the exception of the quadratus femoris and obturator externus. The change of action in the other muscles is quite as marked as in these which have been illustrated and presented as examples. (See

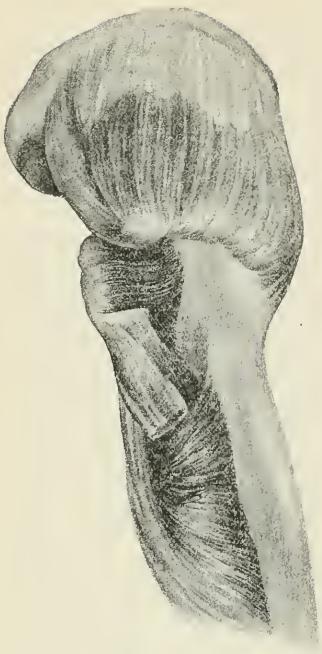


Fig. 8.

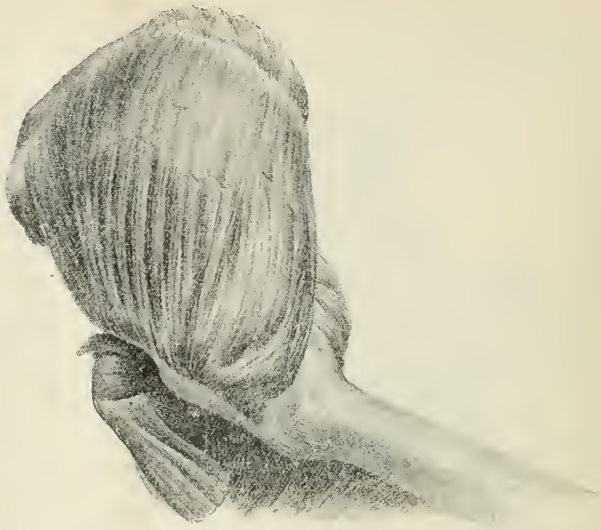


Fig. 9.

Fig. 11.) This brings us to a consideration of the problem before us.

Question 1. Why in the first stage is the limb slightly abducted, outwardly rotated, and flexed with apparent lengthening?

Answer. A voluntary effort on the part of the patient to relieve tension of the capsule and Y-ligament. (See Fig. 6.)

Question 2. Why does this deformity increase, constituting the second stage of the disease?

Answer. Spasm of the muscles about the hip-joint is present. The great glutei, outward rotators, tensor vaginæ femoris, and flexors acting together have the advantage of leverage and strength (being irritated and affected by spasm, and aided by a voluntary effort, or non-resisting effort of the patient, the same as in the first stage) the limb still exaggerates the deformity of the first stage.

Question 3. As a rule, with an occasional exception, why do limbs assume the deformity of the third stage only after flexion to twenty-five degrees has taken place?

Answer. Because after the limb passes to twenty-five degrees of flexion, the abductors to a very great extent *become internal rotators* (see Figs. 8, 9, 10, 11); the *external rotators almost totally lose their power as external rotators* (see Fig. 11), *and become abductors*, with the exception of the quadratus femoris and obturator externus, and the tensor vaginæ femoris becomes a powerful inward rotator. Resistance or antagonism to the powerful abductors and flexors of the thigh being modified or annulled by flexion, the limb must pass to the deformity of the third stage, namely, adduction, flexion, and inward rotation.

Question 4. Why did some cases in the third stage of the disease continue the deformity of the second?

Answer. These may be, and usually are, cases char-

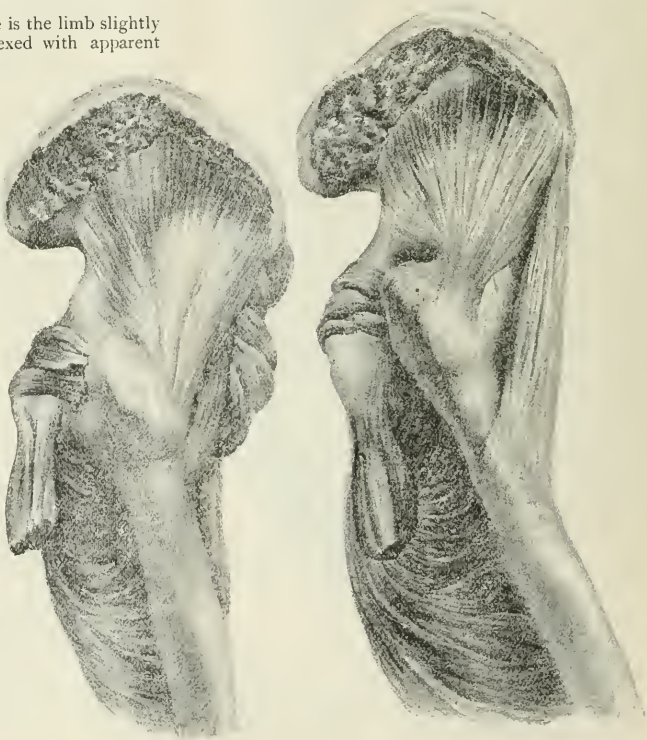


Fig. 10. Fig. 11.

acterized by great abduction and outward rotation from the commencement of the disease, or soon after. Many of these erratic deformities occur in bed cases from positions of ease assumed while lying. In others the head of the bone is thrust forward against the anterior and upper border of the acetabulum, cutting it away, producing a partial dislocation forward. This extreme abduction puts the adductors on the stretch and partially paralyzes them by tension. The abductors and outward rotators become permanently contractured, adhesions form, and the limb is held in this extreme position of deformity of the second stage in the third.

I have excised two cases of this deformity, and in both cases the head of the bone had perforated the acetabulum anteriorly and superiorly, and the bone was held firmly against the pelvis by bands of adhesions.

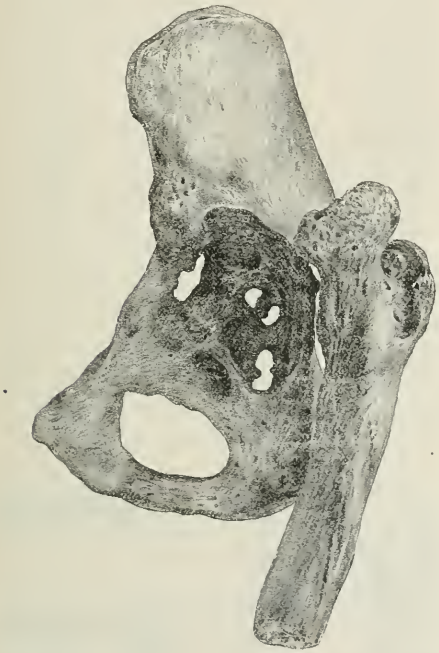


FIG. 12.

Fig. 12 is taken from a photograph of a case where the head of the bone had cut away the acetabulum anteriorly and superiorly, and was about to escape through the openings forming in the acetabulum into the pelvic cavity.

Dislocations may take place anteriorly or posteriorly: posteriorly often from large effusions or other pathological cause; but anteriorly from destruction of the anterior border of the acetabulum, due to the action of the external rotators and glutei muscles and destruction of bone from disease. *The shortening of the neck of the femur destroys the action of the flexors and the abductors by changing the leverage.*

Question 5. Why did one of the cases have adduction, outward rotation, and shortening without flexion? (See Fig. 4.)

Answer. Because of the destruction of the head and neck of the femur, or the passing of the head through the acetabulum *anteriorly*. This destroyed the leverage of the glutei and flexors, which gave the adductors full power to adduct while the external rotators still acted. The same cause explains the deformity in Fig. 5, only the head took a *backward* course owing to *destruction of bone in that part of the acetabulum.*

Nerve-distribution within the joint undoubtedly plays an important part in producing special action of groups of muscles, depending upon the location of the lesion. As, for example, in the knee-joint flexion is never seen in disease of the patella alone. This is due to the fact that this portion of the joint is supplied from the anterior crural nerve, which trunk supplies the extensors of the

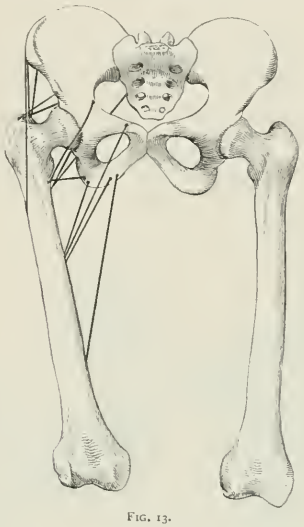


FIG. 13.

limb, and not the flexors. Whereas flexion occurs in disease of the condyles, the nerve-supply of which is derived from the great sciatic, which nerve-trunk supplies the flexors and not the extensors of the limb.

To further illustrate the action of the muscles about the hip-joint, the limb being straight and then flexed, I

FIG 14.

present this manikin, with rubber straps so placed as to represent the action of the various groups of muscles. Fig. 13 should represent the limbs parallel, but the artist failed to place them so. Abduct the limb, as seen in Fig. 14, and the pelvis tilts and the right limb appears too long. This relieves the pressure within the joint by unwinding the capsule (see Fig. 6), and puts the ad-

ductors on the stretch, enfeebling their action until flexion commences, or the head and neck are destroyed by disease. The abductor group being stronger, holds the limb in this position. (See Fig. 15, side view, limbs parallel.) Then as flexion commences the action of every muscle is changed or modified (see Fig. 16), and the limb must assume the position of the third stage of hip-joint disease, viz., flexion, adduction, inward rotation.

Conclusions.—Normal or typical deformities are produced by change of leverage and actions of muscles due to—1. A voluntary effort. 2. Involuntary spasm or contraction of muscles. 3. Nervous irritation of groups of muscles due to location of lesion in or about the joint.

The erratic deformities are produced by change of leverage, due—1. To pathological causes, *e.g.*, destruction of bone, head, neck, or acetabulum. 2. Nervous irritation of groups of muscles, due to location of lesion in and about the joint.

FIG. 15.

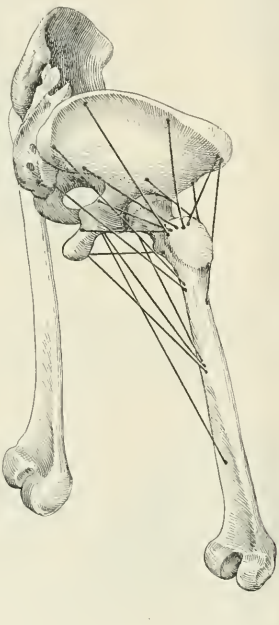


FIG. 16.

The pathological causes of erratic deformities are—1. Shortening of the head and neck of the femur. 2. Perforation of the acetabulum. 3. Shortening of the limb from either of the last-named causes. 4. Burrowing of pus through groups of muscles, either irritating them to contraction or destroying them. 5. Dislocations from destruction of bone. 6. Dislocations from large effusions. 7. Cicatricial contractions binding down and restricting the limit of motion of the femur.

The explanations of the cause of the deformities existing in hip-joint disease is applicable to every joint in the body, and very soon I will publish the result of experiments on all the other joints.

I have for the sake of brevity omitted the mathematical work, and also the results of the study of the action of flexor and extensor groups, for to my mind they play altogether a secondary part in the drama.

The reader at once asks the question, "Why all this work? what good can come of it?" I will briefly answer: In the treatment of hip-joint disease fixation to prevent motion, and extension to overcome intra-articular pressure, is the law of treatment.

We have observed that these great and powerful groups of muscles act upon the thigh with so much force as to produce great deformities. That the patient voluntarily assumes certain positions to relieve the tension of the capsular ligament *whether there is effusion or not. That these groups of muscles do not act on an axis with the*

FIG. 17.—The Cheap Dispensary Splint.

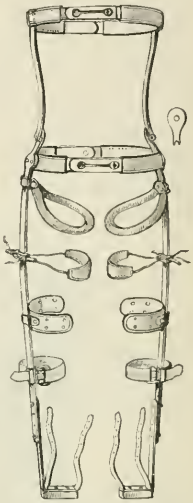


FIG. 18.—The Double Dispensary Splint.

shaft, but nearly on a line parallel with the axis of the neck of the femur. From these facts we must decide that to relieve intra-articular pressure by overcoming the contraction of the muscles *traction should be made in the line of the axis of the neck and not of the shaft.*

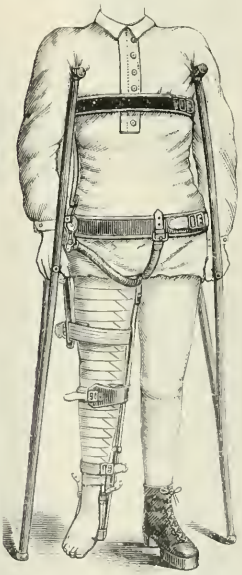


FIG. 19.—The Patient Splint, Adjustive High Shoe, and Crutch.

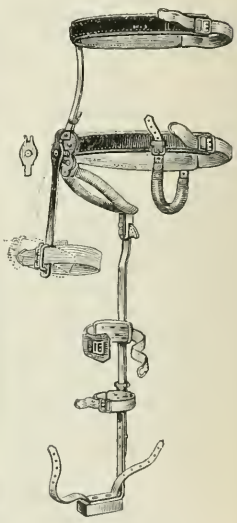


FIG. 20.—Inside Bar and Lateral Traction-lever.

Patients with deformity should be put to bed with two lines of extension, one in a line with the axis of the shaft and deformity, and the other at right angles to the shaft. Then when the deformity is overcome I place them

on a lateral traction fixation-splint, which I devised, with a high shoe on the well limb, and a pair of crutches, and allow them to take plenty of out-door exercise. A glance at the cuts will convey the idea.

The thoracic portion is necessary to fix the joint. *It is argued that the patient cannot sit down. This is incorrect.* The patient sits on the *side of a higher chair and the leg and splint fall to the side.* Sayre says the patient's leg must stick out and be in the way.

So must it do when his knee-splint is adjusted. He also says anchylosis must result from this fixation, that motion is necessary to prevent this accident. *I have not observed bony anchylosis nor angular deformity in over two hundred cases, many of whom have been fixed from one to four years without motion.*

Sayre's knee-splint fixes the knee by extending from below to above the knee without a joint. If fixation is good for a diseased knee, why is it not good for a diseased hip? Is there any difference in the treatment of the same diseases, whether in the hip or in the knee? Should we have a plan of fixation for the knee and motion for the hip?

Shaffer's statistics *show anchylosis in about sixty per cent. of his cases reported. He uses the long traction splint, essentially the same splint used by Sayre, Taylor, and others—one that permits of free motion at the hip-joint. The patient is allowed to walk upon the splint, and nearly every case recovers with angular deformity. This is wholly unnecessary. No case need recover with bony anchylosis or angular deformity.*

I do not pretend to have solved all the problems of the causes of the deformities occurring in morbus coxarius; but I offer this paper as a preliminary one to further study of this most complicated joint in a condition of disease.

FIRST AID TO THE INJURED, FROM THE ARMY STAND-POINT.[1]

By MAJOR CHARLES SMART, U.S.A.

Provision for first aid to the injured has been the subject of earnest study by medical officers of our army for several years back. The War of the Rebellion gave the Army Medical Department a large experience which has not been altogether lost by lapse of years; for although most of those who were personally engaged on the great battle-fields have dropped from the ranks of active workers, many of them have placed their views on record or impressed them on younger officers who have served with them as subordinates.

In the way of efficient arrangements for the administration of first aid in our military service there have been two obstacles which greatly delayed our progress. Ordinarily the paramount duty of a military bureau in times of peace is to keep itself in training for the emergencies of future war; but the quarter of a century of peace and prosperity enjoyed by our country since the close of the Civil War has been so beset with Indian hostilities that the Medical Department has had little opportunity of keeping itself in proper training. This seeming paradox is due to the fact that the conditions of field service against the Indian tribes differ so radically from those of civilized warfare. Under the latter there is always some place of relative safety toward the rear or base of supplies where the wounded may be gathered and become the object of systematized care, no matter what may be the issue of the contest. Under the former, on the contrary, there is no such place. There is no rear for the men of a cavalry troop assailed by Indians many days' march from the nearest military post; there is no protection for the wounded save what is afforded by the nature of the ground held by their comrades, and every available man must fight until the savage enemy becomes disheartened and withdraws, or is driven off by fresh arrivals on the scene of action. Systematic methods for aid to the wounded have little opportunity for development under such conditions. Witness the fate of General Custer and the men of the Seventh Cavalry at the Little Big Horn River. Assistant-Surgeon Lord and his hospital men merely accompanied the soldiers to their death.

The difficulty of providing first aid to such expeditionary columns, operating in a country impassable for wheeled vehicles, by a system which, on enlargement, would meet the necessities of civilized warfare, was one of the obstacles which delayed the progress of the Medical Department of the army in this direction until the past few years. The other obstacle was the failure of that vague power known in military parlance as superior authority to provide suitable men for hospital purposes. Medical officers generally got what they wanted during our great war on account of the extent and importance of their field of practice. Thus, when a medical director called for certain men for hospital duty, he usually obtained the good men he asked for. After the war the whole military establishment fell back almost to its ante-bellum status, and when the medical officer of a military post asked the commanding officer of that post—probably the captain of the only company stationed there—for certain men for hospital work, it by no means followed that he got the men he asked for. The commanding officer disliked to lose good soldiers from the ranks, but readily spared any man who was broken down, valueless from innate stupidity, or worse than worthless from dissipation. The men whom he could get, not the men whom he wanted, were those that the medical officer had to prepare for the duties of giving first aid to the injured; and afterward, when, by dint of care and assiduous personal attention to their physical and moral well-being he had repaired the broken constitution, awakened the intelligence, uprooted the evil habits, and endowed these men with possibilities of future worth, they were probably transferred to the ranks and the hospital provided with substitutes as worthless as those that had originally been sent. After laboring in vain to build a hospital system with such bricks, the most enthusiastic medical officer generally subsided into a state of resignation, or gave vent to his suppressed energies by formulating for the benefit of the Surgeon-General what seemed an Utopian dream of a hospital corps, every member of which was sober, trustworthy, and intelligent, and fully conversant with every duty that the exigencies of the service might call upon him to perform. Not, indeed, that the Surgeon-General was ignorant of all this, but that superior authority was slow to move the wheels of progress out of the old-time ruts.

However, in 1887, Congress was led to appreciate and remove one of these great difficulties in the way of first aid to the injured soldier by authorizing the organization of the Hospital Corps; its members to be selected, educated, drilled, and disciplined by the medical officers themselves; whereupon these officers began earnestly to build up the organization and to so systematize its work that the same principles would regulate its action in times of peace as in times of stupendous war. This work is now well in progress, but with its methods the present paper has no concern, as it is limited to the executive details of first aid. To understand these details, however, a slight reference to certain of the administrative methods is needful.

General aptitude or intelligence, with some primary or elementary education, is a *sine qua non* to enlistment in the Hospital Corps. On this selected soil the medical officer has to raise all the technical knowledge of disease and injury that is necessary to enable the individual to do good and not harm when his responsibilities come upon him and he is face to face with some appalling accident with no intelligence but his own to guide the hand that is to succor. All men, citizens or soldiers, who are to render first aid must have more or less of this knowledge, because the clearer their perceptions of what

[1] Read June 17, 1893, at the meeting of the International Congress of Charities, Correction, and Philanthropy, Chicago, Ill.

is to be done the greater will be their self-possession and ability to act. People generally lose their heads in the presence of accident and suffering. The man who knows something of what has to be done preserves his presence of mind. If he has been familiarized by drill in the management of emergencies with the idea of his own responsibility, he retains his presence of mind and ability to do good although knowing little of the conditions or special treatment of the particular case. The advantages of drill in first aid are obvious; but its importance to the Hospital Corps soldier is vastly greater than to the citizen Samaritan. Drill and its correlated discipline have to support him in his duties to the injured under the appalling knowledge that he is himself liable to be struck down at any moment. He must retain his presence of mind not only when confronted with death and injury to others, but when every rifle-shot and bullet hum suggest the imminence of personal danger. Great courage or thorough discipline, or an adequate combination of the two, is required under such conditions for the performance of duties calling for the exercise of knowledge, tact, delicacy, and a humane consideration for the sufferings of others.

Behold, then, the men on whom the injured of the army have to rely, men to whom no Christian would deny the honor of wearing the cross of Christ as the badge of their military service. The points next in order are, what do they do, and how do they do it?

First aid to the injured in war has not the same extent of significance to the soldier as to the citizen. To the latter it means all that is done on behalf of the wounded until they are *en route* from the privations, exposures, and dangers of the battle-field to the shelter, care, and comforts of permanent hospitals. In fact it comprehends the whole battle-field service of the Army Medical Department—the gathering of the fallen by the litter-bearers, their transportation by ambulance wagons to the field hospitals, and their preparation there for transmission from the lines of the army for their homeward journey by way of the post or station which is the base of military operations. To the soldier, however, first aid is that which finds him where he fell on the skirmish line or line of battle, which puts a canteen to his lips to revive him, stops the flowing blood, straightens the fractured limb, giving him cheering words meanwhile, and carries him to the friendly side of the house a little way off, or behind the breastworks, or over the brow of the hill, where he will be safe from stray bullets, and have the doctor help to make him comfortable before transferring him to an ambulance for transportation to the field hospital. When first aid has done these things it has done all that the soldier expects, all that he wants, for when he reaches the canvas tents of the hospital where the skilled operative surgeons of each brigade are at work, and where all the resources of the medical department are drawn upon for the comfort of the wounded, he takes his bowl of beef-tea and disposes of himself to rest, satisfied that whatever may hereafter be done on his behalf is not in the nature of first aid but in that of regular hospital treatment for his wounds. The soldier's view is the correct one and is the analogue of the citizen's view of first aid in all cases excepting only that of the battle-field.

When the command with which a medical officer and a detachment of the hospital corps are on duty is in line of battle and in momentary expectation of the outburst of the storm of war, the nearest shelter from musketry fire is sought whereat to establish the collecting- or dressing-station for the wounded. When the same command is in camp with no danger of immediate hostilities the medical officer and his men are in camp also and ready at all times to render aid in accidents and injuries. Again, when in times of peace the troops form the garrison of a military post, the medical officer and his men are still to be found in the immediate vicinity of the quarters of the soldiers, the medical establishment being then known as the post hospital. This hospital, however, is from our present point of view merely the collecting-station of the battle-field, so altered by the various additions and comforts that have crystallized around it during the unruffled quietude of the times as to be scarcely recognized at first glance. Here is to be found all that contributes to first aid to the injured and with it much more that is of high value; but with this surplus we are at present not concerned. Does an accident happen at this military post, immediately a litter squad, equipped as for the field of battle, is on the ground to care for the injured man and bring him to the post hospital. Does the command participate in some military parade, the medical officer and his detachment, with litters, ambulances, and field equipment, are there also, not for show, but for first aid. Where the command goes there goes the hospital corps; and when the former cuts loose entirely from the post, as frequently happens in our Western service, the latter does so likewise and is as fully prepared to meet the emergencies of field service as it was to meet the accidents of garrison life. It carries with it its litters and other requisites of first aid, and its ambulances as the basis of a hospital system. When several such commands meet and are united into one force under the senior commander the several hospital corps fragments coalesce into one whole under the senior medical officer. When hundreds of such commands are gathered together in time of war the medical organization progresses step by step with the organization of the commands into an army, and when this is completed no part of the column, when on march, nor of the line when formed for defence or attack, is left without its medical officer and his orderly and his assignment of litter-bearers for first aid to the injured.. If one part of the line suffers more severely in battle than another, the supervising authority of the medical corps on the field sees to it that a corresponding increase of force is placed on their duty there; but the working elements of this force continue to be the medical officer, his orderly, and his litter-bearers.

A provision of this kind is of immense value to an army irrespective of all considerations of first aid to the injured. The assurance that he will be taken care of should he fall exerts a steadying influence on the soldier which improves the morale of the fighting line. In the progress of battle, however, the very integrity of this line is often dependent on the vigorous and efficient action of the hospital corps. Ranks are speedily depleted if men drop out to assist a wounded comrade to the rear, and the thinning of the ranks has a serious influence on the spirit of those who remain. So thorough a depressant is this depletion that military men have made calculations as to the percentage of loss which an organization can sustain without losing its identity and disappearing from its place in the line. An efficient hospital corps which comes to the front for the wounded deprives the men of all excuse for leaving their position. It is true our present army regulations provide for the education in first aid of four men from each company. These men are called company bearers, and their duty outside of the regular duties of a soldier is to assist the wounded from the field until relieved by the members of the hospital corps, when they return to their places in the firing line. The company-bearer system is now recognized as a mistake. It is a survival from the time when there was no hospital corps, and when the wounded had to find their way to the rear with such assistance as their friends could give them. It was embodied in our hospital corps law as a source of recruits for the corps which was to be organized and sustained by transfers from the line of the army, and those who took kindly to the duties of company bearers were naturally the best men for transfer. Now the hospital corps can enlist its men from any source, and the only method of showing the need of company bearers is to show that the litter squads of the hospital corps are incapable of performing their duty.

The litter consists of a canvas bed 6 feet long and 22 inches wide, made fast to two poles 7½ feet long, and

stretched by two jointed braces. The ends of the poles form the handles, 9 inches long, by which the litter is carried. The fixed iron legs are loop-shaped, 4 inches high and 1¾ inch wide. A sling is used with it for long-distance carriage. It is carried closed or strapped, and is opened only for purposes of drill or inspection and for actual service in the transportation of the sick and wounded.

The bearers work in squads of four men, known individually as No. 1, 2, 3, and 4. The litter is carried by 2 and 3; 1 and 4 are on either side, and the former is chief of squad. All carry water and dressing-packets, but No. 4 has, in addition, a pouch containing field surgical necessaries. These men march into the exposure of the field for their wounded. When a patient is discovered 1 and 4 may run ahead to determine his condition. In the various accidents of civil life or of military garrison life this oftentimes requires much knowledge, with time and patient inquiry and investigation. On the battle-field the questions are simpler, being mainly reduced to a determination of the conditions that bear upon transportation on a litter for a short distance and a corresponding time. Do shock, hemorrhage, or fractured bones have to be cared for, a draught of water, with or without a stimulant, a field tourniquet and intelligent care in handling one or more are at hand as required; and perhaps by the time Nos. 2 and 3 have arrived with the litter, No. 1 is ready to command: "At patient;" right (or left as he may consider best), when the members of his squad, each at his post, kneel on one knee by the wounded man. "Prepare to lift; lift," he commands, and the patient is immediately removed from the ground and resting on the knees of three of the bearers, while the other places the litter along their front. "Lower patient," and the injured man is laid gently on the litter and adjusted thereon according to the requirements of his condition or injury. Then, at the command, "Prepare to lift; lift; forward, march," they are off with their burden, moving rapidly but without haste and without jolting or other unevenness of movement. All this is accomplished almost automatically. The orders are given and obeyed, and the wounded man is on his way from the exposure of the field in less time than would have been lost by intelligent but undrilled men in determining how best to raise their patient from the ground. The best methods have been studied for them and practised by them, so that when moments are precious and delays dangerous there is no time lost by ignorance, awkwardness, or indecision. Even in the adjustment on the litter, practice makes it a matter of course to support and comfortably raise the head by an overcoat, blanket, blanket-bag, knapsack, or other suitable article picked up from the field; to raise the patient further if there is difficulty of breathing, but to keep him low if, from shock or loss of blood, there is danger of fainting; to place him on his back or injured side if the abdomen is wounded, with a pillow under his knees to keep them bent; to place an injured arm over the body, and to bind a fractured leg to its fellow for the sake of its support.

The litter squad may not do any more for the wounded man than has been stated, but its members can do more if there is time, opportunity, or necessity. They do no more if other wounded men are awaiting removal, if there is notable danger from the fire of the enemy, or if the collecting-station be close at hand. What they are able to do may be understood from a glance at the contents of the hospital corps pouch which No. 4 carries slung from his right shoulder to his left hip. It contains a candle and matches, lest there should be need of artificial light, the tin case acting as a candlestick when required. Then there are two field tourniquets and a vial of aromatic spirits of ammonia for dealing with internal hemorrhage and shock, as already instanced. Held together in a small leather book are a pair of scissors, dressing-forceps, jack-knife, pins, needles, and thread. Packed loosely in the pouch are three five-yard rollers of two and one-half inch antiseptic bandage, a strong metal box containing fifteen yards of adhesive plaster one inch wide, another box containing one-half ounce of two per cent. carbolated vaseline, a hard-rubber iodoform sprinkler, two sponges in a water-proof bag, a first-aid package, a two-ounce packet of sublimated lint and another of boric wool, and lastly, two wire splints with six strong tapes and buckles. The first-aid package, an extra one of which is carried by each of the members of the squad, requires to be opened to appreciate its possibilities. Its wrapper is strong rubber-cloth, nine inches square, and its contents two yards each of sublimated gauze and cambric, four inches wide, a triangular bandage, and two safety-pins. The bandage measures fifty inches along its base, and half of that measurement to its apex; it is stamped with figures showing the method of its application to the various parts of the body, either as a support or as merely retentive of dressings.

The intentions of first aid to a wound are to arrest hemorrhage, remove foreign bodies, prevent bacterial invasion, and protect from injury during transportation. The wound has to be laid bare, to effect which the scissors, if need be, are used along the seams of the clothing. Dried and clotted blood, fragments of cloth, or other foreign bodies have to be removed, capillary, venous, or slight arterial hemorrhage to be checked, and the whole thoroughly cleaned, dried with antiseptic gauze, dusted with iodoform, and protected with a compress of gauze and a suitable bandage. Adhesive strips are used to secure apposition of the sides of incised or gaping wounds. If there is fracture of the bones of the arm or forearm, the splints have to be applied with the triangular bandage as a sling. The splints may also be used in fractures of the leg and thigh; in the latter as aids to a long splint obtained by improvisation. The members of the litter squad can apply rifles, sword-blades, and scabbards, telegraph-wire, straw, strong grass or rushes, as temporary supports in fractures; they can utilize all kinds of cardboard and other stiff materials, and with their heavy sheath-knives they can hew the splint that is required out of that which at first sight might look like most unpromising timber.

At the collecting- or dressing-station are gathered many men who were able to reach this place of aid and comparative safety without assistance. The non-commissioned officers and men of the hospital corps attend to these cases while the medical officer deals with those of greater severity. In many instances the first aid given by the latter differs in no way from that which would have been given by his litter squad, but in every case he is prepared by the higher grade of his knowledge to render more valuable services if such should be required. His orderly, who always accompanies him, carries his pouch of field necessaries, such as are found in that of the litter squad, but containing in addition an Esmarch's tourniquet, a four-ounce bottle of chloroform, a hypodermic syringe with tablets of morphine, and a book of button-holed tags, by which he may convey information to the hospital surgeons concerning a particular case, fastening the tag over a button to the patient's breast. This pouch is furnished also with a small leather case of six screw-top vials, containing tablet doses of acetanilid, sulphate of quinine, compound cathartic pill, of brown mixture and diarrhœal remedy, and lastly, tablets of corrosive sublimate and sal ammoniac, each equal to one pint of a .001 sublimate solution. Slung on his own shoulder the medical officer carries his field-case, which, if examined, will show to what extent he is prepared to aid the injured. In it there are a bistoury, scalpel, and amputating knife, the blade of the last four and three-quarters inches long, a saw, scissors, artery, bone, bullet and dressing-forceps, Nélaton's probe, director, aneurism needle, tenaculum and serrefines, needles, ligature silk and wire, and a catheter.

The wounded brought in by the litter squads are examined by the medical officer without disturbing the dressings except in those cases in which there are obvious reasons for so doing. If they have been carried off

hurriedly, undressed, they receive immediate attention at the hands of the non-commissioned officers and men of the station, under the supervision of the medical officer, who gives his personal skill to special cases. The first-aid dressings are of the simplest character in all cases, in which it is evident that careful examination or operation will be needful at the field hospital. Hemorrhage is arrested by substituting the ligature for the tourniquet, which was applied by the litter squad; bullets, fragments of shell, or other missiles are extracted; fractured bones brought in unsecured are bound up in the best immovable dressings that are available, and tags are buttoned upon those for whom prompt attention of the operating staff of the field hospital is desired. The wounded are then transferred to the ambulances, each of which starts for the hospital as soon as loaded and returns as soon as unloaded, for further service at the front. The ambulance carries two men inside lying down, and one who is able to sit in front with the driver, or four or five inside seated and one lying. The change to the ambulance and thence to the interior of the field hospital does not involve any disturbance of a severely wounded man, for it is the litter, not the patient, that is moved. The litter on which he is first placed forms his mattress on the floor of the ambulance, and his bed when in the field division hospital. Men with flesh wounds not suffering from shock accompany the ambulances on foot, or start for the hospital with a non-commissioned officer of the hospital corps in charge.

It may be observed that the field surgical case of the medical officer is more elaborate than seems called for by the work above indicated. A pocket-case containing a scalpel, bistoury and probe, tenaculum, dressing and artery forceps, silk, needles, and scissors, would suffice, and it is probable that in the field medical equipment of large armies the medical officers assigned to duty at collecting-stations would carry only such a case. In our present service, however, where small commands take the field, the medical officer may have not only to give first aid, but to do all that is needful for his wounded during the days that may elapse before he can transfer them to the post hospital of some permanent station. The light field-case was provided for his necessities. Cavalry commands operating in regions impassable to ambulances carry their medical and surgical supplies on pack animals, and the travois is provided for the transportation of severely wounded men. The travois consists of two strong elastic shafts, each fastened by its front end to the side of the saddle of a mule or horse, the rear ends trailing on the ground nine or ten feet behind the animal. They are kept in proper position, apart from each other, by cross-bars, and the litter is suspended between them. When there is no travois the men of the hospital corps can construct one by cutting suitable poles and lashing on the cross-pieces. This is the Indian method of transporting the disabled.

After a battle the field is searched by the hospital corps for those who have fallen and been obliged to remain on the ground either on account of their disabled condition or by reason of the danger attending any attempt to get away. The conditions under which this duty is performed are exceedingly various, differing perhaps in every engagement, but the first aid brought to the wounded soldier is always prompt and efficient, as above described.

In times of peace the special education of the hospital-corps soldier is carried so far as to enable him to act intelligently when confronted with various accidents and emergencies in the absence of medical supervision. He is thus qualified to enter on a more extensive field of duty than is offered to a litter-bearer on the battle-field. Even in times of peace and slow promotion he is on his way to an acting hospital stewardship, and there are few of our acting stewards who are not looking forward to a steward's position. In case of the expansion of our army for war service this educated body of sanitary soldiers would fill the non-commissioned positions in the corps and permit of its expansion by recruiting merely for the litter-bearer and ambulance companies. For the duties of field service in time of war the education of the litter-bearer in first aid need not be very extensive. The primary management of patients suffering from gunshot wounds is soon learned by intelligent men, and only such should be enlisted for the corps. Moreover, State troops mustered into the service of the United States would bring to the corps their proportion of men more or less trained in army methods. Drill and discipline would soon fit the new men for the work before them and enable the medical department to meet its responsibilities with full assurance of satisfactory results.

Aid given by the hospital-corps soldier on the field of battle or in the accidents of garrison life differs in no respect in its professional details from that furnished by civilians in injuries of a like character. A fractured femur requires the same treatment whether the patient is a soldier run over by a caisson or a laborer by a dray. The aid itself differs from that afforded by competent civilians only in the systematic manner in which it is brought to bear in a given case. The same knowledge of conditions and requirements is needful to the citizen Samaritan and to the sanitary soldier, but the efficiency of the latter is due to his drill and discipline. These, intended to support him in the discharge of his duties when exposed to personal danger, are naturally always sufficient for efficiency when there is no personal danger to distract attention from the care of the injured. When acting officially the efficiency of the soldier is also secured by a judiciously selected equipment which is always on hand for his use. In fact, drill, discipline, and equipment form the tripod by which the efficiency of the hospital corps is sustained and first aid rendered to the injured soldier both in times of peace and in times of war.

Since the accidents of peace among soldiers are so satisfactorily met by these military methods it might be well to inquire to what extent they are or ought to be employed in civil life. This inquiry must, however, be taken up at another time or by some other individual, as it lies beyond the lines prescribed for the present paper.

INSOLATION.

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During the summer of 1892, in the months of June and July, there were twenty-two cases of heat-stroke treated in St. Catharine's Hospital, Brooklyn. The majority of the cases reported are from notes taken at the time they were under observation, but in very few could any previous history be obtained. In every case there were cerebral symptoms, which in some were mild, while in others there were symptoms of violent mania, and in others profound coma. In the twenty-two cases under treatment nine were comatose and with high temperature; five had violent maniacal symptoms with high temperature; two had mental confusion, headache, and slight elevation of temperature; four had mental confusion, headache, and normal temperature: two had severe dyspnœa, headache, and normal temperature.

The chief object in the treatment of cases of sunstroke, in which there is an elevation of temperature, is, we believe, to reduce the temperature as rapidly as possible, and this is most readily accomplished by showering the patient freely from head to foot with ice-cold water. The method we adopted in St. Catharine's Hospital was to strip the patient of all clothing and place him on a woven wire bedstead, the head of which was elevated, and beneath the patient was placed a rubber cloth so arranged that the water could run off into a pail. An ordinary sprinkling-pot was used, and the patients freely showered with water as near 32° F. as possible. An ice-cap was applied to the head, and in a few cases the body and extremities were rubbed with ice. The rectal temperature

should be constantly watched, and as soon as it becomes normal the ice-water is discontinued and the patient removed to a dry bed, but in all cases the ice-cap was continued from twenty to forty-eight hours longer. In cases where the temperature was very high, ice-water enemata were given in addition, and in two or three cases antipyrin was given when the temperature had been nearly reduced to normal by ice-water. In the cases with normal temperature the application of the ice-cap was followed by a rapid relief of the headache and confusion. In the two cases with dyspnœa the ice-cap quickly relieved this distressing symptom.

We found that in nearly all of the cases with a very high temperature, the temperature could be reduced to 100° F. in twenty minutes, and to normal in less than an hour. In the maniacal cases it was remarkable to see how quickly they became quiet and recovered consciousness under this treatment. The recovery of many of the cases is due to the ambulance surgeon, Dr. Kirke, who, in the majority of the cases with high temperature, applied ice to them before and during their removal to the hospital, and if the temperature of these cases could have been taken at the time they were found it would in many cases, no doubt, have registered higher. It is of the utmost importance to use prompt treatment in these cases. Two of the four fatal cases were brought to the hospital by the patrol wagon, and no ice used until they reached the hospital.

In those cases with feeble heart-action digitalin and glonoin were given together, and used freely until some effect was obtained. Feeble heart-action was not a contraindication to the use of ice-water. Strychnine and atropine were given when the respiration seemed bad. For the convulsive movements, morphine in $\frac{1}{4}$ gr. doses gave excellent results. The continuous application of cold to the head gave speedy relief to the headache; and its use for from twenty-four to forty-eight-hours seemed to prevent the cerebral disturbances which so often follow severe cases of heat-stroke, as every case of recovery left the hospital without any apparent cerebral disturbance. We append here all the cases treated, some of which were moribund, or nearly so, at the time of their admission. All the cases are males.

Case I.—Aged thirty-eight; laborer; admitted June 13, 1892. Was not removed to hospital until two hours after the onset of attack. On admission rectal temperature 106° F., pulse feeble and rapid, respiration bad, and patient comatose. He was stripped, and ice-bags applied to head and chest, and his entire body showered with ice-water for two and a half hours. Alcohol and glonoin were given hypodermatically, and galvanism applied to the præcordia. After two and one-half hours the temperature was normal, heart-action stronger, and patient would answer questions fairly rationally. He was removed to a dry bed, and ice-cap continued to head for forty-eight hours. There was no subsequent rise of temperature, he became entirely rational, and on June 16th was discharged, recovered.

Case II.—Aged thirty-six; laborer; admitted July 25, 1892. Was exposed to sun all day, and in afternoon felt dizzy and soon afterward became unconscious, remembering nothing until two or three hours after his admission. He was brought to the hospital by the ambulance, and on admission rectal temperature was 106° F., pulse feeble, and there was partial coma. Ice-cap was applied to head, and patient showered from head to foot with ice-water. Temperature was reduced to normal in forty-five minutes. He was put on milk diet, and ice-cap continued. July 26th, rational, but has slight headache and some diarrhœa. Ice-cap continued twenty-four hours longer. July 28th, discharged, recovered.

Case III.[1]—Aged thirty-three; engineer; admitted July 26, 1892. Intemperate in habits, and for several months previous to attack had been treated for gastritis. While working in a heated atmosphere felt some dizziness and muscular weakness, and soon afterward became unconscious. Was brought to hospital by the ambulance, and the surgeon applied ice to him on the way to hospital. On admission rectal temperature 110° F., profound coma, relaxed sphincters, noisy expiration, convulsive movements of arms and legs, heart-action feeble. The ice-cap was put on patient's head, and he was showered with ice-water from head to foot. In forty-five minutes his temperature had been reduced to 100$\frac{3}{5}$° F., and the ice-water was discontinued as his circulation was bad, and respiration was shallow and irregular. He was covered with blankets and given $\frac{1}{60}$ gr. atropine, and three minims of glonoin. Convulsions had ceased, and he would answer questions with slight intelligence. One hour later he became restless and excited, and the rectal temperature was 105$\frac{3}{5}$° F., and there were general convulsions. The ice-water was resumed, and continued three hours. During this time the pulse was 120 and very feeble, and at one time the radial pulse could not be felt, the patient apparently being in articulo mortis. He was given three minims of glonoin and $\frac{1}{60}$ gr. digitalin, after which the pulse became stronger and reduced in frequency. The dose of glonoin and digitalin was repeated after two hours, with further improvement in the heart's action. For the convulsive movements he was given $\frac{1}{4}$ gr. morphia, after which he became quiet. Ten hours after admission he was quiet, fairly rational, and said he felt well; temperature, 99$\frac{1}{5}$° F. The ice-cap was continued on head. He soon slept well, but on the following day was not entirely rational, and was troubled with diarrhœa and vomiting. Temperature on the evening after his admission was 100$\frac{1}{5}$° F., pulse good, and he complained of no headache. July 28th, had much diarrhœa and vomiting. During the evening his temperature rose rapidly, he became restless, boisterous, and excited, with hallucinations and delusions, and at midnight his temperature was 106$\frac{3}{5}$° F., and the arterial tension high. He was immediately stripped and showered with ice-water from head to foot. In one hour his temperature was normal, and he was more rational, but still excitable and talkative. He was given morph. sulph., gr. $\frac{1}{4}$, and atropia, gr. $\frac{1}{100}$. In half an hour he was quiet and sleeping well. On the following day he was quiet and rational, but again troubled with vomiting. He was given peptonized milk and $\frac{1}{8}$ gr. cocaine every three hours. Temperature in the evening was 100$\frac{3}{5}$° F. August 7, 1892, temperature 99° F., troubled some with vomiting, but otherwise doing well and is quite rational. Contrary to our advice, he is removed from hospital by his friends.

Case IV.—Aged thirty-six; pedler; admitted July 26, 1892. On admission was suffering from severe dyspnœa and slight headache, with history of exposure to sun all day. Heart-action feeble, and great prostration; temperature in axilla normal. Inhalation of five minims of amyl nitrite produced no effect. Ice-bag to head and rest in bed were followed by rapid improvement in symptoms. After two hours the dyspnœa and headache were entirely relieved, and on the following day he was feeling as well as ever. Ice-cap was continued twenty-four hours. July 28th, discharged, recovered.

Case V.—Aged eighteen; bartender; admitted July 26, 1892. He suddenly became excited, noisy, and violent, would resist everything. He was found in this condition by the ambulance surgeon, who used ice on him while conveying him to the hospital. On admission he was quiet and rational, and his temperature but little above normal, but his arterial tension was high. Ice-bag was applied to head for twenty-four hours. July 28th, discharged, recovered.

Case VI.—Aged nineteen; baker; admitted July 27, 1892. While walking along the street suddenly became excited, violent, and unconscious, and was found in this state by the ambulance surgeon, who used ice-water on him freely while conveying him to the hospital. He recovered consciousness in the ambulance before reaching the hospital, and on his admission he was quiet; temperature 101$\frac{2}{5}$° F.; there was some confusion, and he com-

[1] Since writing this article we have learned that Case III. died one month after leaving the hospital, with symptoms of gastro-enteritis.

plained of severe headache. Ice water was used from head to foot until temperature was normal, and the ice-cap retained on head thirty six hours. On following morning his mental condition was good, but he had slight headache, which, however, soon disappeared, and he was discharged July 29th, recovered.

Case VII.—Aged sixty-one; coachman; admitted July 29, 1892. When found was in a maniacal condition and would resist everything. He was put in the ambulance and pieces of ice placed next to the body. On admission to hospital rectal temperature was 107° F., heart-action forcible, and arterial tension high; mentally he was quiet, but dull and indifferent. He was showered with ice-water, alternating this with rubbing the body with pieces of ice. After one hour arterial tension was lowered and rectal temperature was 101⅘° F. Ice-water was continued one hour longer, and temperature at this time was 101° F. The ice-water was now discontinued, the ice-cap retained on the head, and he was given grs. xx. antipyrin. His temperature slowly fell to normal, and on following day he felt well and his mental condition was good, excepting some slight mental dulness July 30th, removed by friends.

Case VIII.—Aged sixty; coachman; admitted July 28, 1892. After premonitory symptoms of dizziness and prostration he suddenly became unconscious, and was brought to hospital in ambulance. Ice was applied freely to head and body by the surgeon on his way to the hospital, and the patient recovered consciousness before reaching hospital. On admission, temperature was 106° F., heart-action forcible, arterial tension high, and there was some mental confusion though he was not unconscious, but sphincters were relaxed. He was showered with ice-water from head to foot, and after one hour the ice-water was discontinued as the temperature was normal. He was now given grs. xx. antipyrin and placed in a dry bed. The ice-cap was retained on head forty-eight hours. There was no subsequent rise of temperature, and the patient was discharged, August 1st, recovered.

Case IX.—Aged twenty-one; occupation unknown; admitted July 25, 1892. On admission patient had headache with much mental confusion, and there was some prostration, but his temperature was normal. The application of the ice-bag to the head was followed by prompt relief of all symptoms, and he was discharged, July 26th, recovered.

Case X.—Aged eighteen; occupation unknown; admitted July 25, 1892. When found by the ambulance surgeon the patient was in a maniacal condition, struggling and resisting everything. He was placed in the ambulance and ice-water and ice freely used by the surgeon while conveying him to the hospital. On admission he was quiet, but much confused; rectal temperature was 103½° F. He was showered with ice-water from head to foot, and in half an hour his temperature was normal and he was rational. The ice-cap was applied to his head until his discharge. A few hours after admission he had a severe pain in his right ear, lasting a short time. On the following morning he was mentally clear and feeling well. Taken home by his friends, July 26th, recovered. He was seen three days later and was still doing well

Case XI.—Aged thirty; occupation unknown; admitted July 25, 1892. Was brought to hospital by patrol wagon, and on admission was very maniacal, violent, noisy, and incoherent, with hallucinations of sight and hearing, presenting a typical and classic picture of most violent acute mania. His rectal temperature on admission was 106½° F., heart-action forcible, and arterial tension high. Before obtaining his temperature, in taking which there was much delay on account of his maniacal state, we did not make a diagnosis of heat-stroke, and consequently did not adopt measures for his relief until about one hour after his admission. Four years before admission he had an attack of sunstroke, followed by an attack every year since. For some time previous to present attack he had been very intemperate. When first admitted he was given $\frac{1}{60}$ gr. hyoscyamin without any apparent effect. As soon as temperature could be ascertained the ice-water treatment was commenced, and in twenty minutes there was a marked change for the better in his condition—he became quiet and much more rational; in one hour his temperature was nearly normal, he was perfectly quiet, and conversed rationally about his condition. He was given xx. grs. of antipyrin and the ice-water was discontinued, but the ice-bag retained on head. Nine hours after admission he became delirious, his temperature was 104° F., and the arterial tension high. Ice-water was again used, and the temperature soon reduced to normal, but he did not become as rational as before, and the arterial tension remained high. During the following day his temperature would rise at intervals, but could be readily reduced by ice-water. On the second night after his admission his temperature rose to 105½° F., and he became noisy and incoherent. During the night two $\frac{1}{12}$ gr. and one $\frac{1}{60}$ gr. doses of hyoscyamin were administered, with only a temporary sedative effect. His temperature would rise as soon as the ice-water was discontinued. On the morning of the 27th, the third day of his treatment, venesection was decided upon, and about one pint of blood was withdrawn. Two hours later he spoke quite rationally, and seemed much better, but he soon passed into a condition of low muttering delirium, his pulse became feeble, and he died forty-eight hours after admission. No autopsy could be obtained. There seems but little doubt that this case was a combination of heat-stroke and delirium tremens.

Case XII.—Aged twenty-two; occupation unknown; admitted July 26, 1892, with confusion, prostration, and headache; temperature normal. Ice-bag was applied to head for twenty-four hours, with relief of all symptoms. Discharged, July 26th, recovered.

Case XIII.—Aged twenty-nine; occupation unknown; admitted July 29, 1892, with severe dyspnœa, prostration, and headache. There was no elevation of temperature. The ice-cap was applied to head for twenty hours, and after three hours the dyspnœa was entirely relieved, and on the following day he was feeling entirely well. Discharged, July 30th, recovered.

Case XIV.—Aged twenty-nine; admitted July 29, 1892. He was brought to the hospital by the ambulance, and ice applied during his removal. On admission rectal temperature was 111° F., heart-action very feeble, shallow and irregular respiration, profound coma, tonic and clonic convulsions. By showering with ice-water the temperature was reduced to normal after two hours. Digitalin, atropine, morphia, and glonoin were given hypodermatically. Pulse and respiration would not react to stimulants, and continued bad throughout. Every time the ice-water was discontinued his temperature would rise. There was no return to consciousness, and he died twenty-two hours after admission.

Case XV.—Aged forty-five; baker; admitted July 29, 1892. Was brought in by the ambulance, the surgeon using ice freely during his removal to hospital. On admission temperature was 102½° F. (temperature was taken through a relaxed sphincter, while the patient was lying in ice-water), there was profound coma, general convulsions, sphincters relaxed, respirations irregular, pulse fairly strong. Patient was showered with ice-water. He was given hypodermatically ¼ gr. morphine and $\frac{1}{60}$ gr. atropine, after which the convulsions ceased for a short period and the respirations improved. After an hour and a half this dose was repeated. The ice-water was discontinued after two hours, as the temperature was then normal, and there was a gradual return to consciousness. Four hours after admission he was quite rational, was feeling well, and his temperature continued normal. The ice-cap was continued forty-eight hours. Discharged, August 1st, recovered, without subsequent cerebral symptoms.

Case XVI.—Age unknown; admitted July 30, 1892, with same symptoms as Case XII. Ice-cap was applied

to head for twenty-four hours. Discharged, August 1st, recovered.

Case XVII.—Aged thirty-five; admitted July 30, 1892, with slight rise of temperature, confusion, and headache. The ice-cap was retained on head twenty-four hours, and he was discharged, August 1st, recovered.

Case XVIII.—Aged thirty-eight; was brought to hospital by ambulance, July 30, 1892. Pieces of ice were retained next to surface of body during his removal to the hospital. On admission the rectal temperature was 101⅜° F., pulse fairly good, respiration very shallow and irregular, pupils widely dilated, sphincters relaxed, no conjunctival reflex; coma was profound. Ice-water irrigations were used for a short time; atropine and strychnine were given. After one hour the rectal temperature suddenly dropped to 95½° F., but it was taken fifteen minutes after an ice-water enema, and its accuracy cannot be relied upon. He was immediately placed in a dry bed and hot bottles placed about his body and extremities. After two hours the rectal temperature was 100⅕° F., but there was no improvement in other symptoms. He died fifteen hours after his admission.

Case XIX.—Aged thirty-eight; admitted July 30, 1892. Symptoms and treatment were the same as in Case XII. Discharged, August 1st, recovered.

Case XX.—Aged twenty-two; admitted July 30, 1892. Symptoms and treatment were the same as in Case XVII. Discharged, August 1st, cured.

Case XXI.—Aged twenty-eight; was admitted July 29, 1892, and brought to the hospital by patrol wagon. On admission the rectal temperature was 111° F., sphincters were all relaxed, pupils dilated, and there was complete muscular relaxation and profound coma, pulse rapid and feeble, respiration irregular. He was showered with ice-water from head to foot, the body and extremities were rubbed with ice. Respiratory and cardiac stimulants were given. There was no return to consciousness: the heart-action and respiration did not react to the stimulants. Patient died twelve hours after admission.

Case XXII.—Aged twenty-two; admitted August 10, 1892. When found by the ambulance surgeon he was unconscious, with high arterial tension, and temperature was 102° F. Pieces of ice were immediately applied to the surface of his body, and he was brought to the hospital. On admission his temperature was normal, he was partially conscious, but much confused, and complained of severe headache. The ice-bag was applied to his head for twenty-four hours, and on the following morning he was entirely rational, his mind was clear, and there was no headache. Discharged, August 11, recovered.

NOTE ON THE TREATMENT OF DYSPNŒA IN PULMONARY PHTHISIS BY "ROSIN WEED."

By BEVERLEY ROBINSON, M.D.,

NEW YORK.

All practitioners of medicine are, unfortunately, too familiar with the urgent difficulty of breathing which characterizes at times pulmonary phthisis. Occasionally this oppression accompanies the first stage of the disease; more frequently, of course, it is indicative of its terminal period. Whenever it occurs it is always most painful to the sufferer, and distressing to those who witness it.

I have tried to relieve it, in many cases, by the medicinal or mechanical means ordinarily recommended, with more or less success. I have never found, however, any drug preparation which has given me more satisfaction in its treatment than the tincture of Silphium laciniatum or "rosin weed." This tincture, when taken in half-drachm doses, diluted with a little water, will often give very remarkable relief. And not only will it do this when the pulmonary structure is only partially affected with consolidation, but it will also show its power when the lungs contain many cavities and are infiltrated throughout with tubercular deposits. There are cases, unfortunately, in which silphium produces no apparent good results, and why it is I have not been able definitely to determine, further than to assume that the respiratory centres were incapable of further stimulation. Certainly, increase of bronchitis or occurrence of pneumonia did not always explain the fact. I have never known Silphium laciniatum to do any obvious harm to my patients, although, as I have stated, I have seen it remain without appreciable good effect. My attention was directed to the use of this drug several years ago in a somewhat accidental way, and at first when I wished to procure it, and test its therapeutic properties, I thought I had to do with the Silphium cyrenaicum of the ancients, but I afterward discovered my mistake. For a long while I made experiments with rosin weed both at the New York and St. Luke's Hospitals, and occasionally in private practice, and have been tempted more than once to bring it again before the medical profession. For many facts pertaining to the nature, character, and mode of action of Silphium laciniatum I am indebted to Charles Rice, Ph.D., of New York City, so long and favorably known for his erudition and pharmaceutical knowledge in connection with Bellevue and the city hospitals. Formerly, I wrote for tincture of thapsia in my prescriptions, but, as Dr. Rice informs me, this prescription would incur the liability of an unfortunate and injurious mistake. "For some years back," Dr. Rice writes me, "the only preparation derived from 'thapsia' was a thapsia plaster. This represented the irritating and stimulant rosin obtained from Thapsia garganica L., an umbelliferous plant of North Africa and South Europe. An allied species, Thapsia 'sylphyum' Vivian, also of North Africa, is supposed to be the Silphium (not syl.) cyrenaicum of the ancients. As the first-named species, viz., Thapsia garganica, is more common and is supposed to have the same properties, it has been introduced in place of the latter. In fact, under the name Sylvium cyrenaicum, the Paris drug market sells only the Thapsia garganica. Silphium gummiferum has been applied by Elliott to what is now known as Silphium laciniatum L., or 'rosin weed.' The name chosen by Elliott has long been dropped, but the 'rosin weed' has been used in medicine."

Porcher[1] writes that Dr. H. D. Garrison has reported this plant to be an excellent remedy for asthma. According to Dodd[2] it has been used for the heaves, or asthma in horses. This disease is said not to exist in prairies where the plant grows. King[3] states that the plant is affirmed to be emetic, and to be beneficial in dry, obstinate cough. It is said to be powerfully diuretic. R. O. Thompson[4] also writes that the "plant, Silphium laciniatum (polar or rosin plant) possesses great medicinal qualities. Horses fed upon hay with it intermixed are never known to have the heaves. Cattle, sheep, mules, and horses are extremely fond of the heads of this plant while green, as well as mixed with hay. The pure white resinous gum which it contains performs radical cures in all bronchial cases." It will thus be remarked that, especially among animals, but also among men, this plant is recognized to have valuable medicinal qualities in asthma. I have given it on several occasions with manifest benefit to patients suffering with bronchial asthma. I have not thought it was of advantage in cases of cardiac dyspnœa. I wish to have my observations confirmed or discarded in phthisis, and for this reason would request those who read this communication to make use of the tincture of "rosin weed" and let me know their results. The tincture was made for me at St. Luke's Hospital according to the following formula:

℞. Fl. extr. silph. laciniatum (root) . . . . . f℥j.
Alcoholis . . . . . f℥iv.
Aquæ . . . . . f℥ij.
M. Filter. Sig.: ʒss.–ʒj. as a dose.

[1] Southern Fields and Forests, p. 460. Charleston, 1869.
[2] The American Horse and Cattle Doctor.
[3] American Dispensatory.
[4] Botany of Agriculture of the Rocky Mountain Basins. (I owe this citation to the courtesy of Parke, Davis & Co., Detroit.)

In conclusion, I would add that I am surprised to notice how little emphasis certain eminent authorities, like Loomis, Strümpell, Osler, etc., place upon the subjective sensation, "dyspnœa" in advanced phthisis. Personally, I have found it to be a most painful symptom, and one, also, very difficult to relieve. Hence this article. Others, too, like Fagge,[1] write: "Toward the last, orthopnœa is sometimes present in the most extreme degree, the patient gasping for breath, and having the face and hands livid and purple and bathed in sweat." Or Wilson Fox:[2] "It is, however, seldom absent" (referring to dyspnœa) "in the final stages of chronic phthisis, and is commonly, but not constantly, felt whenever bronchitis or intercurrent pneumonia supervene."

THE PROPER FEEDING OF INFANTS.

By FREDERIC M. WARNER, M.D.,

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THE most frequent cause of the great mortality among young infants is, undoubtedly, imperfect nutrition due to faulty feeding.

Many women give birth to children, and are not able to nourish them; their supply of milk may be either insufficient in quantity or thin and poor in quality.

Often the true state of affairs is overlooked, and the hungry, crying child, supposed to be suffering from colic, is dosed therefor, and the starvation process goes on.

The following case is quite an object-lesson in this connection:

CASE I.—A. B——, healthy child, born at full term, well nourished, and with no inherited disease. After the first couple of days was noticed to cry a great deal and gradual wasting took place. Castor-oil was administered once or twice, followed by green, slimy movements; the trained nurse in attendance reported that the child nursed regularly, and that there was plenty of milk. The ninth day a consultant, who was called in, examined the mother's breasts, and found that although they were large and well developed they yielded only a couple of drops of milk.

A wet-nurse was obtained at once, and the milk pumped out and fed to the child, by means of a medicine-dropper, every few minutes. Stimulants were also administered, but the patient succumbed the following day of exhaustion.

In this case there had been, probably from the first, no milk at all in the mother's breasts. The infant, which at birth was well nourished, was terribly wasted when it died.

The next case demonstrates another class, when the milk, abundant at first, for some cause or other becomes diminished in quantity.

CASE II.—C. D——, well-nourished child, did well until one of the mother's breasts became inflamed, secondary to a sore and fissured nipple. The baby was allowed to nurse on both breasts, but such was the pain caused by the act that the mother permitted the intervals to be as long as possible.

I saw the child for the first time when it was about a month old. It was very much emaciated. It was being nursed very irregularly, every two or four or six hours. It was crying constantly, and was being dosed for colic.

An examination of the mother's breasts showed an almost entire absence of secretion. The patient was at once given artificially digested milk, with stimulants, at regular intervals of an hour each; and in addition was applied to the mother's breasts with the same regularity, with the hope that the mammary secretion might be once more established. A few days, however, showed that we had nothing to expect from the mother.

There were not thirty drops of milk secreted from the time that I saw the case first; but the child did well on the artificial nourishment and made a good recovery.

CASE III.—E. F——, child, was seen on fifth day after birth; it had been crying pretty constantly for the past couple of days; it suddenly stopped and went into a profound sleep; the nurse was supposed to have administered paregoric to it, but she denied this.

On examination the infant was found to be much wasted, and the mother's breasts revealed but a few drops of milk, although the nurse insisted that up to this time there had been a normal amount secreted.

It was impossible to rouse the child by stimulation. A wet-nurse was at once procured, and breast-milk fed the child, by means of a medicine-dropper, every hour at first, and then every hour and a half, day and night, for about a week, the infant gradually coming out of the condition of stupor, and it made a good recovery.

This last case is particularly interesting from the fact that such uncertainty exists regarding the cause of the stupor, whether it was due to an opiate administered by the nurse, or whether it was the collapse of starvation, or a combination of both. The mother, a primipara, thought that the child nursed well, and the monthly nurse was positive that it got plenty of nourishment. At the time that the breasts were examined the absence of milk might be explained as a result of the shock at the child's condition.

CASE IV.—G. H—— was seen as it was dying at about the end of the fourth week. The mother of the child had not been able to nurse it, and it had been fed on one of the infant foods, so called substitutes for mother's milk, with which the market is flooded.

The baby, which was said to have been a fine, fat, healthy one at birth, commenced at about the third week, to give evidences of malassimilation of the food; diarrhœa, vomiting, and rapid wasting took place, until the appearance of the child was that of a living skeleton.

Cathartics were given, as they generally are in these cases, and many other measures tried; everything was done except that which in my opinion would alone have been of avail—the administration of human breast-milk, and the child died literally of starvation.

Comment on these cases is hardly necessary. It may be urged that they are exceptional, that but very few infants run any such danger and risk. I believe, however, that the occurrence is only too common, and that the cause of wasting and emaciation in many cases is due, not to inherited disease, to which it is often improperly ascribed, but to a cause nearer at hand and easier of solution, insufficient and faulty food.

The lesson to be learned from a consideration of these and similar cases is, the administration of proper nourishment, as to quantity, quality, and regularity.

Within five or six hours after birth the child should be applied to the breast, and thereafter every four hours until the secretion of milk is established; this serves the double purpose of exciting the lacteal flow and of drawing out the nipple; and this latter is an important consideration, for the nipple, especially in primipara, may be small and flat, and when later the breast becomes distended with milk—about the third or fourth day—will be on a level with the skin, and therefore a matter of considerable difficulty for the child to lay hold upon. After the milk appears the child should be put to the breast every two hours, and no oftener; it should nurse from twenty to twenty-five minutes. Very young children often remain at the breast only about five minutes and then go to sleep; they should at once be roused by gently rubbing the face and head, and kept awake during the prescribed time. A healthy child will absorb sufficient nourishment from a normally secreting gland during this period.

Too much condemnation cannot be expressed in reference to the matter of permitting the child to nurse when it will, and as much as it fancies, for the following reasons: Too frequent nursing makes the nipples tender and sore; they may become excoriated and lay the foundation

[1] Practice of Medicine, vol. i., p. 974. Philadelphia, 1886

[2] Treatise on Diseases of the Lungs and Pleura, p. 791. London, 1891.

for trouble with the gland itself. Moreover, irregularity in nursing disturbs the child's digestive function; the stomach of the babe, as in the adult, requires a period of rest. This rule is rarely adhered to, and its importance in relation to the good health of the child cannot be over-estimated.

Moreover, an infant which is nursed regularly and about the same duration of time unquestionably absorbs about the same amount of nourishment at successive stated periods; if, on the other hand, a child is allowed to nurse when and how much it will, we have no means of ascertaining the quantity, and must of necessity be uncertain whether the child is getting too little or too much food.

A recent writer has said that it becomes apparent every year that fewer mothers are able to properly nourish their offspring, a statement which I do not believe to be substantiated by facts. I believe that many women whose breasts are dry would have been able to suckle their children had the care and attention been given to the proper application of the child early to the breast, of which a careful consideration of the subject shows the great importance.

The food of the mother the first few weeks after the birth of her child, should consist largely of cow's milk, as much as three or four quarts in the twenty-four hours if possible, and in case of an idiosyncrasy existing whereby the patient cannot drink milk without a great deal of gastro-intestinal irritation, malt preparations, such as ale and porter, may be substituted, supplemented by nourishing soups and underdone beef and mutton, with cereals and vegetables; in other words, a full diet.

If a careful examination of the breasts from day to day reveals the fact that they are not secreting sufficient milk to sustain the child, the problem is presented whether it is of use to persevere in nursing the child, or whether other measures should be employed.

Emphatically I insist that the child should be put to the mother's breast every two hours, allowed to nurse all the milk therein contained, then fed a quantity of cow's milk which has been predigested, a sufficient amount, to be determined by the physician in attendance. This is easily done by gauging the flow from the breasts, and giving of the artificially digested milk enough to supply the deficiency. In this connection a valuable aid in determining whether the child is being sufficiently nourished will be found by weighing the infant daily.

In case ample trial convinces the physician that the mother has no breast-milk, one of two measures may be employed; preferably, if the patents can afford the expense, a wet-nurse should at once be secured; on the other hand, we have the uncertain means of feeding the child with artificially digested food, cow's milk, peptonized, which, to say the least, is hazardous with city-bred children.

66 West Fifty-sixth Street.

The Medical Profession in California.—There are 2,531 physicians in active practice in California to-day; of these 354 are homœopaths and 267 eclectics, leaving 1,910 regularly qualified physicians. This gives us about one doctor to every 530 inhabitants—quite enough. "The Register" shows that there are 143 illegal practitioners. To this number we could add about 1,000 quacks—men and women—who are in the "healing business." These are about equally divided into "spirit-healers," Christian science doctors, faith-curers, magnetic and clairvoyant frauds, to say nothing of tape-worm "professors," "face-ironers," and "beauty" specialists.

Sneezing for Hysteria.—The idea has been suggested that in certain well-known conditions of hysteria a judiciously administered pinch of snuff might have a beneficial effect. Familiar to everyone is the perverseness with which such hysterical attacks resist ordinary remedies, and it seems not improbable that some of them might be curtailed by a period of vigorous sneezing.

Clinical Department.

PURULENT OPHTHALMIA, FROM THE STANDPOINT OF ITS SPECIFIC MICROBIC CAUSE.

With a Plea for a more Energetic, Rational, Abortive Treatment where Possible.

By ALFRED HINDE, M.D.,

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The following are the conclusions of an article read before the Ophthalmic Section of the American Medical Association, at Milwaukee, Wis., June, 1893:

1. That all cases of purulent conjunctivitis are of microbic origin and due to Neisser's gonococcus.

2. That all cases originate from a gonorrhœal focus, by devious paths, often, but not always, traceable.

3. That those parts of the conjunctival sac having a cylindrical, or a modified cylindrical epithelium, viz., the palpebral portions and that of the fornices, are the seats of election of the micro-organism.

4. That the location of the gonococcus on the mucous membrane is, at first, super-epithelial, then inter-epithelial; and still later sub-epithelial, and all combined.

5. That its special habitat is within the pus-cell, yet it is also extra-cellular as well as intra-epithelial.

6. That the associated inflammation of the adjacent lid-tissues is due to the lymphatic absorption of the ptomaïnes of the microbe.

7. That the compact stratified epithelial layer of the scleral conjunctiva and cornea is very resistant to the attack of the gonococcus.

8. That ocular complications are due to pressure necrosis, producing an infection atrium through which the streptococcus, and maybe the staphylococcus, find ready entrance to tissues with greatly impaired physiological resistance, and often rapidly destroy them, resulting in perforation of the cornea, intra-ocular infection, and loss of the eye. This is a secondary infection.

9. That the therapeutical indication is the mechanical removal or destruction of the gonococcus, with its ptomaïne, and that if this is done early and thoroughly in the weeping stage, the period of acute inflammation will be cut short and the ocular complications avoided.

10. That it is well in the incubative stage, even without positive evidence of a gonorrhœal origin, to regard with suspicion all cases of severe monocular catarrh, and especially so in the female, irrespective of age or condition, and to treat them as if due to the gonococcus.

11. That the mechanical removal of the discharges and the loosened epithelia, and therewith the microbe and its ptomaïne, by thorough brushing of the palpebral conjunctiva and that of the fornices, and ample flushing of the conjunctival sac with simple diluents, or weak microbicide solutions, fulfils the etiological indication and is non-injurious in all severe cases of simple catarrhal conjunctivitis.

12. That of all local remedies nitrate of silver is the most potent, and, at the same time, least irritating microbicide we possess. It prevents complications, and can be used in sufficient strength to destroy the gonococci without risk of injury to intact ocular tissues, and that solutions of greater strength than two per cent. are unnecessary.

13. That in cases when first seen, where complications already exist, brushing of the palpebro-fornix conjunction should be resorted to, with thorough frequent irrigation of the conjunctival sac, preferably with sublimate solutions up to 1 to 5,000. If undue lid-pressure exists free canthotomy is advisable, but scarification of the serofibrino-plastic chemosis of the scleral conjunctiva does not relieve exudative pressure on the ocular tissues, and it opens the doorway for secondary infection with pus microbes and is a dangerous proceeding.

14. Where the cornea alone is inflamed, the added, guarded daily use of a bichloride solution, 1 to 500, to the infected area, is the best treatment, together with myotics, not on account of the latter's mycotic action, but because, after a preliminary increase, they reduce intra-ocular tension by contracting the blood-vessels and diminishing serous exudation, and thereby they improve the nutrition of the ulcerated, softened, corneal tissues. Paracentesis of the anterior chamber through the bottom of the ulcer is called for only in those cases where perforation impends, or where positive, progressive intra-ocular infection exists.

15. The use of a mydriatic is best limited to those complicated cases where the uveal tissues are threatened or inflamed, because after a preliminary reduction it increases intra-ocular tension by impeding the outflow of fluids from the eyeball, thus resulting in increased posterior pressure on the softened cornea, impairing nutrition and aiding bulging.

16. A supportive compress-bandage is antiphlogistic and of great use in preventing staphylomatous results in complicated corneæ, and its use ought to be continued until the healed cornea is again unyielding.

17. Ice-cold applications check microbic multiplication and ought to be used assiduously to the end of the acute stage, or until ocular complications ensue. After the latter occur applications as hot as can be borne are more comfortable and more conducive to the improvement of the nutrition of the impaired ocular tissues.

18. As a prophylactic in monocular cases the other eye ought to be sealed against infection; and the risks to others from these cases thoroughly advertised.

19. The treatment of the initial focus of infection, when ascertainable in the infected subject, must be rigidly carried out on the same lines, and simultaneously with the conjunctival inflammation.

16 Laflin Street.

THERAPEUTICS OF RESORCIN.

By JAMES ALLEN PATTERSON, M.D.,

SALEM, N. J.

Resorcin is a well-known crystalline substance, colorless, odorless, and of a sweetish acrid taste, freely soluble in water, solutions changing from their original colorless appearance to that of a reddish brown upon standing twenty-four to forty-eight hours; the color gradually deepening in tint as time elapses, caused presumably by its oxidation, the discoloration apparently in nowise injuring the therapeutic activity of the drug in solutions a week or two old.

Resorcin, "as now obtained, being a derivative of phenol" ("Wood's Therapeutics"), partakes of the physiological and toxic properties of that group. Internally an overdose induces flushings of the face, giddiness, tinnitus aurium, disturbances of the circulation and of respiration, followed by collapse. The urine becomes charged with the greenish-black substance similar to that found from the toxic effects of carbolic acid.

Locally it is a caustic in strong solutions, medicinal strengths (two to ten per cent.) possessing the power of arresting processes of fermentation. Upon mucous membranes and abraded surfaces it possesses local anæsthetic effects of a very high degree of efficacy; in fact, the antifermentative and local anæsthetic effects of the drug are the only ones that have proved sufficiently valuable, in my experience, to give the drug a place in the physician's armamentarium, its use as an antipyretic being unsafe in the large doses required for such effects, even then being inferior to the various "antis" in vogue. As a remedy used locally by spray to the pharynx and larynx it has become my sheet-anchor in pertussis and allied spasmodic affections of the larynx and bronchi. I have recently encountered a violent epidemic of whooping-cough, having treated cases in which the constant hacking had produced such extreme irritability of the stomach that food could not be retained, thus inducing loss of flesh and strength, combined with changes in the lung-substance (emphysema and lobular collapses and infiltrations) and damage to the cardiac valves, producing dyspnœa, insomnia, and great general bodily discomfort, together with intense head-pains from the constantly recurring shocks of the cough; frequently the patients were found not only confined to the house but bedridden. Many, being adults, were most heartly disgusted mortals.

After beginning the use of resorcin in the manner to be related, reduction in the frequency and severity of the cough paroxysms was quickly noticed. This causative element being eliminated, the remaining symptoms fell in the line of march toward recovery; of course, some instances of permanent damage to the lungs and heart have remained. Many came under my care after having suffered three to six weeks. All cases seen in the early stages where this treatment was instituted were not aborted, as some authorities claim,[1] but the attacks were lessened in severity and shortened in duration very materially, no complications being encountered. I believe its action in pertussis to be largely that of a local anæsthetic, as the lessening of the excessive sensibility of the pharyngeal and laryngeal mucous membrane prevents cough; though I would not discountenance the fact that the bactericidal effect of resorcin may kill the microbus morbi.

My manner of adminstration has been by spray. The few instances in which I tried it by stomach administration proved failures. I use a five to ten per cent. aqueous solution, by a long, straight-tubed atomizer into the pharynx every one or two hours. Being thrown with sufficient force the spray rebounds from the posterior wall of the pharynx upon the epiglottis and the parts beneath it. In obstinate cases the same solution can be thrown into the larynx and, with proper precautions, into the trachea. This spray is equally applicable to the hard, dry cough of old bronchitics, and if used with sufficient persistence will lessen the emphysematous tendency toward which these cases constantly progress.

As a calmative in tubercular laryngitis it has proved with me more satisfactory than cocaine. A case I have in mind in which the disease ultimately proved fatal: the patient having become adept in the use of the atomizer, was able to obtain great relief from a spray directed into the larynx through a tube bent downward for that purpose. Its use before eating would greatly facilitate her ability to swallow, and used at other times would alleviate the pains of the disease. Upon two occasions, without her knowledge, I changed the resorcin solution to that of cocaine. She immediately detected the difference and begged for the original formula. In hay fever, as a nasal application, I have not obtained the relief expected from its efficient action in the pharynx. My technique may be at fault.

In chronic gastritis, particularly of infants and of the aged, it has been a boon, being particularly applicable to those artificially fed infants of rickety tendencies, who digest badly, suffer from the discomforts of flatus, both gastric and intestinal, and constipation, in consequence of which they are peevish and sleepless in the extreme. I always administer it to them in watery solutions, upon an empty stomach, in doses of one-quarter to one grain, for children whose ages range between three and twelve months, one-half to one hour before feeding; it will thus be repeated every two to three hours. It has the advantage of being tasteless, and can thus be readily exhibited by spoon, or, as I frequently suggest, by allowing the child to suck the prescribed dose from a wineglass through its nursing-nipple with tube attached. In these cases it may be advantageously combined with the phosphate of soda, proper regulation of diet, of course, being indicated.

My experience in adults coincides in general with those of Thompson.[2] Suffice it to say that it has acted the most favorably in the chronic gastritis of old alcoholics. It has appeared to act as well in three- as in five-grain doses.

[1] Moncorvo: Ann. de la Polic., June, 1892.
[2] Merck's Bulletin, vol. v., No. 2.

Locally, in skin affections it is an established dermatological formula, in chronic eczema and psoriasis, where a stimulating application is indicated in exudative thickenings.

PROCIDENTIA UTERI IN A PREGNANT WOMAN.

By AARON JEFFERY, M.D.,

BRADFORD, VA.

I REPORT this case on account of its rarity, and also to show what a pregnant woman *may* undergo without having a miscarriage.

I was called to see Mrs. V——, a German by birth, aged thirty-six years, mother of two children, on June 6, 1892. I found her with complete procidentia of the uterus, the womb having been out for a week, so she said. The labia and uterus were very much swollen and inflamed, having a muco-purulent discharge. There was also a bloody discharge mixed with mucus from the os uteri.

The uterus was very tender and painful, and as she suspected that she was pregnant I decided to have consultation before taking any steps in the matter. Dr. R. B. James saw the case in consultation with me, and we both thought it improbable for her to be pregnant. We accordingly replaced the uterus at once, and kept it in position with absorbent-cotton balls, saturated in equal parts of glycerine and extract of white pinus canadensis. After keeping her in bed for a week, and daily replacing the cotton balls, she was able to walk about without protrusion of the uterus. Before I saw her she had been doing general house-work, carrying water and coal, cooking, etc. I was surprised when her husband saw me in October and engaged me to attend her during her confinement, which he thought would be in a month or two.

Shortly afterward I was taken with typhoid fever, and Dr. W. A. Willson delivered her of a healthy, full-term boy, on January 14, 1893. At this time she is in better health than she has been for a year or more, and thinks she is again pregnant.

A CASE OF POISONING FROM AN OVERDOSE OF CODEINE.

By WILLIAM PHILIP SPRATLING, M.D.,

NEW YORK.

SHORTLY after ten o'clock on the evening of June 8th I was requested to see a young married woman who had taken an overdose of codeine. Immediately after dinner, about 7 o'clock in the evening, she had taken sixteen half-grain pills, making eight grains altogether. She had suffered for some months from a painful disease, and had been ordered by her physician to take codeine in quarter-grain doses for the relief of pain, and to overcome a persistent insomnia. Not deeming the quarter-grain pills of sufficient strength, the patient then procured from the druggist a vial labelled as containing one hundred half-grain codeine pills. Three hours before my visit she had swallowed sixteen of these, as she avowed, for the purpose of securing a good night's sleep. An hour later she experienced considerable nausea, and vomited a small quantity of semi-liquid matter. I found her awake, able to converse perfectly well, but extremely restless and irritable. She could not lie in one position, but constantly changed it by tossing, almost violently, from side to side of the bed. At frequent intervals she would manifest convulsive movements involving the entire voluntary muscular system. These movements were most marked in the upper extremities and the head. She suffered greatly from intense irritation of the skin over the entire body. This irritation was most annoying along the flexor surfaces of the forearms and on the back. She had an attendant rub her back so vigorously with a coarse towel that the skin in many places was broken. The surface of the body was warm and dry. The pupils were fixed in pin-point contraction. Respirations were twelve per minute. She complained of great thirst, and an uncomfortable feeling of fulness in the head. I endeavored to ascertain by repeated questioning whether she experienced any of the pleasant mental effects that follow the exhibition of morphine, but failed to find that such was the case with her at any time during the action of the drug. She frequently remarked that her "thoughts were going round and round." After the painful irritation of the skin had been relieved by sponging the body with solution of bicarbonate of soda, she sank into a light doze, from which she would awake in a few minutes with a start. The skin was hyperæsthetic to a marked degree. She was subjected to the usual treatment for opium-poisoning, and in a few hours was much improved.

By noon on the following day she had fully recovered from the effects of the drug in every way, save that considerable muscular weakness remained. We apparently have no fairly accurate knowledge as to what amount of this drug may be regarded as a fatal dose. In the latest edition of "Wood's Therapeutics" it is stated that "Robiquet in a series of experiments found that doses of 0.01 to 0.03 gm. (0.15 to 0.46 gr.) produced a feeling of contentment, calmed nervousness, and induced refreshing sleep; while 0.1 to 0.2 gm. (1.53 to 3.07 gr.) caused deep sleep followed by nausea and vomiting." Quoting further from the same author, he adds, "Dr. A. S. Myrtle[1] records a case of serious poisoning by four grains of codeine." And Dr. D. Walsh[2] reports serious poisoning by eight grains of codeine.

70 WEST EIGHTY-EIGHTH STREET.

IMPERFORATE HYMEN — RETAINED MENSTRUAL FLUID.

By CHAS. E. NAMMACK, M.D.,

VISITING PHYSICIAN GOUVERNEUR HOSPITAL, NEW YORK.

SOPHIE P——, aged eighteen, native of Poland, was brought by ambulance, at 2 P.M., May 24, 1893. No one at the hospital understanding her native tongue, her previous history could not be obtained. That she was suffering intense pain and had an abdominal median tumor extending upward to the umbilicus, were very evident facts, and the house-surgeon, on attempting vaginal examination, discovered that the hymen was imperforate, the labia separated to the extent of two inches, and the perineum bulging as if by a fœtal head.

It appeared to me, from the girl's general robust development, that she should have menstruated at least two years previously, and I reasoned that the changes in the uterus and Fallopian tubes during that period would render immediate evacuation of all the retained fluid dangerous. The vaginal distention was so great that she was unable to urinate, nor could a catheter be passed. Aspiration of the vagina was accordingly ordered, and a sufficient quantity of the retained fluid withdrawn to make her comfortable and allow the urine to be withdrawn by catheter. The aspiration puncture was not sealed, but through it the accumulated menstrual discharge was allowed to escape guttatim.

The next day the visiting surgeons were invited to see the case, and Dr. J. E. Kelly of the visiting staff, at my request, incised the thickened hymen under strict antiseptic precautions, evacuated the retained fluid, and irrigated the cavities with a one-half per cent. creolin solution.

The patient made a speedy and satisfactory recovery. The case seems to show that the danger formerly attributed to rapid evacuation of these accumulations can be obviated by asepsis.

29 EAST TWENTY-FOURTH STREET.

[1] British Medical Journal, 1874, i., 478.
[2] Ibid., 1888, ii.

MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

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THE PATHOLOGY OF NERVOUS DISEASE.

IN a paper published in a recent issue of the *Boston Medical and Surgical Journal*, Dr. Charles L. Dana takes up the question of modern pathology in its bearing on the pathology of nervous disease, adding some therapeutical deductions in regard to the use of organic extracts. The author, who styles himself an amateur in general pathology, suggests that the present is rather too exclusively the day of the clinician and of the anatomist, and that it would be an improvement to try to learn, if possible, the actual and primary causes of nervous disease. No reason can be given why muscular atrophies should be progressive, or shaking palsies should forever shake. Perhaps they always will; yet there is no reason to suppose it, and every patient should furnish a field of earnest effort until the mystery of the disease is solved.

Leaving out tumors, mechanical injuries, and rupture or stoppage of blood-vessels, organic nervous diseases may all be classed as inflammatory or degenerative. Inflammation is best described teleologically: it is the reaction of the system to a poison or irritant. The irritant is a toxine, and in most cases the product of a microbe. The part of the system which reacts to the irritant is derived from the mesoblast; in other words, it is connective tissue and blood-vessels. Animals without a mesoblast do not have inflammation. When the irritant consists only of dead cells, as occurs after aseptic injury, there is a reparative process; but in the other forms the irritation is of a microbic, or perhaps sometimes of a diathetic, origin. It acts especially upon the blood-vessels, connective tissue, and lymphatics, and it calls into play the defensive cells (phagocytes) and defensive proteids (socin and phylloxin) of the body. There is always present a something which may be called positive chemotaxis, and which sets the organism into active warfare against the invader. It is not of so much importance what the exact cellular changes are; the point is that there can be no inflammation without a cause, and that this cause is a poison of microbic origin usually, and of chemotaxic power. Different microbes call out the defensive powers of mesoblastic cells and defensive proteids in different degrees. The parenchymatous cell, or in this case the nerve-cell, has no defensive powers of its own, and has to rely on the mesoblast—perhaps in some instances upon the epiblastic neuroglia—for its protection. Besides inflammation, there are certain changes in the nervous system which are called primary degenerations, such as locomotor ataxia and the progressive spinal myopathies, in which the nerve-cell dies first, as though starved or under the influence of a narcotic poison. The cells die, and as they cannot die without a cause, one must conclude that here, too, there is a toxæmia.

The relation of syphilis to tabes suggests that this cause is sometimes of microbic origin. The toxine in degeneration, however, does not cause vascular or connective-tissue irritation. There is repulsion, a negative chemotaxis, and death.

The writer suggests that the matter may be put succinctly in this way: There is in inflammation a positive chemotaxis, and in degeneration a negative chemotaxis, both conditions being due to some toxic principle of extrinsic or intrinsic origin. And he then proceeds to apply these views—which are in the main established doctrines in general pathology—to special classes of nervous diseases. Alcoholic meningitis, so called, he finds to present post mortem no signs of inflammation, but only signs of congestion, anæmia, and œdema, not sufficient to account for all the symptoms. It is, in reality, a condition of brain-poisoning. Post-mortem evidences of tubercular meningitis in children frequently consist only of intensely red meninges and a few tubercles, though during life marked tubercular symptoms may have existed. Death here is not due to an inflammation, but to an overwhelming poison, or toxæmia. Dr. Dana denies that acute primary myelitis ever occurs except from septic infection. This view is supported by Oppenheim, of Berlin, who has hardly found a case; Leyden takes the opposite position. How, we are asked, can there be an acute primary myelitis, except from sepsis or tubercular or syphilitic foci? Acute exudative and destructive inflammation elsewhere does not pick out a section of the organ it invades. It is easier to suppose that in most cases of so-called acute myelitis, there is first a ruptured vessel, or an obliteration through spasm or thrombosis, and that the injured part simply undergoes repair; or, as sometimes happens, becomes secondarily infected or inflamed. Chronic transverse myelitis is generally admitted to be rarely, if ever, a primary affection. Most cases are the sequelæ of an acute process, of syphilitic disease, or of traumatism. By rigid and more appropriate use of the word inflammation, present phlogistic conceptions of nervous disease become modified and replaced by the words toxæmia, necrosis, and degeneration. There are certain chronic neuroses, of which paralysis agitans is one, in which post-mortems show that there has been for a long time a continual irritation of the connective tissue and blood-vessels, with secondary cellular disturbances. Such conditions answer to the definition of a chronic inflammation. Assuming paralysis agitans to be of the nature of a chronic inflammatory irritation, one must infer that there is a cause for it, and that this cause is toxic, and further that paralysis agitans is a chronic toxic disorder.

In ordinary Sydenham chorea, the consensus of opinion attributes its nature to disturbances of the same character; the evidence shows that the original trouble is humoral or microbic in origin, and that the anatomical changes partake of a subinflammatory character. The theory that epilepsy is a toxic disease, propounded by the late Dr. Austin Flint, is, no doubt, in part the true one. A toxine resulting from some defective metabolism or

glandular activity, may be the active factor in producing neuroglia-sclerosis, and convulsions. The degenerative state existing in most cases of idiopathic epilepsy, may find its expression quite as much in a defective tissue change as in a purely defective condition of the nerve-cells. Idiopathic epilepsy may be best explained as a disease of the whole body, and not simply a disease of the cortex of the brain. Many nervous diseases must be regarded as of glandular or metabolic, as well as of nervous, origin. Nerve-centres defective in power of resistance to the attack of extrinsic or intrinsic agencies acting injuriously upon the system, yield readily to the power of an intoxicant. Weakening effects, as powerful emotion, lessen the resistant powers of the entire organism. They render especially susceptible those particular parts that received inadequate endowment in the beginning. In this way may be explained how fright will set up a paralysis agitans, or a neurasthenia, or an exophthalmic goître. The point to bear in mind is the importance of regarding many of the nervous diseases, not as scleroses, or degenerations, or inflammations, or congestions, but as the result of some ulterior factor, and that it is which one desires most actively to attack. How to do it is as yet uncertain; the author of the paper suggests the application of new methods of dealing with infectious diseases—the use of the ferments, immunizing serum, extracts of normal tissues and organs, and antitoxines, from whatever source they can be obtained.

FOURTH OF JULY SURGERY.

The accidents in this city attendant upon the celebration of our late glorious Fourth were numerous, and make an interesting contribution to surgery and contemporaneous history; the total number reported was forty-one, which makes exactly one case of surgery to every fifty thousand of the population, assuming that all cases were reported.

The favorite form of surgical celebration appears to have been a burn: there were seventeen cases of this kind of injury. Following very closely upon burns came gunshot wounds, of which there were seventeen. All parts of the body were perforated, but the lower limbs were in the majority, receiving eight shots, while the arms received four, the chest two, and the head three. No citizen of New York is reported to have been shot in the back. One person, we regret to say, was killed accidentally by a rifleshot, one was thrown from a wagon, one had his leg fractured, and two received lacerated wounds.

We extend to the forty unfortunates our sincere commiseration. Fourth of July will come again, and another forty will be hurt, perhaps fifty. For there are two millions of people who escaped, and they must still have their celebration. Mr. Pope touched at the explanation when he said: "I never knew a man in my life who could not bear another's misfortune perfectly like a Christian." The unscathed millions are sorry, but they bear up, and buy more fire-crackers.

St. John's Guild.—Judge Ingraham, of the Supreme Court, has rendered a decision awarding St. John's Guild $10,000 of the $100,000 which Mrs. Elizabeth Fogg left on her death, in 1890, to be distributed among ten different charitable institutions.

PROPOSED NATIONAL BUREAU OF HEALTH.

In another column the Committee of the New York Academy of Medicine submit a first draft of a Bill establishing a National Bureau of Health. As success in securing the passage of any bill must depend upon the concentrated efforts of all interested in such legislation upon a single measure, the Committee has wisely submitted to public criticism a plan of organizing a central health bureau, with a view of obtaining such information as will enable it to mature a bill which will, as far as possible, be generally acceptable and approved. The plan of creating sanitary divisions of the United States, and having a central commission composed of representatives from each division, is a new and important feature, and is quite in accordance with our form of government. The manner in which the co-operation of State Boards of Health is secured is worthy of consideration, as also the creation of an executive committee composed of local members with the President of the Commission. By this latter arrangement there would be an intelligent and efficient, but inexpensive, body at the capital, so situated that it would be practically always in session. The plan proposed seems to us to embody many excellent features, and we trust that it will receive wide publication by the medical press, and such consideration by the profession as will enable the Committee to formulate a bill which will be accepted heartily by all who are interested in securing a competent branch of sanitary administration in the General Government.

ALCOHOL IN DISEASE.

Much is being made of a report by Dr. B. W. Richardson on the non-use of alcohol in the treatment of disease. Dr. Richardson treated about two hundred cases without employing any C_2H_5HO, these cases including pneumonia with emphysema, 5; acute pneumonia, 7; lobar pneumonia, 4; broncho-pneumonia, 3; double pneumonia, 1; alcoholic pneumonia, 1; other diseases of the respiratory organs, 34; of the organs of circulation, 23; of the digestive organs, 34; of the nervous system, 14; of the urinary system, 4; of the uterine system, 13; rheumatic diseases, 27; enteric fever, 5; poisoning, 5; miscellaneous diseases, 24. The general results recorded of these two hundred cases are thus given: recovered, 116, or 58 per cent.; relieved, 44, or 22 per cent.; unrelieved, 11, or 55 per cent.; died, 29, or 14.5 per cent.

Among the pneumonias, of which the total number was 13, the mortality was 5, or over one-third. The general mortality of the hospital was 6.2 per cent.; that of the medical side, 11.6 per cent. while the hydrate of ethyl was not used at all, Dr. Richardson seems quite partial to O_3, NH_3, H_2O_2, $C_5H_{11}NO_2$, and other recondite chemicals. It seems a little odd that a hospital should be founded for the purpose of excluding the use of hydrate of ethyl while permitting all other forms of stimulating and sedative compounds. Nor does it seem that the results of treatment in any way justify the therapeutical position taken.

The Will of Edwin Booth leaves the sum of $5,000 to the Home of Incurables at West Farms.

News of the Week.

Arsenic and Cholera.—A monthly publication called *The Arena*, which aspires to deal with the larger problems of existence, publishes an article on "Arsenic *vs.* Cholera." "By so taking arsenic," says the writer, "we fix the albumin to such an extent that cholera (which does the same) cannot take hold, and thus cause, along with the loss of the salts, the cramps of the disease. By taking arsenic by mouth, hypodermically, or from ivory points, and repeating as necessary to produce this effect we destroy the animal and vegetable germs extant at the time of the exhibition of the remedy, and preserve the tissues from further and rapid carbonization in consequence thereof; and as it is a reconstructive as well as a tonic, we obtain immunity from the comma bacillus as long as forty days thereafter, making each person so arsenicized a non-infected and non-infectant medium daily growing stronger."

A critic in the *British Medical Journal* adds: "Voltaire somewhere says that magical incantations will kill a flock of sheep if a sufficiently large dose of arsenic be given at the same time; on the other hand, we have little doubt that arsenic will often protect from cholera—if assisted by a sufficiently lively faith." It is astonishing that editors of lay journals can be so deficient in prudence and intelligence as to allow such doctrines as we have quoted to be published.

The Cholera.—Under date of July 1st *The Lancet* gives the following account of the prevalence of cholera. There is not much to be added of a very satisfactory or reassuring character to our report of last week. Cholera seems to be widely distributed at the present time, although, if we except Mecca, it has not manifested itself with epidemic strength or severity at any particular place. In Europe it has been generally mild in form but persistent in character. At Mecca, however, the outbreak has been very severe and is still increasing with alarming rapidity. The deaths on June 25th numbered 455, and later reached even 1,000 a day. During the first ten days of last month 62,000 pilgrims passed through Jeddah alone, and further arrivals are still announced. As regards France, cases of cholera have occurred in the northwest, west, and south of that country, and the disease seems to have been widely distributed. The health of Paris keeps good, but not so that of other parts of France. For some time past cholera prevailed to a limited extent in Brittany, especially at Lorient and Quimper, and subsequently the disease appeared in Southern France. Cases of cholera, with the usual proportion of deaths, have occurred at Nimes, Montpellier, Cette, Bessèges, Frontignan, Alais, Lyons, Toulon, Nantes, Hyères, and Marseilles. The disease is extending southeastward to the frontier of Spain. The valley of Andorra in general has suffered, and at Pamiers, in the Arriège department, the visitation is said to have been severe. Nantes in the west is affected, with a prospect of the disease extending up the valley of the Loire, and there are rumors of suspicious cases of choleraic disease at Bordeaux. According to a telegram from Paris of June 28th, it is reported from Carcassone that an outbreak of cholera, which is attributed to the bad water, has occurred in the village of Luc-sur-Aude, where out of 200 inhabitants, 12 deaths have been registered and 15 cases are under treatment. The people have fled from the commune. Fresh cases are reported from Hyères and Seyne.

Telegrams from St. Petersburg, dated July 12th, report that the city has been officially declared to be in a healthy condition. Fifty medical men who had been detained at the military academy for fear that there would be an outbreak of cholera have been dismissed to their homes. The last weekly official report on the epidemic in Russia gives the following figures for the provinces where the disease prevails: Podolia, 310 new cases, 100 deaths; Bessarabia, 35 new cases, 15 deaths; Orel, 32 new cases, 12 deaths; Kherson, 18 new cases, 9 deaths; Toula, 8 new cases, 3 deaths. From Budapest the news comes that true Asiatic cholera prevails in Hungary to a slight extent, the prompt measures taken by the government having prevented thus far any alarming spread of the disease. There has been an average of two cases daily. The number of deaths, if there have been any, has not been reported. Eighty-five cases of cholera are reported in the hospital at Alexandria, Egypt. Forty deaths from the disease have occurred. There were five new cases of cholera and four deaths from the disease in Toulon during the twenty-four hours, ending July 12th.

Dr. James J. Levick, of Philadelphia, died June 25th, of heart disease, aged sixty-eight. He was graduated from the University of Pennsylvania in 1847, and became a resident physician in the Pennsylvania Hospital, and subsequently one of the attending physicians. At a later date Dr. Levick was elected to the staff of Wills Eye Hospital. He was also connected with the Magdalene Asylum. In 1884 he received the degree of Master of Arts from Haverford College.

To Inspect Coming Immigrants.—Surgeon-General Wyman, of the Marine Hospital Service, has ordered Surgeon Fairfax Irwin from Marseilles to London, to report to the Consul General there, and to have charge of all the inspections made at London, including the emigrant station at Blackwall, on the Thames, from which emigrants leave for Southampton. There are two inspection physicians already employed by the Consul General at London, and they will hereafter be under the direction of Surgeon Irwin, and all bills of health will be signed by him.

Surgeon W. J. Stimson has been ordered to Glasgow to have charge of all the inspections at that port.

The Long-pending Suit of Dr. Charles E. Simmons against the executors of the estate of Samuel J. Tilden, has been settled out of court. Dr. Simmons sued for $143,350 for professional attendance upon Mr. Tilden, from September, 1878, to August, 1886.

A compromise was effected a few days ago, and Dr. Simmons receives $40,000 for his eight years of professional attendance upon Mr. Tilden.

An Appeal is Issued to American Jews to assist in establishing a hospital in Jerusalem for American Jews. Funds are to be sent to the Society of Ezrath Cholim, Jerusalem, Syria.

Dr. J. B. Hamilton has been appointed editor of the *Journal of the American Medical Association.*

University Extension, as we understand the scheme, is an educational system by which the services of expert teachers are utilized for persons who are not able to connect themselves with universities. The giving of University Extension lectures in a university is a good deal like preaching to the heathen from a home pulpit. We notice, however, that the University of Pennsylvania has extended its work so as to include Extension. Drs. J. S. Billings and A. C. Abbott will give a course of lectures on hygiene.

Medical Legislation in Connecticut.—Connecticut, too, has fallen into the line of medical progress. Its State Legislature has recently passed a bill providing for the appointment by the State Board of Health of three Examining Committees, each to consist of five physicians selected by the Connecticut Medical Society, The Connecticut Homeopathic Medical Society, and the Connecticut Eclectic Medical Association, respectively. Each committee is to frame its own questions and conduct its examinations in writing, and both questions and answers are to be placed on file with the State Board of Health. Applicants for the privilege to practice need but be graduates of medical colleges that are recognized as reputable by any one of the chartered medical societies of the State. The license confers the privilege to treat, operate, prescribe, or practise surgery or midwifery "only in the kind or branch of practice as stated in the certificate of registration."

Obesity and Life Insurance.—Dr. Kirsch has studied the question of obesity in connection with life insurance. Ordinary obesity is not a reason for refusing a policy. If obesity is hereditary, if in the family history there has been diabetes mellitus or cerebral hemorrhage, the medical expert should be cautious. If obesity is extreme the heart and urine should be carefully examined. Irregular pulse and bradycardia are bad signs. When intemperance coincides with obesity the probability of long life is small.

Treatment of Cholera Infantum.—Cross, of New York (*Therap. Monatsh.*, May, 1893), who states that an exceptionally large number of cases of infantile cholera come under his notice, claims to have successfully combatted this disease: first, by hygienic and dietetic measures; secondly, only by drugs. Children showing marked pyrexia attended by convulsions, but as yet no other symptoms, are subjected to a rectal irrigation of cold water, and friction with alcohol in iced water. If necessary, small doses of antipyrin are frequently administered, and should the patient then have overcome the acute onset, a strict diet is enforced, to commence twenty-four hours after the attack, all milk being excluded, regardless of the child's age. On the other hand, thin gruel, boiled sugar water, or tea are given frequently in small quantities, and salt-water irrigations are administered once in twelve hours, while six minute calomel powders are given at two-hourly intervals. By these means the attack is cut short, and in twenty-four hours milk from the breast or otherwise can be given with impunity. Should, on the other hand, the malady be developed, the abstinence from milk should be longer, the injections should be made more frequently, and a sufficiency of fresh air in or out of doors must be enjoined. In addition, calomel and salol, or the latter only in the later stages, are frequently administered, and during recovery hydrochloric acid and pepsine are substituted. Obstinate cases which have lapsed into a chronic condition are relieved by weak tannic-acid injections, and continuous vomiting generally yields to flushing of the stomach once daily with weak hydrochloric acid, one operation generally sufficing. Should the child be first seen in a collapsed condition, the author recommends immediate warm irrigation of the stomach and rectum with hot mustard baths, and small quantities of stimulants, as even the most serious cases often improve under energetic action.

A Criticism of Koch's Bacteriological Diagnosis of Cholera.—The meeting of the Berliner Medizinische Gesellschaft on June 21st was more than usually interesting by reason of a paper read by Professor Oscar Liebreich, entitled "Critical Remarks on the Methods of Examining Cholera Excreta." The gist of the paper was that Koch's methods cannot lay claim to the reliability in cholera diagnosis which is claimed for them. One by one the methods of examination as taught and practised by Koch and his followers, namely, the microscopic method, the culture method, the animal experiment method, and the cholera red reaction, were subjected to severe criticism, and clear proof of the insufficiency of all these methods was advanced. Liebreich, though he yields to none in his conviction of the importance of bacteriological research, nevertheless feels it imperative to make a stand against uncalled-for enthusiasm and hasty conclusions. He dwelt on the mistaken modern tendency to seek the source of cholera exclusively in external causes, ignoring Virchow's researches on the cell as the element which, by losing its power of resistance, predisposes to disease.

Mortality in New York.—The number of deaths in the city during the quarter was 11,844, and the death rate 25.37, lower than for three of the preceding four years. There were 3,958 marriages and 12,265 births. There were 342 more male children born than female children, but this preponderance is much more than offset by the greater number of deaths among male children. There were more than a thousand more deaths of males than of females. Less than one-third of the number of children born were born of native parents. Of the men to marry 486 were widowers, and of the women 411 were widows. The deaths of unmarried males exceeded the deaths of unmarried females by over a thousand. Over five hundred more married men died than married women, and over four hundred more widows than widowers.

Typhus in New York City.—From January 1st, to April 1st, the last quarter, there were 328 cases of typhus fever in New York City. Of the victims 316 were men and only 12 women. One hundred and eighty-one were between the ages of twenty-five and forty-five. One hundred and nineteen died. Owing to the large number of cases reported, and with the view of stamping out the spread of the disease, the Board of Health on January 5, 1893, appointed thirty assistant medical sanitary inspectors to visit all of the lodging-houses of the city once every twenty-four hours, between the hours of 10 P.M. and 2 A.M., to note the temperature of the rooms occupied as sleeping apartments, and, if over 68° F., to

order better ventilation. The wisdom of this determination is proved by the fact that sixty-nine cases have been found by these doctors and the sufferers removed to the hospital in the early stage of the disease. This surveillance over the lodging-houses and their occupants still continues, and will not be abated until the close of summer.

An Offer to Mind-readers.—Professor G. Ponchet has offered 1,000 francs to any one who can read a single word known only to himself and enclosed in a sealed envelope. The medium can have an hour to try, and if he fails must pay 25 francs, which sum will be bestowed on the poor.

Dr. S. Pozzi, of Paris, has been commissioned by the French Ministry to proceed to the United States and to study the organization and installation of surgical laboratories, instruments used in the practice of surgery, as well as general questions of the teaching of medicine and surgery.

Professor Adam Politzer, of Vienna, has been appointed by the Austrian Cultus-Minister, a scientific delegate to the Medical and Hygienic Exhibition, to be held at Chicago in connection with the World's Fair.

Dr. A. M. Makejew, late Professor of Midwifery in the University of Moscow, has bequeathed 200,000 roubles ($100,000) for the erection of a church in connection with the various clinics of that University.

Impending Resignation of Professor Henoch.—Professor Henoch, Director of the Clinic of Children's Diseases in the Charité Hospital, Berlin, has intimated his intention of resigning his chair at the end of the current semester. Professor Henoch, whose name is known throughout the medical world as the author of a standard treatise on the diseases of children, is seventy-three years of age, and has held his present appointment for forty-three years. The names of Professor Kohts, of Strassburg; Soltmann, of Breslau; and Heubner, of Leipzig, are mentioned in connection with the chair which will be left vacant by Professor Henoch's retirement.

The Gunning Prize.—The Victoria Jubilee Cullen Prize, of the value of $500, given every third year by Dr. Gunning for the most important contribution to practical medicine, has just been awarded to Dr. William Russell, Assistant Physician to the Royal Infirmary, Edinburgh, for his work on the etiology of cancer and for the stimulus his work has given to investigations in that field.

Mr. Ernest Hart on the Constitution of the American Medical Association.—Writing to the *British Medical Journal*, Mr. Hart says: The weak point which I laid my finger on, was the evanescent character of the membership, which then depended upon annual delegation from the respective State Societies, which are the constituent bodies, corresponding in that respect, but differing in others, from our Branches. There are still, however, some other defects of organization, which I think could easily be remedied, but which hinder the growth of the American Medical Association. On some of these I have been in consultation with members of the executive and have been asked to renew them in writing; they were meantime received with approval. The system of election of the governing body is capricious, and does not provide for stable and complete representation, but leaves room for much canvassing and wire pulling, and by its elaborate incoherence raises opportunities for side issues and local contests quite irrelevant to the true objects of the Association. Some of the principles which at present govern the selection of matter for the *Journal* and the conduct of its editorial department are incompatible with the high scientific, professional, and literary attractions which it ought and might easily be made to present. All this might be altered without additional expense for the moment, and the *Journal* be made to serve the best interests of the Association and the profession, and to add largely to its resources, which could then be available for making its pages yet more attractive, so that it would—like the *British Medical Journal*—be the chief recruiting agent for the Association. This position, it is acknowledged on all hands, it does not at present occupy, faithfully and ably as it has been edited by Dr. Culbertson and his distinguished predecessors, among whom Dr. N. S. Davis, the founder of the Association, holds an honored place. My suggestions bear chiefly on the transference of the power of election of the governing body from the "fortuitous concurrence of atoms"—as it has been described in our columns by a correspondent—called a "general meeting" to the county societies, who are the constituent bodies, and who should therefore be the elective power. From these representatives should be constituted the sub-committees for detailed work, who should act under and be governed by its authority. There are at present more than one separate controlling committee of "trustees," of "judicial action," of "nomination," etc., who act independently of each other, and are constituted hurriedly and by caucus influence at the general meeting—a system which might well injure any society, and which has more than once provoked deplorable and painfully mischievous schisms. It speaks highly for the inherent and unquenchable vitality of the principle of the Association—"broad based upon the people's will"—and of the vigorous love of the profession and the Association which actuates the most respected members, that the Association has ridden successfully through all such storms. It survives and develops, but with maimed vitality, throughout the year, and without that powerful influence on public affairs and professional progress which it might derive from better constituted committees of government, and of public and parliamentary administration, and from a more attractive and effective voice and tongue in its *Journal*. In saying this I speak of new things, and with none but the most appreciative and respectful spirit. The meeting was large and much of the work was first-rate.

An Epileptic Canary.—M. Féré tells us (Société de Biologie, June 8th) that epilepsy is not unfrequently met with among birds. Hitherto, however, only two such examples have been recorded in detail. M. Féré has recently had under observation a canary thus affected. The attack commenced suddenly with a kind of aura, the bird extending its wings. This movement was followed immediately by a turning of the head to one side and then the animal fell. Generalized tonic spasms were then succeeded by clonic spasms, these stages being followed by a period of stupidity, often accompanied by impulsive acts.

Society Reports.

American Medical Association.

Forty-fourth Annual Meeting, held in Milwaukee, Wis., June 6, 7, 8, and 9, 1893.

(Special Report by Telegraph to the MEDICAL RECORD.)

(Continued from p. 58.)

SECTION ON SURGERY.

THIRD DAY, THURSDAY, JUNE 8TH.

Tumors of the Neck.—DR. W. L. RODMAN, of Louisville, read a paper on this subject. The deep cervical fascia plays an important part in tumors of the neck, sometimes preventing deep tumors from appearing superficially for years. It is for this reason that congenital tumors may appear only in adult life. The author reviewed concisely and clearly the various kinds of tumors, cystic and solid, with their diagnosis and treatment. Bronchoceles should be excised if possible; so also should multilocular cysts, but their numerous adhesions render this often a serious undertaking.

Partial thyroidectomy is indicated for thyroid cysts, as complete thyroidectomy is invariably followed by myxœdema.

The author has met with two cases in the adult where a circumscribed swelling of the sternomastoid muscle simulated a solid tumor. This is much more frequent in infants, especially after a breech delivery.

Unless seen very early, malignant tumors of the neck are not operable, as an elimination of the disease would require too great a loss of tissues. Surgery also promises but little in lymphadenoma.

In tubercular glands of the neck the submaxiliary are always the ones first affected, followed by the occipital, the subclavian, and later the deep glands. The best treatment is the total extirpation of the glands and their capsules, *en masse* if possible. A temporary section of the sternomastoid muscle is of great benefit in this operation. If not extirpated, the glands remain as a constant source of danger to the individual.

In the discussion of the paper DR. MACLEAN expressed surprise that excision of hydrocele of the neck should be preferred to tapping and injecting iodine, which had met with universal success at his hands.

DR. MUDD expressed a doubt as to the invariable sequence of myxœdema upon complete thyroidectomy in this country, where we are free from the taint of cretinism. He has performed complete thyroidectomy several times and has seen no signs of myxœdema in his cases.

Nephrectomy or Nephrotomy.—DR. JOSEPH PRICE, of Philadelphia, in discussing this question said that incision and drainage of the kidney are no more dangerous than the same procedure elsewhere in the body. In pyonephrosis the danger lies in delay. The importance of accurate diagnosis is therefore seen. Aspiration of the kidney is not to be lightly undertaken for diagnostic purposes, as the field is large and the chance of hitting the right spot is small. Owing to the greater mortality in nephrectomy, and to the difficulty of exactly determining the condition and the power of adaptability of the other kidney, and also because of his belief that all kidney tissue which has any secreting power should be spared, the author advises nephrotomy rather than nephrectomy wherever the more radical operation is not clearly indicated.

Surgery of the Ureter.—DR. W. VAN HOOK, of Chicago, presented a communication on this subject. Until recently, he said, accidental injuries to the ureter in laparotomies have been considered irremediable, and the kidney has been extirpated primarily or secondarily. The author has devised a method of uniting the severed ureter so that no stenosis follows. The cut end of the cystic portion is closed by a ligature, and a longitudinal incision made just below the ligature. The end of the renal portion is slit up a little, and the whole lower end is introduced into the longitudinal incision by means of a double leading thread, and is held there by passing the threads through the walls of the cystic portion a little below, and knotting them on the outside. No suturing is necessary. The author calls this lateral implantation.

If the section is near the bladder, the renal end is brought to the abdominal surface to drain, and the bladder is also brought up and stitched to the abdominal wall as high up as possible.

Later, after the firm fixation of the bladder in this position, the ureter is inserted into the bladder; or if it is not quite long enough, a new ureter can be made by a plastic operation on the bladder-wall.

The insertion of the cut ureter into the rectum is primarily dangerous, and also frequently leads to ureteritis, owing to the difference in the physiological conditions of the two mucous membranes. So pyonephrosis is a secondary danger, and has almost always resulted in the author's experiments upon dogs.

After reviewing the methods of other surgeons in the treatment of section of the ureter the author maintained that nephrectomy for that cause alone was no longer justifiable.

Radical Treatment of Hernia.—DR. H. O. MARCY, of Boston, presented an analysis of one hundred and thirty-three cases of hernia operated on for the purpose of radical cure. In the author's one hundred and thirty-three cases there were no deaths; there were six recurrences, although in over one-third ten years have elapsed since operation. In only one has a truss ever been worn since operation. Attention was again called to the excellency of the kangaroo-gut for buried suture. Dr. Coby, of New York, has had fifty successive cases of primary union with its use.

The author believes that the normal relations of the parts should be restored as far as possible in the operation, and thinks there is too much disturbance of anatomical relations in Halsted's method.

Aneurism of the Femoral Artery.—DR. DONALD MCLEAN, of Detroit, reported two cases of aneurism of the common femoral artery, treated by ligature of external iliac. Both cases were traumatic, one from a bullet-wound, the other from a knife-stab. The ordinary surgical rule of cutting down and ligating above and below is too dangerous in aneurisms of this artery. Ligating the external iliac artery was easily accomplished in both cases and the results were perfect, with no sign of recurrence of the aneurism.

Establishment and Maintenance of a Urethra above the Symphysis Pubis in Chronic Prostatic Obstruction.—D. J. HAYES, of Milwaukee, showed one case of this nature and cited another where the operation had afforded immense relief. The patients have voluntary control of the bladder, and are able to hold water five hours. The bladder empties itself completely. The operation performed was a Hunter Maguire's—a suprapubic cystotomy, with a withdrawal of the tube in three days, and the sinus kept open by the insertion of a miniature steel sound.

In the discussion DR. MAGUIRE said he had performed the operation sixty-five times, with only two deaths, both from pre-existing pyelo-nephritis.

Rupture of the Small Intestine.—DR. H. C. DALTON, of St. Louis, reported three cases of traumatic rupture of the small intestine, with operation. In the first case operation was delayed until the second day, and resulted fatally. The other two cases were operated on the first day and the result was successful.

The diagnosis is of course, the important point. Faintness, shock, paroxysmal pain, pain on pressure, tympanites, nausea, and vomiting are the important symptoms. If, in spite of rest for several hours, the paroxysmal pain and the vomiting continue, a laparotomy is strongly indicated.

Ureterectomy.—DR. H. A. KELLY, of Baltimore, said that ureterectomy is the removal of a part or whole of

the ureter. It is bad surgery to remove a diseased kidney and leave behind a diseased ureter; the two should be removed together. The author reported a successful case of nephro-uterectomy for primary tuberculosis of one ureter with secondary extension to the kidney.

The diagnosis was made by catheterizing both ureters and analyzing the urine so obtained. Pictures and diagrams were shown of a new method of reaching the kidney and ureter retroperitoneally, the incision being more lateral than usual.

FOURTH DAY, FRIDAY, JUNE 9TH.

A New Treatment of Hernia was the title of a paper read by DR. ALEXANDER DALLAS, of New York. The writer said that there were three and one-half millions of herniæ in this country, eighty per cent. of which were inguinal. This shows the importance of the lesion, especially to general practitioners, who should understand its treatment better than they do. Skilful palliative treatment is almost always successful in childhood.

The author has devised a new truss which meets the indications necessary better than any existing truss. It is a light steel spring, arching over and supported by the crest of the ileum, and held in place by a single transverse strap. The posterior pad rests upon the sacrum, the anterior one is hollowed and presses downward over the internal ring. The truss is not worn in bed, but a home-made bandage is applied in the few cases where any appliance is necessary. Massage and electricity are also used to promote the strength of the muscles forming the rings. The success by this method has been pronounced. The author condemns the turning over the palliative treatment to instrument-makers.

He showed, also, a new instrument for the operation of radical cure, when it becomes necessary. The instrument is inserted into the canal, and on being withdrawn scarifies the walls of the canal, insuring a more firm union. The patients are kept in bed only four or five days, and wear his truss for three or four months longer.

The author further suggested that strangulated hernia would often yield to extremely gentle taxis after the subcutaneous injection of morphine and atropine, and the exhibition of warm drinks, including strychnia and digitalis. The proper position of the patient is necessary. Failing in extremely gentle taxis one should then immediately resort to the knife, an anæsthetic being unneedful, and indeed harmful, owing to increased shock and subsequent vomiting.

End-to-End Suture of the Intestine.—DR. E. A. TAPPEY, of Detroit, reported a case of successful end-to-end suturing of the intestine. It was a secondary union of the small intestine, subsequent to a primary formation of an artificial anus for strangulated hernia. Convalescence was rapid and uneventful. Although somewhat fearful of the foreign-body element in the Murphy-button method, the writer intends to use it at the next opportunity.

In discussion DR. MURPHY said that he felt absolutely confident that no harm would follow from the button as a foreign body. In gunshot wounds of the intestine, if multiple perforations existed, they were generally in proximity, and two feet of the intestine could be resected, including all the perforations, with the use of a single button, and without necessarily evil results.

DR. GASTON reported the successful removal of thirty inches of small intestine, the silver suture being used.

A New Applicator for Introducing Medicaments into the Urethra, Uterus, and Rectum, was shown by DR. A. B. KIRKPATRICK, of Philadelphia. The instrument was first shown at a local society meeting in 1881, and has met with great success since then. It is a hollow tube with a piston-rod, and by its use pencils of powder can be lodged at the affected portion. There are three sizes of tubes, fitting the calibre of the urethra, uterus, and rectum.

In gonorrhœa the author uses a pencil of powder consisting of equal parts of iodoform and boric acid, and he reported four cases to show the excellent results of such treatment.

A New Method of Treatment of Strictures of the Rectum.—DR. J. B. BACON, of Chicago, read a paper with this title. The author's method is to build an entirely new channel around the connective tissue of the stricture, and is only made possible by the use of the Murphy button. After laparotomy in Trendelenburg's position the sigmoid flexure is united to the rectum below the stricture by means of the Murphy button, one part of which is inserted in the sigmoid flexure and held by a loop stitch, the other part being inserted through the anus by the assistant and pushed through a small incision in the rectum; no suture is possible.

The loop of flexure and rectum between the points of this union is made to adhere together by means of scarification and a few stitches. After the button comes away, from the sixth to the fifteenth day, a long pair of forceps is inserted through the anus, one jaw passing through the artificial channel, the other through the stenosis of the rectum. The forceps are closed, having in their grasp one side of the stricture and the septum of the loop formed by the anastomosis. The forceps come away in a few days, bringing with them part of the stricture and septum, and leaving behind a fair-sized rectum. If the stricture is a low one and it is doubtful whether the sigmoid flexure can be made to reach below it, the rectum can be exposed by Kraske's method, and the upper part of the rectum can be brought down and anastomosed instead of the sigmoid flexure. The further procedure is the same as above stated.

By this method a cure results, and, the sphincters being preserved, incontinence of fæces is avoided. Post-mortem specimens from operations successfully performed on dogs were shown to the Section.

A New Material for Surgical Splints and Jackets, with the Method of Its Application.—DR. E. A. TRACEY, of Boston, has prepared wood-pulp so that it successfully meets all the indications necessary in a splint material. It comes in sheets, can be cut into the necessary shapes, and when moistened becomes plastic. When held in place by a bandage it soon dries. If desirable it can be covered with silicate of potash to render it stiffer and keep it cleaner.

NEW YORK STATE MEDICAL ASSOCIATION, FIFTH DISTRICT BRANCH.

Ninth Annual Meeting, held in Brooklyn, May 23, 1893.

THE morning session was principally occupied by the address of the president, DR. S. B. WYLIE MCLEOD, the business of the Branch, and biographical sketches of Fellows deceased during the past year.

Chloroform in 1893.—The only scientific paper was one by DR. EDWARD R. SQUIBB, on "Chloroform in 1893." In it he presented the latest facts in regard to the use of chloroform as an anæsthetic, and stated that even when this agent was administered in the purest form and with the utmost precaution a certain number of deaths would occur which were attributable solely to the potency of the drug itself. A larger proportion, probably one-half of the deaths caused by chloroform, were due to cardiac syncope. The sooner that the fact of its unavoidable danger was generally accepted, the sooner, he said, would the profession be united in adopting a safer anæsthetic. He had found by personal observation that the ether which was employed in England was of a very impure character and therefore highly objectionable, and he believed that this was one reason why the English surgeons were so prejudiced against the use of this agent.

The Prevention of Blindness from Ophthalmia Neonatorum.—At the afternoon session the first paper was by DR. L. H. W. ALLEMAN, on this subject. While complete antisepsis of the birth-canal was very desirable, he said, it was almost impracticable to secure, and therefore

the simplest plan was to treat the eyes of the new-born child. He urged the general adoption of the method of Credé, who advised dropping into the eyes, after the lids had been thoroughly cleansed, a two per cent. solution of nitrate of silver. He thought it criminal to neglect some such precaution in any case that was at all suspicious, and while it might perhaps often be unnecessary in private practice, he believed it would be of great service to adopt it as a routine measure. If it should be thought that a two per cent. solution was too irritating, a one per cent. solution of nitrate of silver might be employed. Up to the present time ophthalmia neonatorum constituted the cause of blindness in a very large percentage of cases; but as small-pox had been practically eliminated as a cause of blindness since vaccination had been generally adopted, so this could be if a proper feeling could be created on the subject in the minds of the community. Among the poorer classes, mothers did not at all appreciate the danger attending their babies' sore eyes. In discussing the paper Dr. T. H. Burchard stated that the number of cases of ophthalmia neonatorum in his venereal service at Charity Hospital, on Blackwell's Island, had been reduced from about forty-five per cent. to one per cent., by enforcing scrupulous antisepsis of the mother's vagina and external genitals before and during delivery. Dr. Coffin having remarked that in his opinion nitrate of silver was too irritating to the infant's eyes, and might of itself possibly be a cause of ophthalmia, Dr. Squibb pointed out the fact that the crystallized nitrate of silver is an acid salt, so that any solution made from it would cause a greater amount of irritation than one made from the fused nitrate of silver (lunar caustic), which was entirely free from acid.

Chronic Nasal Catarrh, and what the General Practitioner Can Do for It.—Dr. Edward J. Birmingham read a paper on this subject. He thought that on account of the extreme frequency of chronic nasal catarrh, which was to be regarded not as a disease, but as a symptom of various pathological conditions, every physician should have some practical knowledge of rhinology. In order to diagnosticate and successfully treat ordinary cases very little apparatus was required, and anyone by devoting a little attention to the subject could readily acquire all the skill that was necessary in making examinations and in the application of remedies. In case any condition were present which required operative procedures the general practitioner would thus be enabled to detect the trouble and send the patient to a specialist, and if this were not the case he would be fully competent to conduct the treatment himself. The ordinary nasal douches, he said, were apt to prove injurious, and it was equally injurious to forcibly inject fluid into the nasal cavity. As a substitute he exhibited a convenient douche, by means of which fluid was made to pass gently through the passages merely by gravity. He also explained the method of using sprays and insufflations, anteriorly and posteriorly. As an alkaline and antiseptic agent, he had found glyco-thymoline a most admirable preparation, and he had also found a solution of iodoform and tannin in ether (which left the iodoform and tannin deposited upon the mucous membrane) extremely efficacious. For insufflation stearate of zinc was one of the most useful remedies, and in atrophic catarrh the use of Reichard's ventral oil had been attended with good results in his hands. In conclusion, he spoke of the necessity of judicious constitutional treatment in connection with local measures, and incidentally remarked that if any permanent benefit was to be expected it was essential that the patient should entirely give up smoking, if he were addicted to the habit.

The Treatment of Certain Forms of Fracture.—Dr. Charles Phelps then read a paper with this title. Among those referred to were fracture of the vault of the cranium, in which he strongly recommended early trephining, which he regarded as often of great service in the prevention of subsequent trouble. In fracture of the patella he said that his recent experience had only served to confirm his opinion of the great superiority of the method of wiring the fragments together. In this way he had in all cases been enabled to secure perfect osseous union, and without a single drop of pus forming in the joint. In his later practice he had entirely abandoned the use of strong antiseptic solutions (now employing a bichloride solution of the strength of only 1 to 20,000), and he had become more and more convinced of the utility of skilled massage as an adjuvant in the treatment. The plan of subcutaneous suture he considered radically defective, as it never secured osseous union. In Colles' fracture he had found that the mistake was commonly made by surgeons of having the splints too long. In ununited fractures he considered the methods of drilling and of resecting and wiring the ends of the fragments the most satisfactory, and the former of these was usually preferable.

The last paper was one by Dr. H. B. Judson, on "The Management of Hip Disease."

THE NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, April 12, 1893.

H. P. Loomis, M.D., President, in the Chair.

Round-Cell Sarcoma of the Thigh.—Dr. F. Ferguson presented a tumor which had been removed from the thigh of a German stone-cutter, thirty-one years of age. His work necessitated frequent pressure on his thighs. About two years ago he first noticed a small, hard lump, which since then had slowly increased in size. The specimen was found to consist of a mass of soft tissue, partly fibrous and partly muscular, and a spindle-shaped tumor, 6 ctm. long and 4 ctm. in its largest transverse diameter. The interior had undergone extensive degeneration, and externally there was an ill-defined fibrous capsule. A section of this tumor under the microscope showed extensive areas of small round cells, supported by a fairly regular stroma of fibrous tissue. There were many areas of degeneration, and the vascular supply was rather scanty. Many slides had been stained for tubercle bacilli, but none were found.

Dr. T. M. Prudden said that notwithstanding the peculiarities presented by the specimen, he considered it one of small, round-cell sarcoma. The lack of blood-vessels might, perhaps, account for the areas of necrosis present.

Cerebral Thrombosis Simulating Cerebral Apoplexy.—Dr. Ferguson then presented a brain, taken from an Italian, forty-eight years of age. He had only very recently come to this country, and no history of previous illness could be obtained from his friends. He was admitted to the New York Hospital House of Relief, on April 9th, and it was stated at that time that at 5 A.M., while at his residence, he had had a convulsion. When found by the ambulance surgeon there was complete hemiplegia on the right side, and he was unable to articulate, but was partially conscious. He had one convulsion soon after his admission, and another on the following morning, in which he died. On admission his temperature was 99° F., that afternoon it was 98.6°, and on the next morning, prior to his death, the temperature reached 100.6°.

The autopsy revealed congestion of all his organs, especially the lungs and kidneys. The left hemisphere of the brain was generally softened; the occipital and temporo-sphenoidal lobes of this side were quite soft, and contained innumerable punctate hemorrhages. There was also a firm thrombus in the internal carotid and middle cerebral arteries on the left side. The thrombus was composed of small round cells, blood, and fibrine. In the examinations made the vessels containing the thrombus were found normal. The vessels of the pia on both sides were also normal. Fragments of the thrombus were carefully stained for micro-organisms with a negative result. These examinations will be pushed still further and a report made at some future time.

Dr. Ferguson said that some time ago he saw a case of cerebral softening without the presence of a thrombus. Here the lumen of the middle cerebral artery was found to be considerably obstructed by an endarteritis. This partial obstruction, increased in all probability by muscular contraction of the remainder of the wall, had so diminished the arterial supply to the brain as to give rise to the softening. In another case, a woman, while lifting a heavy wash-boiler, suddenly fell down, and death occurred within forty-eight hours, with all the usual symptoms of cerebral apoplexy. Post-mortem examination in her case showed a thrombus in the internal carotid and middle cerebral arteries, without any lesion of the arteries or of the heart.

Dr. Prudden suggested that it would be well to avoid the use of such vague terms as apoplexy; it would be much more definite to speak of cerebral hemorrhage, cerebral thrombosis, and cerebral embolism, when these conditions actually exist.

An Extremely Large Tubercular Kidney.—Dr. A. T. Weston exhibited a very large tubercular kidney, which had been removed from a woman, aged thirty-seven, who gave a general history of tuberculosis dating back to when she was five years of age. She had had fairly good health up to last November, at which time she was seen by Dr. J. L. Hopkins, who found a tumor much smaller than the present specimen. It extended from the brim of the pelvis up to about the fifth rib, and filled both thorax and abdomen, extending beyond the median line to the right. The urine contained a small quantity of albumin and some casts. The principal symptoms for three or four weeks previous to her death were intense nausea, vomiting, and severe pain. At the autopsy the lungs were found to contain cavities and cheesy nodules; the liver was large, soft, and yellow; the stomach was sacculated, owing to pressure of the tumor; the other kidney was normal.

Dr. Ferguson said he had examined the tumor, and found at one or two points on the periphery of this multilocular cyst a few kidney tubules. The ureter was completely occluded by inflammatory material. Scrapings from the interior of the cyst, when stained, showed innumerable tubercle bacilli. This was the largest tubercular kidney he had seen.

Dr. George P. Biggs said that he had examined some sections at the periphery, and had found typical tubercular tissue.

Abdomino-peritoneal Pregnancy.—Dr. Albert C. Stanard, present by invitation, exhibited a specimen of what he supposed to be an abdomino-peritoneal pregnancy. He had removed this specimen by operation from a woman, twenty-three years of age, who had been married five years, and had had one child about a year after her marriage. About six months after this she contracted a gonorrhœa, which lasted for eight months. About last August she began to complain of headache and backache, but menstruation continued, and she had none of the usual symptoms of pregnancy. On November 13th the menstrual flow was rather more profuse than usual. On December 17th, as a result of unusual excitement and effort, she was seized with sudden pain and uterine hemorrhage, and for the next month there was a variable flow of blood, and considerable pain in the right iliac and sacral regions. When first seen by the speaker, on March 1st, there was a tumor occupying almost all of the true pelvis, and the uterus was enlarged to about three times the normal size. Cœliotomy was performed, and the Fallopian tube on the right side was found to lie across the top of the tumor, with its end adherent to it. The adhesions were separated and the tumor removed with the tube and ovary. The fimbriated extremity of the tube is just within the wall of the tumor. The tumor was globular in shape, measured about four inches in diameter, and was filled with clots. An examination by a careful pathologist had failed to show any remains of gestation. He thought it possible that gestation had existed from August to December, and that then the fœtus was killed, and since that time had undergone absorption.

Dr. S. T. Armstrong doubted very much if entire absorption of the products of gestation could occur in so short a time. It was more probable that the case was one of salpingitis, and that a hemorrhagic effusion had occurred at the period mentioned.

The President agreed with the preceding speaker that the time was too short for entire absorption to have occurred.

Dr. Ferguson remarked that the general appearance of the interior of the cyst resembled that of a gestation sac.

Empyema and Sub-diaphragmatic Abscess.—Dr. E. Le Fevre reported a case which came to him about one month ago. The patient was twenty-five years of age, and had been well up to about one year before, at which time he had an attack of "the grip." About four months later he was suddenly seized while at work with a severe pain in the lower part of the left side of the thorax, accompanied by very severe cardiac palpitation. He was carried home, and remained in bed for about three weeks, and during this time he lost about thirty pounds in weight, and had severe chills, with some pain in the chest, but the expectoration was scanty and not blood-stained. Suddenly his breath became offensive, and within a few hours there was a gush of offensive pus. From this time on there was an abundant fetid expectoration, but no bacilli were found in it. At the first examination, from the angle of the scapula to the base of the lungs there was flatness on percussion, loss of vocal fremitus, and an entire absence of all voice-sounds. When seen the next day there was amphoric breathing all over this side. Subsequently Dr. H. P. Loomis, having found pus with an aspirating needle, inserted a drainage-tube.

The President said he had considered the case one of pyo-pneumothorax. A long needle was inserted just below the angle of the scapula and at various other points, without drawing pus, but finally on inserting the needle high up between the scapula and the vertebral column, pus was obtained, and a pint and a half was then drawn off with the aspirator. The patient improved for about one week, when it became necessary to secure drainage, and a tube was inserted into the pleural cavity near the diaphragm. The sputum became scanty and less offensive, but the patient's general condition was not improved, and he died finally of exhaustion.

Dr. Warren Coleman said that as he had made the autopsy he would present the specimen and describe in detail the pathological condition.

The right lung was removed without difficulty, and was normal. The upper lobe of the left lung was free, but the lower was bound down to the outer and posterior chest-wall and to the diaphragm. While trying to break up the adhesions a gush of pus was noticed to come from under the left lobe of the liver. On lifting up the diaphragm on this side, an opening was found leading into the pleural cavity. The finger could be passed through this opening and made to protrude through the chest-wall where the drainage-tube had been inserted. A portion of the left lower lobe was cut off, and left attached to the diaphragm. The upper lobe of this lung was found to be normal, and the lower completely atelectatic. No pus was discovered in the lung nor in the pleural cavity, and no part of the lung was gangrenous. On attempting to remove the spleen, a fresh gush of pus was observed, so the liver, diaphragm, stomach, and spleen were removed as a whole. Several small abscesses were found between the liver and the lesser curvature of the stomach, but not involving the structure of either organ. An abscess about two and a half inches long and one inch wide was found externally on the spleen. On the upper surface of the left lobe of the liver, between it and the diaphragm, was another abscess of about the same size, but not involving either organ. The largest abscess of all was bounded above by the left lobe of the liver, to the left by the spleen, and below by the stomach.

It had not involved any of these organs except the spleen. On the surface was a pyogenic membrane. The pus had a sickening, gangrenous odor. Communication of the cavity with the opening in the diaphragm was established through the ulcerated upper portion of the spleen.

Dr. George Biggs said that, as it was very rare for pus to originate below the diaphragm and extend upward into the chest unless the suppurative process were distinctly connected with the organs in that location, it was more probable that in the case just reported the abscess formed in the chest. This theory was strengthened by the fact that the sub-phrenic adhesions were of comparatively recent formation.

Carbolic-acid Poisoning.—Dr. George P. Biggs exhibited a stomach, showing a very extensive eschar on the mucous membrane, as a result of carbolic-acid poisoning. The eschar was white and leathery, and involved chiefly the œsophageal end and the fundus, although quite marked around the pylorus. Strange to say, the patient's lips, mouth, and œsophagus showed scarcely any traces of the corrosive action of the acid.

Partial Obliteration of the Vermiform Appendix.—Dr. Biggs presented an appendix which had been removed from a man dying of chronic alcoholism. The appendix consisted of a small pouch about ¾ ctm. in length, and beyond this of a fibrous cord 2 mm. in diameter, which, apparently as a result of an old inflammation, had been united by adhesions to the neighboring tissues. The effect of this appendicitis had been to cause a complete obliteration of more than one-half of the appendix. Sections of the fibrous cord showed, under the microscope, unstriped muscular tissue, fibrous tissue, and many small round cells.

Sub-Diaphragmatic Abscess from Biliary Obstruction.—Dr. George Biggs also presented specimens from a patient, sixty-four years of age, who was admitted to the New York Hospital, March 19th, with a history of syphilis, alcoholism, and malaria. For eight years he had had attacks at intervals of from two weeks to two months, beginning with a sharp chill, and followed by fever and sweating, but without any pain or jaundice. The attacks were preceded by a more abundant flow of pale urine, and followed by a diminution in the secretion of urine, and a darkening of its color. For the last three or four years there had been deep jaundice. Five weeks before his admission he experienced for the first time considerable soreness to the right of the umbilicus, and eleven days before coming to the hospital he had one of these attacks, but this time it was associated with severe pain. On admission his pulse was 88; respiration, 24; temperature, 96° F.; in fact he was nearly moribund. The area of hepatic dulness was found to extend from the fifth rib to two inches below the free border of the ribs, and below this point the distended gall-bladder could be felt. He died rather suddenly of heart-failure.

At the autopsy the liver was found to be considerably enlarged, and for two and a half inches below the free border of the liver was the distended gall-bladder. The right thoracic cavity contained 1,000 c.c. of yellowish fluid containing biliary coloring matter. Just beneath the diaphragm was another collection of fluid, between the upper surface of the liver and the diaphragm, measuring 800 c.c. Below the diaphragm the wall of the cavity was formed by adhesions between the left lobe of the liver, stomach, duodenum, transverse colon, and the side of the gall-bladder. There was also a recent perforation through the centre of the right half of the diaphragm, connecting this cavity with the right pleural cavity. An abscess the size of a hen's egg, at the junction of the right and left lobes, communicated with the abscess on the left lobe of the liver, and with the fundus of the gall-bladder by an ulcerated opening 2 × 1 c.c. The cystic, hepatic, and common ducts were very much dilated. In the hepatic duct was a wedge-shaped block of cholesterine, two inches in its largest diameter, the small end projecting downward. The opening of the common bile-duct was perfectly normal. The fluid in the abscess cavities contained large numbers of minute black calculi. The large gall-stone probably formed in the gall-bladder and passed through the cystic into the common duct, and back into the hepatic; it probably caused obstruction of both the hepatic and cystic ducts. The rupture into the thoracic cavity certainly occurred only a short time before death.

Abscess of the Liver.—Dr. D. H. McAlpin presented specimens from three cases of abscess of the liver. In the first case there were multiple abscesses of the liver with perihepatitis, adhesions to the diaphragm, adherent pleura, rupture, and expectoration of muco-pus. Although there was no history of diarrhœa there were necrotic areas in the intestine, and the amœba of dysentery was found in the intestine. In the second case there was an abscess of the posterior superior portion of the liver which was enclosed by adhesions to the diaphragm. It pointed in the hypochondriac region, and the incision was made at this point and drainage established. The intestines were normal. In this case there was a history of a "strain" from lifting a heavy weight. The third patient was an Italian, with an ulcerating carcinoma of the pylorus. Sections under the microscope showed multiple abscess, and around the portal vein round-cell infiltration and beginning abscess formation.

Small Cirrhotic Kidneys—Acute Uræmia.—Dr. J. W. Brannan presented specimens from a man, forty-seven years of age, who had been taken ill on April 5th with cough and rapid respiration. There was no alcoholic history. On admission he was unable to talk although not comatose; pulse, 125, irregular and weak; respirations, 44; temperature, 98° F. There were a few râles over the lungs, and a diastolic murmur at the base of the heart. About fifteen hours before death the temperature was 98° F. in the rectum. At the autopsy the left lung was found adherent throughout; the pericardium was adherent to the heart; the heart was hypertrofied and weighed 16 ounces. There was atheroma of the aorta; the brain was normal except for some anæmia. The two kidneys weighed 3½ ounces, and the urine found in the bladder had a specific gravity of 1.009, and contained three-fourths per cent. albumin.

Intestinal Obstruction.—Dr. Brannan also presented specimens from a case of intestinal obstruction. The patient walked into the hospital yesterday morning complaining of pain in the abdomen. His temperature was 101° F. This morning at four o'clock he went to stool. One or two hours later he was found dead in bed. A hurried post-mortem examination made this evening showed nothing abnormal in the brain or lungs; the kidneys were large and firm, and showed the lesions of chronic diffuse nephritis; the heart was small and the left ventricle thickened. An examination of the abdominal cavity showed chronic peritonitis and some recent exudation of lymph. A portion of the transverse colon was constricted and congested, and its mucous membrane softened. Death probably resulted from this obstruction.

The Society then went into executive session.

To Supplement the Trained Nurse.—A new form of training has been undertaken by the Massachusetts Emergency and Hygienic Association—namely, the opening of a new occupation for young women who desire to become attendants upon chronic invalids, aged persons, convalescents, and sickly children. There are many families where it is inexpedient or impracticable for the relatively well members to wait upon those other members who may be feeble or sick. The trained nurse's attentions are a step above what is required in such cases, and are, perhaps, too high-priced for a long-continued service, as in the case of a confirmed invalid. It is at the time when the trained nurse takes her departure that the trained attendant may often do much good. And some discipline and instruction will make the latter fit to take up the work of the former.—*New York Medical Journal.*

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

FIBROID TUMOR OF BROAD LIGAMENT—CALCULUS WITH A BODKIN AS NUCLEUS—ANENCEPHALOUS MONSTERS—PLACENTA PRÆVIA—LONGINGS BY PREGNANT WOMEN—ABSORPTION OF UTERINE FIBROIDS—ABANDONMENT OF IRIDECTOMY—FIRES AND HOSPITALS—COLLEGE OF SURGEONS—OUT-PATIENTS WITH MENTAL DISORDERS—HARVEY TERCENTENARY—LAW-SUIT BETWEEN QUACKS.

LONDON, June 24, 1893.

At the last meeting of the Obstetrical Society (June 7th) Dr. Handfield Jones exhibited a fibroid tumor removed from the left broad ligament, and which has been associated with ascites, giving rise to a fear that it was malignant. At an exploratory operation about ten pints of fluid were removed, and the nature and attachment of the growth revealed. Dr. A. Routh related a case of calculus formed round a bodkin, which the patient, a women of forty-eight, admitted she had introduced twenty-one years before, and it had slipped from her fingers and was never seen afterward. He also showed an anencephalous monster. The skin was missing over the vault of the skull, and was replaced by a membrane, perhaps the dura mater; the parietal and frontal bones were wanting, and the basilar bone very rudimentary. The brain and cord seemed to be absent, but there were traces of an envelope. Dr. Bland Sutton said he had satisfied himself that in these cases a spinal cord did exist in the shape of a tube, with very delicate walls, from which the nerves arise. If the skull be floated in water in a fresh specimen, the sac could be clearly seen with brain matter within, and continuous with the tube in the spinal canal. Of course, if the membrane over the skull be ruptured during labor, the brain substance escapes and might be looked upon as fatty matter.

Dr. Pollock related a case of placenta prævia in which no hemorrhage had occurred before labor, unless what the woman called "bleeding piles" may be so considered.

Dr. A. Giles then read a paper on the "Longings of Pregnant Women." He had wished to determine whether these were due to disturbed nervous action, or were cravings for some material necessary to the mother or fœtus. He had inquired into three hundred cases of natural craving as distinguished from those clearly morbid. He found "longings" immensely more common in primiparæ than in multiparæ. They decreased with each child born. They were also much less common in the unmarried. The author of this laborious inquiry concludes that numerous cases are really only felt in consequence of the popular tradition on the subject. Perhaps the disturbance of digestion which is so common may give rise to fancies which at other times would be unnoticed, but, in the impressionable condition of nervous primiparæ familiar with the popular tradition, assumes unusual importance in the patient's mind.

Mr. A. Doran then related a case of absorption of fibroid tumors of the uterus before the menopause. The patient had been injured by a fall; inflammation had been thus set up, followed by resolution of the inflammatory products, and then by slow disappearance of the tumor. Such cases, associated with congestion, inflammation, or injury, have been recorded by Rigby, Prieger, Playfair, v. Mosetig, and Guéniot. Moreover, Mr. Doran has collected thirty-seven cases of the disappearance of fibroids—some not complete—and although errors of diagnosis may be suspected, so many cases by experienced authorities leave little doubt that such tumors do sometimes disappear spontaneously.

The abandonment of iridectomy is a subject interesting many just now. At the Ophthalmological Society (June 8th), Mr. Swanzy gave an account of one hundred operations for uncomplicated senile cataract by the combined method, the iridectomy as he performs it giving rise to very slight deformity. Mr. Critchett rather supported Mr. Swanzy, as did several others, but the President (Mr. Power) said, notwithstanding the carefully reasoned arguments, he preferred the simple operation, and thought the iridectomy added to the risk. A member asked whether anyone present, if he had only one eye, would deliberately select the simple operation? To this the president replied he would without hesitation. A show of hands was asked, and nineteen were in favor of the combined and four for the simple operation. Additional interest attaches to this discussion, as the next day the Bowman Lecture before the society was delivered by Mr. Pridgin Teale, who is known to have given up iridectomy, and took for his subject the question of its abandonment. He thinks the whole question hangs on the exact incision made, and he described in great detail the operation he performs, and the lessons he drew from his last one hundred cases. The incision he makes is entirely within the cornea, is almost linear, and yet without iridectomy. He has employed his method for the last twenty years, with most satisfactory results as to vision and comparative freedom from complications, as well as to perfection of scar, pupil, and anterior chamber, and he thinks that anyone adopting his plan in all its details would surpass his former successes either with the so-called simple or the Graefe operation with iridectomy.

The terrors of a fire are greatly increased when it occurs in or near a hospital. While I was writing my last week's letter there was an outbreak in premises next to the Royal Free Hospital. Happily, the wind was blowing in the direction away from the hospital. Otherwise, we should probably have had to lament a horrible catastrophe; as it was, some of the patients were moved to another part of the building, and preparations made to face the emergency. The hospital is provided with hydrants, and these were promptly brought out and did good service until the arrival of the fire brigade. This hospital is the one in connection with the Women's Medical School, and I am told that about thirty women students who were present at the time took their places at once, as they had been taught to do in a regularly held fire drill. I am also told that the surroundings of this hospital are a constant menace, not only from such stores of wood as were burnt this time, but on one side there is actually a cartridge factory. Surely some effort should be made to diminish these risks.

The approaching election at the Royal College of Surgeons is exciting interest even among those who have no vote. Sir William Savory at last definitely retires. He is credited with being the leader of the obstructives, and it is expected that the reform party will have a better chance.

St. Thomas's Hospital has started an out-patient department for mental cases, and is receiving the congratulations of medical journals on being the first to supply this want. And yet I remember how the journals, some years ago, scoffed at such a notion when an attempt was made to start a special hospital for the treatment of mental disorders as out-patients. Perhaps what was a scandal and foolishness, if not insanity, in a special dispensary, becomes propriety and wisdom when adopted by a big general hospital!

The tercentenary of Harvey's admission to Gonville and Caius College, Cambridge, was duly celebrated there on the 16th, when Sir J. Paget, Professor Huxley, and other London biologists and practitioners were present.

A curious trial took place this day week. A man whose name had been removed from the register sought to restrain a former clerk from continuing to publish a book alleged to be pirated from that of his *quondam* employer. It seems the clerk or assistant had set up as a rival quack, and it was alleged that he had also used, with alterations, testimonials addressed to his master as a curer of consumption. The judge thought the business might "possibly be a cruel and nefarious system of obtaining money by false pretences from persons who are induced

to believe themselves consumptive." He retained the books and papers in the custody of the court, and directed the official solicitor, and if necessary the public prosecutor, to look into the matter, with leave to either party, if so advised, to put the case into the paper for judgment on July 3d.

TO DETERMINE THE STOMACH END OF THE DIVIDED INTESTINE.

To the Editor of the Medical Record.

Sir: In your issue of June 24th you copy from the *Medical Press* a sodium-carbonate test for determining the stomachal end of the divided gut, regarding which I wish to mention an anatomical point that will meet every possible contingency in the matter under consideration.

Grasp the divided ends of the gut and hold them as though it was a simple, undivided loop of intestine, and so that the sides of the mesentery look to the right and left of the individual. Then place the finger in contact with the mesentery on one side, and gently pass it inward to the posterior attachment of the mesentery, keeping all the time in contact with the mesentery and using it as a guide. If the finger remains all the time on the side at which it was introduced, then up is up and down is down. If the finger starts in on one side and crosses to the opposite side of the abdomen and mesentery, then there is a half-twist in the loop, and what is held as the upper end is the rectal end of the loop or cut. If the finger leaves the side at which it was started, passing to the opposite side, and then returns to the side at which it was first introduced, there is a complete volvulus, and the direction of the twist and its extent is instantly determined. The anatomical basis of these facts is at once apparent when we remember that the mesenteric attachment of the small intestine is from the left of the median line above, downward, and to the right, ending in the right iliac fossa and crossing the spinal column. The test is instantly applied and gives vastly more information than that of any chemical test for determining the stomach end of a gut, and its accuracy is beyond question.

C. E. Ruth, M.D.

Keokuk, Ia.

HAIR-BALLS IN THE STOMACH OF THE OX.

To the Editor of the Medical Record.

Sir: Your issue of April 22, 1893, contains an account of an interesting case of foreign body in the stomach reported by Dr. Caroline S. Pease. This foreign body was found on autopsy to consist of the patient's own hair, strips of wool and cotton, shreds torn from a rubber protective sheet, and lacing cord from a camisole, the whole matted together and forming a solid mass weighing sixteen ounces. In this connection I deem it may be of interest to mention the "hair-balls" found in the stomachs of horned cattle, as their existence, I am satisfied, is unknown to most people. In the spring, when the long suit of winter hair is removed to make place for the new spring coat, the removal is chiefly accomplished by the process of licking the hair with the tongue. Most of the hair so removed adheres to the tongue, and is taken into the stomach with the food. If no great amount finds its way to the stomach at any one time, it is presumably passed on through the intestines and voided with the dung. If, however, it is swallowed in large quantity, it balls up and remains in the stomach. These balls become hard and dense, and attain considerable size. One on the desk before me has a circumference of twenty-six centimetres, is almost round in shape, and would make a good baseball if covered with leather, as it is so hard and firm. Smaller ones are sometimes passed *per vias naturales;* but large ones are usually found in the stomach when the animal is killed. They seem to give rise to no symptoms of discomfort, and never seem to produce ulcerations. Very truly yours,

James B. Bullitt, M.D.

Globe, A. T.

POST-PARTUM APPENDICITIS.

To the Editor of the Medical Record.

Sir: Dr. H. M. Neale, in the Medical Record for July 1, 1893, states that he has discovered several cases of post partum appendicitis, and he believes many of the cases of so-called post-partum cellulitis, pelvic abscess, ovaritis, and salpingitis, to be in reality appendicitis. This opinion is quite in line with my own observations in cases in which cœliotomy has given opportunity for verifying the diagnosis. Dr. Neale supposes that because labor contractions subject the abdominal contents to a high degree of pressure, cæcal contents are forced into the appendix, causing inflammation. This latter theory is not borne out by post-operative examination of specimens. Childbearing women and athletes frequently crush the adenoid layer of the appendix by subjecting the appendix to forcible compression against the pelvic wall. Symptoms of appendicitis may then appear almost immediately or after the lapse of weeks or months, the extent of the disturbance depending principally upon the amount of exudates in the tissues of the appendix, and the resulting opportunity for bacteria to make inroads and excursions. Prompt operation through the inch-and-a-half abdominal incision, by good surgeons, should give, in appendicitis, the death-rate of tooth-extraction, and will confine the patient to bed for a few days only, leaving an unimportant scar.

Robert T. Morris, M.D.

133 West Thirty-fourth Street, New York, July 1, 1893.

DRAFT OF A PROPOSED BILL TO ESTABLISH A BUREAU OF PUBLIC HEALTH.

The New York Academy of Medicine,
No. 19 West Forty-third Street, July 12, 1893.

The undersigned, a committee of the National Quarantine Committee of the New York Academy of Medicine, have been instructed to prepare a bill to be submitted to Congress, creating a Public Health organization in the General Government. With a view to harmonize conflicting views on the plan of organization, about which there is a diversity of opinions, in order to concentrate upon a single measure the efforts of all who are interested in securing the necessary legislation, we herewith tentatively submit the sections of a bill organizing a Bureau of Public Health, for the purpose of eliciting a full and free discussion of the subject before finally determining the precise form which the committee will adopt. While the committee believe that the plan submitted is more nearly in accordance with the opinions of those whose judgment and experience are most valuable, it is prepared to give due consideration to any modifications which may be proposed. The remaining features of the bill, which define the functions of the Bureau, will be submitted hereafter. All communications addressed to the Secretary of the Committee, Dr. J. H. Girdner, will be duly considered.

Joseph D. Bryant, *Chairman.*
Richard H. Derby.
Edward G. Janeway.
T. Gaillard Thomas.
David Webster.
Stephen Smith.
J. H. Girdner, *Secretary.*

A Bill to establish within the Treasury Department a Bureau of Public Health.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

Section 1. That for the purposes of this Act the States and Territories of the United States be and are hereby grouped into districts, to be known as "The Sanitary Districts of the United States," as follows:

The Northern Sanitary District shall include the States of Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, Wisconsin.

The Northeastern Sanitary District shall include the States of Connecticut, Massachusetts, Maine, New Hampshire, New York, Rhode Island, Vermont.

The Northwestern Sanitary District shall include the States of Idaho, Montana, North Dakota, Oregon, Washington, and the Territory of Alaska.

The Eastern Sanitary District shall include the States of Delaware, Maryland, New Jersey, Pennsylvania, Virginia, West Virginia, and the District of Columbia.

The Western Sanitary District shall include the States of California, Nevada, Utah, and the Territory of Arizona.

The Southern Sanitary District shall include the States of Arkansas, Alabama, Kentucky, Louisiana, Missouri, Mississippi, Tennessee.

The Southeastern Sanitary District shall include the States of Florida, Georgia, North Carolina, South Carolina.

The Southwestern Sanitary District shall include the State of Texas and the Territories of Indian Territory, New Mexico, Oklahoma.

The Central Sanitary District shall include the States of Colorado, Kansas, Nebraska, South Dakota, Wyoming.

Sec. 2. That there shall be established in the Treasury Department, under the direction and supervision of the Secretary thereof, a Bureau of Public Health, to consist of a Commission of fifteen, of whom eleven shall be appointed by the President, by and with the advice and consent of the Senate, as follows, viz.: One Medical Commissioner from each of the "Sanitary Districts of the United States," provided in section one of this Act, and two commissioners at large; the compensation of the appointed commissioners, when actually engaged in the performance of their duties under this Act, shall be ten dollars per diem and reasonable expenses. The other four members of the commission shall be the Surgeon-General of the Army, the Surgeon-General of the Navy, the Supervising Surgeon-General of the Marine Hospital Service, and an officer, learned in the law, detailed by the Attorney-General from the Department of Justice; these four members shall receive no compensation.

Sec. 3. That the members of the Commission shall meet at such time and place as may be designated by the Secretary of the Treasury, and organize by the election, from their own number, of a President who shall be one of the members at large, and who shall receive five dollars per diem, in addition to the ten dollars per diem provided in the last section, when actually engaged in the performance of his duties under this Act. The Commission may appoint a Secretary, not one of its number, and fix his salary at a sum not exceeding three thousand dollars annually. The Commission shall thereafter meet annually, at Washington, on the first Tuesday of October, and at such other times and places as the President of the Commission, with the approval of the Secretary of the Treasury, shall designate.

Sec. 4. That there shall be an Executive Committee of the Commission, consisting of its President, the Surgeon-General of the Army, the Surgeon-General of the Navy, and the Supervising Surgeon-General of the Marine Hospital Service and the officer detailed by the Attorney-General. The Commission shall from time to time prescribe the duties of the Executive Committee, and may make all needful rules and regulations for its own control and for the guidance and discipline of all its officers and employees, and shall establish all rules and regulations for the government of national sanitation in all of its foreign and interstate relations, and special departments in the enforcement of the provisions of this Act.

Sec. 5. That when, in the opinion of the President of the Commission the interests of the public health would be promoted by a conference of the Commission with the State Boards of Health of the Several States, or of any sanitary district or districts, he is hereby authorized to invite, with the approval of the Secretary of the Treasury, said State Boards of Health, or such number thereof as he may designate, each to delegate one of its members to meet the Commission in conference at such time and place as he may appoint; the President of the Commission shall be the President, and the Secretary of the Commission shall be the Secretary, of any such conference; the delegate in attendance upon the conference from each State Board of Health shall be entitled to receive reasonable compensation for expenses for a session not exceeding three days, to be paid on vouchers provided by the Secretary of the Treasury.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending July 8, 1893.

	Cases.	Deaths.
Typhus fever	3	0
Typhoid fever	11	4
Scarlet fever	81	15
Cerebro-spinal meningitis	9	20
Measles	173	16
Diphtheria	130	45
Small-pox	5	0
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

Honors to a Physician and Journalist.—*The Lancet* says: "All that is most estimable in Parisian society assembled last Sunday in the Rue Lutèce to do honor to a great, though tardily appreciated, Frenchman — Théophraste Renaudot, founder of the Assistance Publique à Domicile, and—through his *Gazette* for procuring work for the unemployed—the father of journalistic enterprise in France. The commemorative movement which culminated in last Sunday's ceremony was initiated by Dr. Gilles de la Tourette, whose biography of Renaudot has assumed the place of a French classic, while the president of the committee organized *ad hoc* was the distinguished publicist, M. Jules Claretie. The monument itself—a life-like statue of the philanthropic physician in sitting posture in the act of giving ear to some poor applicant for work or medical assistance—is a *chef d'œuvre* of the sculptor Boucher, and on its being unveiled before the vast and brilliant assemblage, seemed, in the very suddenness of the process, to typify the new light that had dawned on the people of Paris, not only as to the merits, but as to the very existence of one of their greatest benefactors. The details of the monument, especially in the inscriptions engraved on the sides of the pedestal, tell the story of the man whose name and date of birth and death are all that are set forth on its front: "Théophraste Renaudot, 1586–1653." Dr. Gilles de la Tourette, in consideration of his exertions in preparing for the successful commemoration of Dr. Renaudot, has received from M. Dupuy, the French Premier, the insignia of the Legion of Honor.

Chicago's Ship Canal.—Dr. N. S. Davis, Jr., in a paper on "The Influence of the Ship Canal now being constructed by the Trustees of the Chicago Sanitary District on the Sanitary Conditions of Chicago and the State of Illinois," said that the canal would not decrease mortality one per cent. The sanitary condition of a city depends upon the thoroughness of soil drainage, proper disposal of sewage, purity, and abundance of water, and the habits of the population. The completion of the ship canal will in no way lower the level of the water in the river or the lake. Soil drainage will not be affected. It makes no difference whether the current moves toward the lake or toward Joliet, provided it moves to the same level. Chicago rests on a bed of blue clay impervious to water, covered with a thin layer of sand, in wards First, Second, Third, Fourth,

Twenty-first, Twenty-second, Twenty-fourth, Twenty-fifth, and Thirty-second, and not so covered in wards Fifth, Sixth, Seventh, Eighth, Ninth, Tenth, Fifteenth, Sixteenth, Seventeenth, Eighteenth, Nineteenth, Twentieth, Twenty-third, and Twenty-seventh. The mortality in the latter series of wards is thirty per cent. in excess of that in the former. The thin layer of sand admits of soil drainage, the blue clay does not. The new ship canal can in no way influence the two districts mentioned so long as the height of sewers over the surface of the water remains the same. The theory that running water purifies has been exploded by experiments in London and Paris.

A New Opening for Medical Men.—At cattle shows and other exhibits of live stock it goes without saying that experts in their respective departments must be retained for judging the animals, and in a somewhat similar manner, says the *Medical Press*, the service of a number of medical men were requisitioned for the purpose of judging the "quality" of the exhibits in a baby show which was recently organized in Melbourne. Everything progressed smoothly in this direction up to a certain point, but trouble began when it was found that nothing had been specified by the contracting parties respecting the remuneration which the judges were to receive. The management, it would appear, thought that the fact of being associated with the exhibition was a sufficient recompense for their medical judges; the latter, however, thought otherwise. The result has been a deadlock. The medical judges struck, and refused to give certain required certificates pending the payment of their fees, which, though not promised, were none the less expected. Of course, little hitches of this kind are to be expected in the inception of every movement and we see no ground for discouragement in this incident. The possibilities of the scheme are immense. The Pediatric Section of the coming Rome Congress might set aside a day for the discussion of "points" on babies, and for the establishment of an international standard of excellence. This would relieve the judges in future contests of any charge of partiality or unfairness which might be brought by disappointed and wrathful mothers. Then, with an inflexible fee-table, all difficulties would be removed and a new and lucrative specialty would have been successfully established.

Erroneous Ideas on Ptomaines.—Considerable misconception—not to say fundamental ignorance—is prevalent on the subject of ptomaines. This may clearly be seen from letters and articles which have appeared in the press since the recent sardine poisoning case, and also from statements made by medical men under conditions calculated to lend authority to their utterances. A case recently tried in a northern town and an inquest held only a few miles from the same town, have brought out assertions regarding ptomaines which are almost as erroneous as the announcement in a popular weekly review that "ptomaines are bacteria." As for obvious reasons the erroneous statements made in connection with this subject are extremely dangerous, since they may lure the public into a feeling of safety or comfortable responsibility, it is desirable to point out some of the commoner and, at the same time more dangerous, misconceptions in regard to these poisons. We hear it stated sometimes that all ptomaines are destroyed by such an amount of heat as is employed in the ordinary process of cooking. This might be so, if it were the case that ptomaines were bacteria, but if it were so, cases of food poisoning would be unheard of. Anyone acquainted with Brieger's work and the chemistry of these toxines knows how stable and resistant against heat almost all, and especially the more important, ptomaines are; and that, therefore, there can be no safety in boiling so far as the destruction of these bodies is concerned. Moreover, in the separation of many of these substances heat is constantly employed without the slightest effect on their toxic properties. Analogous observations are almost daily made during the preparation of the chemical products from pure cultures of bacteria, where heat is constantly used to destroy the micro-organisms. If there be death in the pot, generally speaking no amount of boiling will prevent it. Another statement which invites unqualified dissent is that by boiling the poison will be distilled out and so much diluted by the water used as to become innocuous. Most ptomaines —there are exceptions—are very soluble in water, but it is absurd to assume that if hidden in the centre of a piece of meat they would diffuse through the tissues and be dissolved and diluted. Lastly, the fact that of several people who have partaken of a tainted article of food only one has suffered has been used as an argument against the toxic nature of such food in any particular case. Can anything be more erroneous? The poison may be extremely localized in a particular piece of meat, the rest being free from it; and when we have to deal with a number of fish packed in the same tin, some only may be tainted, as was well shown in the case investigated by Dr. Stevenson, as here, moreover, the boiling oil in which the sardines are placed had not destroyed the lethal substance. The prevention of food poisoning is a problem of extreme difficulty. In the meantime, however, we must remain fully alive to all the results of accurate chemical and physiological observations and not lull ourselves into a feeeling of safety while we may be face to face with death, all the more deplorable as it is unforeseen, accidental, and fortunately rare.—*British Medical Journal.*

Fellows of the College of Physicians in England are debarred from suing in courts of law to recover fees for services rendered. But curiously enough, the Fellows of the College of Surgeons suffer from no such interference with their rights.

A Duel of Physicians.—Dr. Ward, a physician to the Mizon mission, and a certain Dr. Méry, had a duel not long ago, the results of which were more serious than those of most French duels, Dr. Ward having actually been wounded. The injury was not very grave, however, and both parties are now happy and their honor is all right.

To Get Rid of the Odor of Iodoform.—Dr. W. Washburn, of this city, writes *à propos* of a recent item on the deodorizing of iodoform: "In the *Medical Summary* for June, 1893, an article by myself gives an easier and more convenient method. It is there stated that both ether and chloroform are solvents of iodoform, and will remove every trace of it and its odor if the hands are washed with a trifle after washing with soap and water. The hands have a peculiarly clean feeling after using chloroform, dry instantly, and require no further washing. As nearly every physician carries ether or chloroform in his satchel, and as turpentine would be an additional burden, there is this also in favor of these drugs, they are always at hand. When clothing has been saturated with iodoform the proper thing is to first apply chloroform to the spot and rub it in, then wash with castile soap and water, and finally apply chloroform—or ether will do as well if chloroform is not at hand. Any seams coming within the space to be cleaned will require careful attention, just as the nails will if the hands are to be deodorized. The proper way for the nails is to dip a bit of soft wood (a match whittled flat is handy and efficient) in chloroform and with this clean under the nails. I have derived great comfort from applying this method in daily practice."

Cycling.—Dr. A. D. Rockwell says that cycling, like all other methods combining healthful exercise with pleasure, can be abused, but taking it all in all he regards the bicycle as a most beneficent invention. He has seen great benefit to mind and body come from its judicious use.

In the Good Old Time.—Willis P. King, the funny doctor of the Missouri Valley, says when he was a boy there were three things known by their odor, viz.: a billy goat, a skunk, and a doctor.

Prophylaxis and the Kitchen.—Medical science seems to be encroaching on culinary art, as the following advertisement in a leading daily shows: "Man Cook. In hotel or private family; also has made a soup preventive for all contagious diseases; can furnish best references. Chef, Waverley Place, basement." There ought to be a big demand for this soup during the summer.

Cancroin.—In one of my former letters I mentioned the experiments which Professor Adamkiewicz undertook to establish the pathology and rational treatment of cancer, and the opposition which his first fragmentary communications encountered. He has now put forth a complete survey of his four years' laborious researches in this direction, and the opportunity is now given of thoroughly testing his theories. As the subject is still one of the most obscure as well as the most important, his publication will certainly be received with interest by all. He starts from the consideration of cancer as an infectious tumor, and his investigations have led to the discovery of the compound he calls cancroin, which he describes as phenol-vinyl-citronate, and which appears to be a toxine or ptomaine. This body is now obtainable for therapeutic purposes from Merck, of Darmstadt, and seems from the histories published to have a useful influence on the disorder. Let us hope that time will confirm the correctness of the author's observations.—Berlin Correspondent *Occidental Medical Times.*

Vinca Minor for Diphtheria.—Some excitement was aroused a little while ago at Munich by the remarkable success achieved by an unprofessional lady doctor, the widow of a chemist, in the treatment of diphtheria. The daily papers were full of her praise, and even physicians are reported to have allowed that a great number of patients had really recovered by the use of her medicine. In consequence, the government had taken steps to purchase her nostrum, which she had kept a profound secret, but as she demanded no less than one hundred thousand marks for the communication an understanding had been delayed. Luckily a physician of the town, Dr. Krüche, managed to obtain a sample of the preparation, which on examination was found to consist of a decoction of a common herb, vinca minor, so that fortunately the public purse has been protected from an expenditure which would naturally have eventually proved a grand disappointment. Perhaps the homœopaths will make a trial with it, for their Pharmacopœia contains a tincture of the herb, with a notice to the effect of its having proved useful in sore throat and colds.—*Occidental Medical Times.*

The Status of Hysterectomy in New York.—At a meeting of the Post-Graduate Clinical Society, Dr. H. T. Hanks said concerning the subject of cancer of the uterus: "Cancer of the uterus is receiving much attention to day, and we have arrived at a time when the operation of hysterectomy can be performed for its relief, with a very small percentage of death resulting. There are a number of men in this city who are thoroughly skilled in this field of surgery; at this moment the names of at least ten men occur to me, members of the New York Academy of Medicine, who I believe can do a hysterectomy as well as Martin. It is a common operation. I saw Dr. Kelly, of Baltimore, do two hysterectomies and one hysterotomy in one day. Several of us have done this operation twice in a day. It is a great satisfaction to know that we are doing this work as well as it can be done in England, Germany, or France. Of course there are many men throughout the country who do the operation very poorly. They take a course at one of the post-graduate schools, see a few operations at Bellevue, Roosevelt, or the Woman's Hospital, and then go home and try their hand at it. I know how difficult I found my first vaginal hysterectomy, and how easy it seems now. I distinctly remember how hard it was for me to do my first supra-pubic hysterectomy. As our experience with these cases grows, the operation becomes easier. If the specialist sees these cases early enough, the operation can be safely done. Following vaginal hysterectomy, there should not be over two per cent. mortality, nor over four per cent. following the supra-pubic operation."

The Fruits of Sanitation.—Considerable improvement in the public health has followed the hygienic awakening of Italy, as seen in a report by Dr. Panizza, which has recently been issued by the government. While the general death-rate for the whole kingdom was 28 per mille in 1887, in 1888 it had fallen to 27.5, and in 1889 to 25.6. In spite of the ravages of influenza in the two following years, the death-rate only rose to 26.4 in 1890 and 27.2 in 1891. The statistics of infectious disease show a diminution in the five years 1887 to 1891 equal to 43.17 per cent. Taking particular diseases, we find that while small-pox caused 16,249 deaths in 1887, it claimed only 2,915 victims in 1891. For measles the corresponding figures were 19,545 deaths in 1891, as against 23,768 in 1887; for scarlet fever 7,254, against 14,631; for diphtheria 11,691, against 24,637: for typhoid fever 18,938, against 27,273; and for puerperal fever 1,642, against 2,504, being a total of 61,985 deaths from infectious diseases in 1891, against 109,062 in 1887. These gratifying results, which may be called the first fruits of the new sanitary law, may be accepted as of excellent augury for the future.

Doctors and to Spare.—It is stated in the *Times* that Paris attracts so many doctors that some go hungry. Complaints of the policy of centralization that concentrates in the capital all the powers of government and nearly all cultivation of the arts and sciences are constantly coming from the provinces. To this policy Paris owes its absolute supremacy over the rest of France, and to it is due the fact that in every political crisis the question is not, "What will France do?" but, "What will Paris do?" This, of course, is a most proud and comfortable position—for the Parisians—but, as in the case of other forms of glory, once in a while the discovery is made that certain disadvantages and hardships go along with it. Among the severest sufferers from the centralizing instinct, it seems, are the doctors. At the last annual meeting of the Association des Médecins de la Seine, which about corresponds to an American county medical society, it was reported that a constantly increasing number of doctors was each year forced to apply for aid from the treasury of the organization. This, naturally enough, was regarded as a lamentable, even humiliating, revelation, and the statistics which explain the increase of poverty among the medical profession of Paris have attracted much attention. It is doubtful, so attractive is life in the capital to a man of science, and so great are the rewards it offers a chosen few, whether the obvious lesson to be drawn from these figures will be applied to themselves by many ambitious provincials, but with the hope that they might have that effect the society has made them public. It seems that, while the Department of the Seine with which Paris is coextensive, contains not quite a tenth of the total proportion of France, its inhabitants have to support a sixth of all the doctors in the country; in other terms, there is one doctor to every 1,100 Parisians, and in this calculation no account is made either of the unregistered physicians, who, though banned by the law, are numerous, nor of 1,787 of those useful persons whom the French call *sage femmes*, many of whom exercise, especially among the poor, the duties of general practitioners. In 1891, France had 12,324 doctors, and Paris 2,419, or a fifth, showing that the situation, bad enough then, is growing worse. So, too, does the fact that from 1886 to 1891 the total number of doctors in France has increased by 324 and in Paris by 231; in other words, the Department of the Seine has absorbed three-fourths of the increase. Such being the circumstances, it is not difficult to see why many young and unknown doctors, and not a few who are old and no less unknown, should find the struggle for a livelihood too difficult to carry on without assistance from their more fortunate brothers.

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Original Articles.

INTERNAL MASSAGE IN DISEASES OF THE NOSE AND THROAT.[1]

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The great triumphs which the galvano-cautery has accomplished in the last few years, due greatly to the reasonable price combined with the practicability of the galvano-caustic apparatus, have increased the practice of "burning of the nose" to a degree that could hardly be foreseen a few years ago. Owing to the number of cheap batteries in the market, scarcely a physician can be found in New York who does not use this means with more or less judgment, often burning away all and anything that it is possible to cauterize. Whether or not this is detrimental to the patient will not be considered to-night. Nevertheless, experienced laryngologists frequently resort to the galvano-caustic point as the best means for removing certain anomalies, especially of a hypertrophic nature, in a quick and effective manner. But in the last few years it has been noticed that through repeated cauterization a cicatricial condition of the mucous membrane occurs, which often impedes its physiological function. However, as the galvano-cautery is the least injurious of all astringents, we have hitherto been obliged to accept it as the last resort.

For other conditions not hypertrophic in nature, the spray, with all its complicated modifications, has been used with preference more often here in the United States than in Germany and elsewhere. Although happy results in some exceptional cases are undeniable, as a whole it must be admitted that deleterious consequences must follow the use of so-called astringent and tonic sprays upon the delicate mucous membrane of the nose, especially when repeatedly used for a long time. Is it not well known how susceptible to irritation the mucous membrane of the nose is? And further, it is known that even distilled water injected into the nose causes irritation. The physiological salt solution alone, when it has the temperature equal to that of the interior of the nose, is harmless.

A treatment to do away, to a large extent, with the galvano-cautery and entirely substitute the spray, has been anxiously awaited by many laryngologists. This treatment has been found. It is the direct massage of the mucous membrane.

Michael Braun,[2] of Triest, was the first who tried to interest a larger circle in this treatment at the Berlin Congress. Soon afterward I began experimenting with it; but I was induced to work systematically in this field by the enthusiastic monograph of Laker.[3] And though at times, while reading his book, I felt that the author painted this new treatment in too brilliant colors, still I could not help thinking that, in spite of the severest criticisms, there was sufficient good remaining to warrant a trial of this therapy. Personally I should like to state that I have no reason to regret my own experiments in this direction.

Before we consider the application of this treatment we must ask, What is the physiological effect of massage? The principal office it fulfils is to regulate the local circulation of the blood. Through the experiments of Kronecker and Stirling it has been proved that massage acts by thoroughly perfusing and filtrating the tissues, which not only furnishes new building material, but removes very quickly the asphyctic and obsolete secretions. This latter statement is explained by the fact that massage affects the lymph circulation also, because not only the flow of the lymph, but also the reflux of venous blood, is accelerated. So massage indirectly affects the resorption both of normal and pathological fluids.

Massage, therefore, is indicated in cases where it is desirable to stimulate the normal physiological functions of the organism to produce a lively oxidation in the tissues, and to remove hyperæmias and inflammations. Furthermore, it is the best method of promoting resorption of all those pathological products which can be returned to the circulation without detriment to the organism (Alb. Reibmayr).

On the basis of these theoretical deductions, and the results obtained by others, I concluded to begin practical work in massage, but at once an obstacle presented itself—the method of applying this new treatment. Michael Braun's way of applying internal massage is as follows: He takes a copper probe, twenty-one centimetres long, as one holds the pen, in the right hand, bending the end according to the part to be treated, and covers the button-end with cotton, which he dips in a twenty per cent. solution of cocaine, in a ten per cent. menthol-vaseline ointment, in a ten per cent. iodide of potassium glycerine, or in sublimate, lanoline, vaseline, or Peruvian balsam. The field of operation is then illuminated, and the mucous membrane rapidly percussed by the vibrating probe. These vibrations are caused by movements of the operator's arm, emanating from his elbow-joint, his wrist being kept stiff and immovable. The probe makes gentle taps in rapid succession, about four hundred to the minute. Braun combines these with the "effleurage," manipulating not alone one spot, but, slowly stroking from this point, he covers the entire field of operation. The probes, naturally, are bent to a different shape for the naso-pharynx, pharynx, and larynx.

While Braun seats himself before his patient, Laker prefers to stand. The latter does not use illumination to carry out, as he calls it, the internal massage of the mucous membrane. His method is as follows: The thumb of the left hand upholds the tip of the patient's nose, while the four other fingers of that hand steady the head. The right hand holds the probe for vibrating, just as Braun advises. The head of the patient rests on a movable head-rest, attached to the operating-chair. Laker believes that after minute examination of the topography of the various internal parts of the nose, and by continuous practice, you gradually gain such a delicacy of touch that you could find your way in the dark with ease.

From a theoretical point of view this working in the dark did not seem to me to be worthy of imitation, and therefore I never tried it.

I. Herzfeld[1] experienced good results in cases of pharyngeal catarrh by brushing the throat with a great

[1] Read before the Section in Laryngology and Rhinology of the New York Academy of Medicine, May 24, 1893.

[2] Verhandlungen des 10. Internat. Med. Congresses, Berlin, 1890, Bd. iv., p. 112.

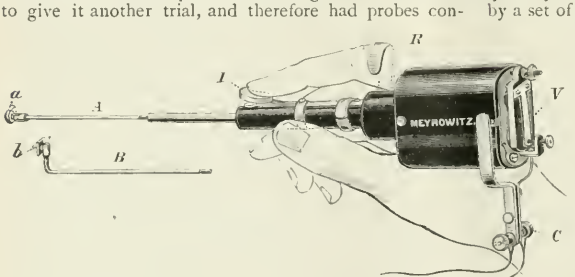
[3] Dr. Carl Laker: DieHeil-Erfolge der inneren Schleimhautmassage. Graz, 1892.

[1] Deutsch. Massage bei Hals- und Nasenkrankheiten, Die Med. Ztg. p. 999, 1890.

variety of drugs, and believed that the mechanical irritation was the effective agent alone, the brushing acting as a massage. A colleague, tells me the late Dr. Elsberg expressed a like opinion, inasmuch as he gave directions to rub the medicine thoroughly into the affected part. Herzfeld had instruments constructed worked by the so-called American dental drill. As these instruments only make rotatory movements, the parts are kneaded instead of vibrated. The instrument is also impractical in form for the nose, as it has the curved shape of all our other laryngeal instruments. H. Lahmann[1] also invented a new instrument for the same purpose, the probe-like end of which instrument is put in motion by a spring. For many reasons it is not useful. I do not know whether these instruments are much used, but I must add that Garnault,[2] whose article up to date is the latest on this theme, speaks of them. Garnault believes that the hand alone should direct the probe, and all other devices should be rejected. But he connects his probe with the electric current, thus applying electricity and massage at one and the same time, a method which many might take exception to. I have not tried it, being opposed to it on theoretical grounds.

In regard to the accomplishment of vibrating with the hand, it is extremely difficult, speaking from my own experience. Gentlemen, try to make three hundred to four hundred vibrations in a minute, and you will soon discover what a task it is to control the intensity and equalize the intervals. How much more difficult it is to increase the vibrations to one to two thousand a minute in like manner! Laker warns one not to be discouraged at lack of success at first efforts, and encourages by the promise of success after a few months of daily practice. How difficult the acquirement, and then how dependent the final result rests upon the exact fulfilment. Garnault gives a correct description, saying: "Il est absolument nécessaire que les vibrations soient extrêmement rapides, qu'elles soient régulières et de même intensité. Ces trois conditions indispensables sont en même temps inséparables. S'il n'en était pas ainsi, on déchirerait la muqueuse, et l'on augmenterait l'inflammation, que l'on prétend calmer."

Therefore, without exact vibration more harm is done than good, and to carry it out correctly means months of daily practice. These are disadvantages to be carefully considered. And these are the causes which led me, notwithstanding all objections made beforehand, to utilize electricity in preference to the muscular action of the arm as a motive power for massage. But I wanted to give it another trial, and therefore had probes constructed after the description of Braun and Laker, but I made very slow progress. Feeling uncertain whether my copy of the probe was exact, I sent to Dr. Laker asking him to forward me a complete set of his probes, and he kindly acquiesced. But my proficiency in the use of these new probes being very slow, I again returned to my original idea, namely, of using electricity as a motive power. I will not tire you with the long, wearisome process, and the numerous discouragements I had to contend with. You all know the difficulties encountered in having a new instrument made. One point, however, deserves mentioning. I had determined from the start not to use the dental drill, as this appliance has for years been eliminated from our laryngological armamentarium. Dr. Boedecker, a dentist of this city, drew my attention to an appliance now greatly used in dentistry, known as Webb's electric mallet. It drives the filling firmly into the cavity of the tooth. To accomplish this, the anterior portion of the instrument is stationary, while the rear end makes the strokes. As elegant and finished as this apparatus is, it would not answer our purpose, as it does not give a direct concussion of the mucous membrane, but one of indirect contact. Naturally, the form of the anterior portion had to be changed for our work. And now I went to work to construct a hammer driven by electro-magnetism, whose strokes would be direct. I gave detailed instructions to a number of instrument-makers; some could not and others would not attempt it. Mr. Charles Spiro, a lawyer and friend of mine, in his leisure hours made a model, for which I am indebted to him. Then E. B. Meyrowitz, of this city, after several attempts, made the electric vibrator, in its completeness, after this model, as you now see it. The mechanism is, in short, as follows: Two magnets occupy the interior of the box. Around these magnets coiled wire runs in manifold windings. Between these two magnets a rod is placed, destined to move backward and forward; at its rear end an iron plate is fastened, and to this is attached a movable metal plate. To the front end of the rod is screwed a detachable part, which I call the probe, *A*, the button of which, *a*, is movable. The index-finger slips into a holder, *R*, which is attached to the neck of the instrument, the box resting between the thumb and the index-finger of the operator. Two little screws at the lower part of the box are points of attachment for the electric wires. On the neck is placed a metal spring, which holds the ivory button *I*. When this is pressed upon by the tip of the index-finger, the current is closed and the iron plate is drawn forward by the magnet, which at the same moment has become electro-magnetic, and, as a matter of course, the rod holding the probe is drawn forward also. As soon as the iron plate has reached its foremost point, the contact is interrupted directly before the screw, and the iron plate falls in its original place, driven by spring power. The next instant the current closes again, and the mechanism repeats itself over and over. The quantity and quality of the vibrations can be regulated by a set of screws attached to the rear of the box. I had the tone produced by the oscillations of my instrument tested by a learned musician, to find out the number of vibrations it makes to the minute. Mr. Sam Franko asserts that the tone corresponds to the deep *C* and to the deepest tone of the viola, making 132 oscillations to the second, or 7,920 to the minute, which is considerably more than is possible to produce with the hand.



To use this instrument neither practice nor dexterity is necessary. Any person accustomed to use instruments can operate it at the first trial.

I generally illuminate the parts I am vibrating, and agree with M. Braun, inasmuch as I combine massage with effleurage. To vibrate the nose, I dilate the nostrils with a speculum and use probe *A*. When I intend to treat the septum, or parts lying sidewards, I turn the button *a* toward the right or the left. But if the patient is directed to turn his head to one side instead, this is often unnecessary. To massage the oro-pharynx I also use probe *A*, with straightened end. For the retropharynx I apply probe *B*, placing its buttoned end (*b*) either straight or upward, as shown in the Figure. When I place the probe not at right angles to the part to be massaged, but at an acute angle, or parallel to it, the instrument does not tap, but rubs the part.

[1] Die innere Nasenmassage, Allgem. Med. Central Ztg., 1892, p. 774.

[2] Le Massage vibratoire et électrique des muqueuses du nez, du pharynx et du larynx, La Semaine medicale, 1892, p. 354.

I vibrate from ten seconds upward. At the beginning, when the patients are not accustomed to the treatment, I do not use the probe longer than about five seconds, lengthening this time each visit. I endeavor to manipulate the entire surface of the nose or throat, or both, commencing with the pharynx, moving slowly downward and upward the posterior wall of it, then from side to side. Then the retropharynx is treated in like manner. I then touch in the nose those parts directly in front of me, *i.e.*, often hypertrophies of the middle and lower turbinated body, then come the parts lying sideways, *i.e.*, the septum, alæ nasi, and the other turbinated bodies. To oppose all suggestions that the drugs used in connection with vibration were the effective agents, I have from the start applied massage preceded by an application of cocaine only. A five per cent. solution was generally sufficient; in but a few instances I resorted to a ten per cent. solution. This is applied, before I massage, with a small bit of cotton. While lesions might occur and bleeding take place more easily by my instrument than by the ordinary probe worked by the hand, yet all this can be prevented by illuminating the parts and carefully moving the probe from spot to spot. If attention is paid to these details, it will be unnecessary to cover the buttoned probe end of the instrument with cotton, and bleeding will be less frequent than from an ordinary probe. Each time before I use the probe I wash it with hot water, and after using it I lay it in a ten per cent. carbolic acid solution, or when boiling water is convenient, I prefer that. Stronger disinfection I consider unnecessary, for the simple reason that we do not thoroughly disinfect other instruments, as, for instance, the laryngeal mirror, without risking infection. However, it is advisable, in cases having a specific origin, to have a separate probe.

As motor power I use Ford's storage battery, three cells of which are sufficient to drive the apparatus.

After overcoming the chief obstacle by constructing an electric vibrator, I could more easily commence work, and now comes the question: What results can we obtain by such vibration? After an experience of almost two years, I at once declare that I am not as optimistic as Laker and others, yet at the same time I cannot condemn the whole matter, as does Chiari, who regards it as child's play. It is but natural that such enthusiasm as Braun and Laker felt over the success of this newly found method could not be permanent, but so much good remains that, for the present, we are forced to give it our earnest attention. And when Chiari states that he neither cured nor improved a single case by vibration, it is a peculiar coincidence, to say the least. But he had to bear Laker's reproach when he was told that a patient, after unsuccessful treatment by many eminent specialists, and among these Chiari himself, was entirely cured by Laker with no other remedy than vibrating massage. The patient was a physician. And when Chiari replied that he had met with success by certain treatments when all other methods had failed, he involuntarily concedes massage to be a proper method of treatment. That this one cure of Laker was not exceptional will be proven later by the citation of a number of others.

And now we will consider some of the diseases which I have treated. To begin with acute diseases, I have treated experimentally ten cases of acute coryza. Not alone was the bleeding somewhat stronger than usual, but the result was such as not to promise an improvement over the old method. Such acute troubles are cured by every possible method, and in none of these cases can I positively say the attack was shortened. And when Cramer,[1] in an experience of two cases, speaks in favor of massage in acute catarrh, I should imagine that his remarks are rather premature. Follicular angina and diphtheria I have not treated with massage, as I coincide with Reibmayr (*loc. cit.*), who says: "It is contraindicated in all parasitic and infectious diseases; furthermore, in all inflammations and diseases where the inflammatory product has developed a quality pernicious to the organism."

[1] Deutsche Med. Woch., No. 22, 1890.

One of the most frequent diseases in the field of chronic troubles is chronic hypertrophic rhinitis. Here we find a number of cases which can be successfully treated by massage, I am almost tempted to say, must be. Take the following case as an example:

Miss B. S—— came to me after being treated for four years by many physicians for "catarrh and speaking through the nose." She has a diffuse rhinitis, both nostrils narrow, especially on the left side, where there is a slight deviation of the septum, the lower turbinated bone pressing closely upon it, although not much hypertrophied. It is remarkable that she was not galvano-cauterized, and probably for the reason that she had great fear of it; otherwise the common remedies, especially the spray, were frequently applied, but always with temporary relief only. And what could have been gained by galvano-cautery? Very little. The mucous membrane would have been partially destroyed on one spot without improving the others. And that sprays, powders, and local applications were of no avail, but each time provoked a new irritation in the affected mucous membranes, the young lady experienced to her own sorrow. In this case we required a fundamental change of the whole mucous membrane in all its layers, a regulation of the blood circulation, and a normal function, especially of the turbinated bones, and all this was most wonderfully accomplished by vibrating massage. After the sixth sitting both nostrils were free. But soon after she caught a cold and all the symptoms returned. After ten more sittings the whole mucous membrane looked normal, and has remained so up to the present, *i.e.*, for six months. The left lower turbinated bone does not touch the septum any longer, she speaks distinctly, and her eyes do not water as formerly. Besides, she is not so subject to cold, and when she has one she still breathes freely. I must again emphatically repeat that I used no drug, but massage only. The patient was and is teaching, and for the last eight months has been over-exerting herself preparing her class for an examination.

As a type of another series of cases I cite the following:

Miss Ida W——, aged thirty-two, was sent to me for an obstinate cough, oppression in the chest, difficulty in breathing, etc. After being treated by a number of physicians she grew so melancholy that her brother told me he feared to leave her alone. She considered herself incurable. She has a very broad nose, with an exceptionally straight septum. The turbinated bones are very much hypertrophied, so that the middle ones rest against the septum, while the lower ones almost touch it. Nasal breathing is impossible. In the pharynx there are catarrhal ulcerations on both palatine arches and a general hyperæmia. The lungs are free. The cough was stopped within a week by local applications of astringents to the pharynx, and mild internal remedies. On account of the large hypertrophies in the nose I did not consider this case appropriate for massage, nevertheless I gave it a trial, being determined to give it up shortly if the results were not favorable. After the eighth sitting I noticed the turbinated bones had decreased in size, the patient breathed easier, and felt, since the cough had also subsided, altogether better and in a happier frame of mind. After the twenty-third sitting the nose was, and has since, for four months, remained a perfectly free air-passage. Her turbinated bones are still large, but not larger than is natural in a large and broad nose. The pharynx had to be treated for a longer time, but in the end all subjective and objective symptoms disappeared.

As convincing as this case may appear, some one may not give all credit to the massage treatment, as one may ascribe the swelling of the turbinated bodies to the stagnation of blood caused by the cough. Be it as it may, it teaches one lesson worth learning: not to use the galvano-cautery too readily. For what would have been the consequences had it been used instead of massage?

After the acute state had subsided one would see enlarged turbinated bones, which prevented breathing. Naturally one at once would have cauterized, and again cauterized after the disappearance of a reactionary inflammation, and again and again, till a so-called normal condition was reached. But how often cauterized mucous membranes are rendered incapable of performing their normal function we all know. Therefore after such treatment an organ consisting largely of cicatricial tissue cannot perform its original physiological service, and this case cited would have added one to that number. Instead of that, however, it clearly shows that massage can reduce without disabling an organ so vital as the turbinated bodies, leaving normal conditions for respiration. Yes, more normal than ever before.

This massage treatment is still more feasible when we attempt to treat the entire mucous membrane, whether hyperæmic or generally slightly hypertrophied, than in treating selected affected areas. You are all familiar with such obstinate cases which occupy our attention without any perceptible improvement from treatment, and it is just for this class of cases that I draw your especial attention for internal massage. It accomplishes frequently what no other method can.

The following serves as an illustration:

Miss A. S——, aged nineteen, and very anæmic, was sent to me by her family physician on account of a very obstinate nasal catarrh, which he could not get rid of. The girl had constant colds in the head. The entire mucous membrane was always reddened and somewhat swollen, some secretion being always present. She has been vibrated twelve times, and has been perfectly well for the last three months. As a matter of routine, I vibrated her nose afterward fifteen to eighteen times more, but only to preserve the good results obtained. I see the patient monthly, and know that she is well. In such like cases I have always taken pains to manipulate the whole mucous membrane of the nasal interior, and the results were excellent. That, however, in these forms of catarrh, relapses occur, especially in the beginning of the treatment, I do not wish to deny, and in many a case I had to begin anew after I had reason to believe I had obtained a final result. But this must not mislead one, for if we have had a case so favorably influenced by internal massage we can be assured it will control a relapse in the shortest time.

As types of two other diseases I mention the following two cases:

John L——, a lad, thirteen years of age, born in England, has been treated by three well-known laryngologists in London on account of formation of crusts in the nose. These were usually lying in the right nostril, especially on the ala nasi; on the left side no crusts were to be found. There were no adenoid vegetations present, nor was there an outspoken atrophy of the nasal mucous membrane. The latter was rather in an acute inflammatory condition whenever I saw it. I treated the boy for eight months without a sign of improvement, when I decided to use the massage. After the fifth sitting a slight improvement was already noticeable; after the eleventh sitting no crusts could be seen on the right side, but for the first time quite a good many were to be seen on the left side. Therefore I applied internal massage on both sides. Once a hemorrhage occurred an hour after massaging. This, however, was the only time it occurred, as bleeding generally sets in during the manipulation, if it occurs at all. The boy had frequent relapses, and could be considered cured only after the forty-sixth sitting.

The second case is a Bohemian cigarmaker, with erythema fugax of the nose. Each time we have damp weather his nose is stopped up and the whole right side becomes red and swollen, giving a very ugly appearance and making him a butt of ridicule for his comrades. As dry weather begins all these symptoms disappear. An examination of the nose between the attacks reveals a slightly hypertrophied middle turbinated body on the right side, everything else looking normal externally and internally. It was only after the fourteenth sitting of massage that the symptoms began to disappear, the outer walls not growing red during an attack. After the twentieth sitting the anterior parts of the introitus narium also remained normal. I am convinced that nothing would have been gained in this case by astringents and tonics, as we could have only reduced the size of the middle turbinated body, and this would not have influenced the disease. I could infer this from the fact that after the middle turbinated body became normal in appearance the disease did not as yet cease. It required a fundamental stimulation of the whole mucous membrane to its deepest layers before a cure could be obtained.

However, that we cannot do without the galvano-cautery as some may infer, is evident. When we have a case of polypi, or where there are polypoid hypertrophies attached by a small pedicle to the mucous membrane, where it is probable that the main mass of the mucous membrane is left intact after cauterization, and only a very small portion of cicatricial tissue remains, in such cases we use the expedient galvano-cautery. Where, however, it is to be expected that we shall leave extensive scars through galvano cautery, put it aside and replace it by the slow, but surer, method of internal massage. The correctness of this statement I could verify by manifold proofs. An excellent one is a case treated by a well known laryngologist of Stuttgart, twelve years ago. The patient, now twenty-nine years of age, was sent to me for several throat troubles. His pharynx was marked in many places by numerous extensive scars, covering almost a half of the oro-pharynx. Between these scars lay masses of granulations, some projecting very strongly. The patient had been cauterized in a rational manner for granulations twelve years ago, and since then this was repeated by five different physicians here and in Europe. What would have been his condition had I, through cauterizing or scraping, changed the small remaining part of his mucous membrane into cicatricial tissue? The man's pharynx would have become a useless functioning organ for the rest of his life. My plan was different in that I chose the slower, and in this case a very tedious, method, massage. Subjective improvement followed the fourth sitting, but, objectively, it was not pronounced before the twenty-third and remained permanent after the thirty-sixth sitting. The proceedings which made the granulations disappear were so similar to those of chronic hypertrophic rhinitis that I will not repeat them. But the condition of the other parts of the pharynx in this case, namely, the atrophies, we will discuss at the same time as we do those occurring in the nose and pharynx, for the reason that the changes are similar. It will appear strange that I favor massage for atrophies, after having praised it for some forms of hypertrophic conditions. Chiari says: "The promoters of this new method, on one hand, claim that hypertrophies are decreased, and on the other hand, that the atrophic turbinated bodies are enlarged by the same treatment, just as if the mucous membranes were made to know how to answer satisfactorily to the demands of the vibrator." I allow myself one retort: Try it yourselves, and experience will teach you that nature does appear to understand how to regulate herself. More than once I have seen atrophic turbinated bodies enlarge after a short course of treatment. They grew larger and larger, and in one case, a girl of sixteen, I purposely stimulated the atrophic turbinated bodies to such a growth that, finally, they touched the septum on both sides. (I never repeated this experiment.) I explain this apparent contradiction thus: Massage, by causing a lively oxidation, not only creates a quicker supply of nourishing material to the part, but also a more rapid excretion of products from the part. This also explains the apparently contradictory cure of hypertrophies and atrophies. Through massage the tissue-fluids are driven mechanically into centripetal roads and forced to quicker resorption. That we do not in this instance have to deal with pure fluids, but cell elements and other substances are associated, which through massage are crushed and ground and then can

penetrate as detritus into the open channel, as Dr. v. Mosengeil had observed years ago. In this way it is comprehensible how hypertrophies can be removed. On the other hand, there circulates in the veins and lymph-vessels, during and shortly after massage, a greater quantity of their contents; secondarily, a large flow from the arteries must naturally follow, and more nourishment is then brought to these particular spots. This explains the cure of atrophic conditions. I treated a case which showed clinically the most outspoken picture of pharyngitis sicca. The patient had been suffering for fifteen years from dryness in the throat. I treated her with internal massage for eight weeks, with slight interruptions, without improvement; although she felt better right after each treatment the dry sensation very soon returned. Finally, in the ninth week, slightly reddened spots appeared on the sides, and at once she declared she felt much better. I treated the patient three months more, and finally was able to effect a perfect cure. This case was as clear a proof of the value of our new method as any case can be. The same improvement I could notice in the gentleman formerly treated in Stuttgart. The shining cicatricial places, so numerous in his pharynx, became, during vibrating, hyperæmic, a condition which disappeared naturally soon after. Gradually, however, a certain amount of these hyperæmias remained permanent, so that at last in place of these broad scars only narrow lines were left. As the granulations by this time had also disappeared from his throat, the patient, who by the way never had a specific disease, felt perfectly well.

Now, in which particular manner an atrophic mucous membrane which, according to all our pathological and therapeutical experience, is no more able to perform its function, can be brought back to its normal state, and especially what microscopical changes occur, I do not know. I know only so much, that before treatment I had such a very pronounced atrophic pharyngitis in the above mentioned case that you would expect to find absolutely no glands in the mucous membrane left, and afterward, a mucous membrane not only normal in appearance, but also secreting mucus was the result of the treatment. To the sceptics I should like to make known a word of Dr. Leopold Ewer, who in a recently published article says: "Practice goes over all theory. Look at a case of atrophic mucous membrane, look at it after often not too long a treatment, how it performs its function, and every doubt will be removed." The *Journal of Laryngology* (Editorial, June, 1892), says in this regard: "But the massage treatment of atrophic catarrhs would seem to hold out more favorable hopes than any other form of therapeutics, and this, indeed, is only what we should expect when we consider that such treatment must of necessity tend to restore the physiological integrity of a mucous membrane which has undergone trophic changes."

In the last year I have seen so few cases of ozæna that I have not attempted to use massage in this troublesome disorder. But I should like to mention that Demme has treated, at Professor B. Fränkel's clinic, sixty-four such cases with vibrations. Ten of these he considered cured in a most perfect manner, while among the remaining each and every one was improved.

We come now to the neuroses in the nose, and among these I mention only hay-fever. During the last season I had occasion to treat six patients with it; one lady before the attack and the rest during the same. The first came only eight times for treatment, and in August she had her attack, although not as strong as usual. Of the other five patients, whom I saw during their attack once to twice daily, the duration, without exception, was reduced from fourteen to ten days, while it formerly lasted four to six weeks and sometimes still longer. As an example is the following case: Mrs. M——, a nurse, forty years of age, born in Germany, but for nineteen years a resident in this country. For the last five years she has been subject to hay asthma. Last year it began on August 31st, in such a severe form as never before. At nighttime the water runs from her nose in such quantity that she is unable to sleep. On September 6th, I saw her for the first time and applied massage. During and right after this the discharge from the nose was simply enormous. The eyes also watered extremely. After two hours, however, both ceased somewhat. On the 7th, a second massaging, repeated in the evening. On the 9th, for the first time, she felt better. I treated her on the 9th, 10th, 12th, 14th, 16th, 18th, and 21st, at the end of which she was entirely free from her symptoms.

I have determined this year to treat the patients before the attacks, and to see whether it is not possible to check these entirely.

To come to the end, I have treated altogether a few hundred cases of different diseases with internal massage, but I do not consider it opportune to give you a statistical table of my success and failures. Figures are, if in any place, in therapeutics open to correction. But so much is evident from my experiments, and that you can see from the cases cited, that often in the most obstinate cases we get remarkable success, which must spur us on to further work in this field. Till now I have not used any other drug to massage in these cases, for the simple reason that this has been experimental work. And desiring my experiments to be clear, and without doubt of the efficiency of massage or its superiority to other methods, I had to use it alone without any associating drugs. Now, after having passed the stage of experimenting I shall not hesitate to combine in certain cases massage with other remedies, to see whether we cannot effect a quicker cure.

With the exception of the hay-fever cases, I have seen my patients not more than three times a week, some few four times, and quite a number only twice weekly. I have endeavored to judge of this new method as objectively as possible, and tried to show you its good and reverse sides, and after all this, I have come to the conclusion that internal massage is a remedy which will never again disappear from our therapeutic armament.

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CONCERNING THE SIGNIFICANCE OF PHAGOCYTOSIS.

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My object in the following abstract concerning phagocytosis is to present some recent interpretations of the last part of the theory of Metschnikoff to which the latter still clings, namely, that the destruction of bacteria by leucocytes forms part of the general process of destruction of bacteria in the tissues of animals refractory to certain diseases, and that the destruction of micro-organisms in living tissues is accomplished by the cells of the body and by the cells only.

In 1886 Pfeiffer[1] first proved by systematic experiments, that certain chemical substances attract bacteria, and others repel them, and Baumgarten[2] explained the facts observed by Pfeiffer as having an important bearing on the movements of both cells and microbes within the infected human and animal body. The method of Pfeiffer consisted in placing the chemicals to be experimented on in tiny, very thin glass tubes, sealed at one end, which were submerged in fluids containing the organisms. The latter enter the tubes, if the substances have an attraction for them. For this phenomenon of attraction Pfeiffer invented the name *chemotaxis*. In case organisms were attracted to a substance he gave it the name *positive* chemotaxis; in case they were repelled, *negative* chemotaxis. Some substances which neither attracted nor repelled he called *indifferent* substances.

It is not clearly stated how indifferent substances are to be distinguished from substances of repelling chemotaxis. In both the tubes were free from bacteria.

[1] Centralblatt f. Bact. u. Parasit., ix., 14, 15, 16.
[2] Jahresbericht, iv., 2, p. 358.

It is necessary to refer also to the experiments of Hess.[1] Hess studied the fate of anthrax bacilli injected into the circulation of the frog. Frogs are immune to anthrax, Metschnikoff and his school held that "the bacilli are taken up by the leucocytes of the frog, and there undergo gradual destruction. After huge quantities of anthrax bacilli had been injected into the circulation of the frog, Hess found that very few could be discovered in the blood after three hours and after six hours none at all. On placing a small quantity of a culture of virulent anthrax bacilli, contained between Ziegler's plates, into the tissues of one of the most susceptible animals to anthrax, the rabbit, comparatively very few leucocytes entered the culture. In case an attenuated form of anthrax culture was used in place of the virulent, leucocytes in large quantities entered the space between the plates and surrounded the organisms. It is important to bear these observations of Hess and others in mind, namely, that in case virulent cultures were introduced, few leucocytes entered the space between Ziegler's plates, whereas, when attenuated cultures of anthrax bacilli were used, to which the rabbit is immune, the leucocytes entered the space in large numbers. This observation corresponds to that of Tchistovitch.[2] He found that when rabbits were inoculated with attenuated cultures of the diplococcus Pasteuri in every case there was an increase in the number of leucocytes in the blood. But when virulent cultures of the same organism were inoculated there was a marked reduction in the number of leucocytes, which reduction became more and more apparent toward death.

In one of the last Croonian lectures, delivered by J. Burdon Sanderson before the Royal College of Physicians, he draws attention to the difficulty of supposing that in the spread of traumatic erysipelas the invading myriads of streptococci can be effectually opposed by the leucocytes which follow in their rear. A similar difficulty exists as regards the more specific infections. If phagocytes are to be looked upon as policemen whose business it is to watch over the safety of the organism, they ought to present themselves in force wherever and whenever there is great danger. Now Metschnikoff's own observations, confirmed as well by his supporters as by his opponents, show that this is precisely what does not happen; that is, that although it is perfectly true that leucocytes take part in the local reaction to which the entrance into the organism of many pathogenic microbes give rise, they neither appear at the place nor at the time that they are wanted. (Burdon Sanderson adds, that in this respect they are like policemen.) Indeed, if we compare the reaction which a mitigated culture produces in the subcutaneous tissue of a healthy animal with that which is evoked by a virulent one, we find that the main point of difference is that whereas in the former case, where there is no danger, our policemen assemble in force, they are either entirely absent or appear in scanty numbers where danger is imminent. It is not the aim of this report to give the literature on the subject of the function of leucocytes, nor of their rôle in inflammation, nor of their chemotaxic relations, but simply to indicate valid reasons for believing that Metschnikoff's theory of phagocytosis is not sufficient to explain immunity. E. Klein, M.D., F.R.S., in a lecture at the Royal Institute in February, 1891, made the following remarks: "It must seem very extraordinary that the presence of phagocytes should be really a true explanation of the refractory state of the frog toward anthrax, considering that the bacilli, like other minute particles, when injected into the dorsal lymph-sac, would be absorbed and brought into the circulation in a few minutes, nay seconds, at any rate some hours before the phagocytes have got into the lymph-sac in sufficient numbers to battle with the bacilli." He continues: "It is important to say, 'in sufficient numbers.'" The question of importance for the theory of phagocytosis is obviously one of numbers of leucocytes present. Frogs kept in the aboratory never contain more than a few drops of lymph in the lymph-sac, and the number of lymph-cells, though great in the microscopic specimen, is insignificant, if compared with the enormous numbers of spores and bacilli that can be and have been injected into the lymph-sac of such frogs without producing anthrax."

The point is not whether there are numerous leucocytes present in the lymph-sac—which nobody disputes—nor whether some of these leucocytes contain the bacilli—which, also, nobody disputes: but the question is, whether they are present in sufficient numbers to eat up and destroy the innumerable host of spores and bacilli injected, and whether the limited number of cells containing the bacilli is at all in proportion to the work. Surely it has never been maintained by Metschnikoff and his school that spores and bacilli are not directly absorbed and carried into the circulation, nor that the number of cells containing the bacilli is at any time great, nor that the surplus of the spores and bacilli remain quietly lodged in the lymph-sac till, many hours later, a sufficient number of leucocytes have been attracted to the seat of battle? For instance, the absorption of solid particles of dead matter introduced into the lymph-sac by no means takes place exclusively through the leucocytes. When five minims of a fine suspension of vermilion in salt solution are injected into the dorsal lymph-sac, some of the vermilion granules, a very small part, are taken up by leucocytes, by far the largest part is taken directly into the blood by means of the lymph-stream.

It is reasonable to ask those that hold that anthrax bacilli and spores introduced into the dorsal lymph-sac are destroyed by leucocytes and by these only, what they have to say of Sanarelli's extended observations[1] as to the germicidal action on anthrax bacilli of the cell-free lymph of the frog's dorsal lymph-sac, the lymph devoid of leucocytes, an action which is very constant outside and inside the sac of the frog.

Perhaps you have observed in the literature of this subject that has come to your notice that almost every experimenter speaks of the bacteria attracting the cells and not the cells the bacteria. As will be shown presently, there are many valid reasons for believing that the cells primarily do not migrate to an inflamed area because there are bacteria there, since there can be inflammation and even suppuration without bacteria, and here too the immigration of leucocytes is great and constant, and on the other hand, there are bacteria, as Gabritcheoski has shown in Pasteur's laboratory,[2] which have a marked negative chemotactic action, *i.e.*, repelling leucocytes. Fresh cultures of bacilli of chicken cholera, for example, have a negative chemotactic action on the leucocytes of the rabbit. Nevertheless, it is somewhat difficult to explain why if the cells attract the bacteria, thousands of cells should migrate to the spot where micro-organisms are present, whereas if the bacteria attract the cells the emigration of leucocytes can be readily explained. To answer this question, it must be maintained first of all that in the first place, as Councilman has proven, bacteria are not at all essential to make up an inflammation, and from this it may be gathered that the bacteria are not essential to the migration of leucocytes, as this occurs in every, even sterile, inflammation.

In Welch's experiments of the organization of blood-clots it was stated that one of the first changes that occur is the penetration into the clot of polynuclear leucocytes. The products of disintegration of the physiological elements of the clot seem to attract them, and although many more leucocytes enter the clot when it is infected, this, according to our view, does not occur because there are bacteria in it, but because the latter set up a greater degree of decomposition in the clot, and the increase in chemical products of this tissue disintegration attracts a larger number of leucocytes. But why do the leucocytes really seem to accumulate around and in an inflamed area? For three main reasons: 1. A physical one; 2, a chemo-pathological one; 3. a morphological one. The

[1] Virch. Arch., B. cix., 1887.
[2] Annales de l'Institut Pasteur, July 25, 1891

[1] Centralblatt f. Bact. u. Parasit., ix., 14, 15, 16.
[2] Gabritschcoski: Annales de l'Institut Pasteur, June 25, 1890.

physical reason has been pointed out by Schlarewsky and after him Weigert and Cohnheim. It is briefly this: The rate of the blood-flow being much reduced, the leucocytes by their physical properties stick to the sides of the vessel, the vessel-wall being morbidly altered, its tonus destroyed, they make their exit by means of their inherent active amœboid movements; or, if we wish to credit Cohnheim, by a physical process of filtration or by both.

The second reason to be given for the accumulation of leucocytes in an inflamed area, the chemo pathological one, has been derived from the experiments of Buchner.[1] It is briefly this: That wherever there is necrobiosis in the organism there too the leucocytes migrate. The products of tissue necrosis, whether bacteriological or not, attract them. Buchner has clearly demonstrated that it is not the bacteria themselves that attract leucocytes or repel them, but that it is the chemical constituents of these bacteria. He has extracted from the bodies of certain bacteria, by treatment with dilute solutions of potassium hydroxid, a substance which has powerful positive chemotaxis for leucocytes. Such products (this is important) he has obtained from the necrotic tissues themselves. He has found that the alkali albumins of the products of tissue necrosis exert a powerful positive chemotaxis for leucocytes. The third reason for the accumulation of leucocytes in inflamed areas I have called a morphological one—it is rather a morpho embryological one. All are agreed that whatever the later history of the blood-cells, they arise in the embryonic mesoblast at the same time as the heart and the blood-vessels themselves.

In inflammation we have primarily to deal with changes in the blood-vessels and blood. To consider these wholly separately, or without a perception of their unity, is a mistake that has practical as well as theoretical consequences. There can be no doubt that any crop of blood-cells must bear morphological and histogenetic relations to the preceding one. Now when we remember that the leucocytes of the blood correspond to the orignal undifferentiated embryonic cells of the mesoblast, which alone have made up the entire embryo, and which are preserved as floating organisms with a latent capacity for further development, much light is thrown on their accumulation in inflamed areas or in diseased or necrotic tissues requiring organization.

This is what I wish to bring out as the third explanation of the migration of leucocytes. They are floating, undifferentiated embryonic cells, with a latent capacity for further development. It is justifiable to presume that they are destined to aid in the reconstruction of destroyed tissue and that this may be one of the explanations of their wandering to inflamed areas, and of the attraction the positive chemotaxis that necrotic tissue has for them.

As it is well known that the undifferentiated cells of the embryo are more or less amœboid organisms, hence it is perfectly natural that their descendants should, under suitable circumstances, exhibit the properties of phagocytes under suitable circumstances; but mark you, please, this is not a case of *post hoc ergo propter hoc*, when they take in microbes in case such are present in their surrounding. From what has been said it is evident that the taking in of bacteria by leucocytes is accidental, a secondary part played by them, it is not their true function. And it is a matter of debate whether or not the bacteria force their way into the leucocytes, because the latter offer a more favorable nidus for them and because the surrounding tissue-juices, the serum, are inimical to them.

Klein is correct in saying, in the light of Buchner's recent observations, that just as certain chemical substances of the bacteria attract or repel leucocytes, so also certain chemical substances present in the cells and tissues attract or repel bacteria.

It is not a well-established fact that the spleen is an organ which pre-eminently seems to attract microbes introduced into the subcutaneous tissue, the lungs, or into the blood. In the case of malaria, relapsing fever, typhoid fever, in anthrax, and tuberculosis, is it not the spleen which is the organ "par excellence" which seems to attract and offer the most suitable nidus for the microbes? In the acute exanthemata it is the skin, in hydrophobia it is the central nervous system, and in certain forms of cancer it is the epithelial and endothelial structures. Surely it is permissible to assume that there are present certain chemical substances in these different tissues which act in a positive chemotactic sense on these various microbes, and hence make these tissues the selected nidus for their existence and growth. In the numerous instances of psorospermosis under discussion at the present time it is chiefly the epithelial cells which are mentioned as the tissues attracting especially these micro-organisms. In artificially induced tuberculosis, the tubercle bacilli are not present in the blood, but find in the cells of the spleen, of the lymph-glands, and of the bone-marrow the most attractive localities. And it seems also justifiable to assume—say, for instance, for the lymph-cells of the tonsils, of Peyer's glands, and similar superficially situated lymphatic structures, that the tissue-fluids, being inimical to the existence of bacteria that pass into the tissue from the surface, they (the bacteria) find in the cells some attraction, some chemical substance that suits them, and hence these cells, far from being the enemies of the bacteria, are, on the contrary, their places of refuge, for a time at any rate. This view of Klein's, as expressed in the London *Lancet*, No. x., vol. i., 1892, seems just as feasible as Metschnikoff's, that because these cells contain bacteria, therefore they are the chief and only bacteria destroyers. It is well established that in some acute and chronic infectious diseases the specific bacteria are lodged chiefly in the leucocytes or similar cells in which they grow and which they ultimately destroy. In Koch's mouse septicæmia, fatal in one to three days, the leucocytes of the blood are crowded with the specific bacteria, and by these the leucocytes become destroyed. In bovine tuberculosis and in tuberculosis artificially induced in rabbits and guinea-pigs, leucocytes and similar cells are the principal substances in which the bacilli settle, and in which they grow. In the tubercular form of leprosy the nodules are entirely made up of round cells in which the lepra bacilli grow, and which cells become gradually destroyed by the bacilli. In Koch's Egyptian ophthalmia the pus-cells principally contain the bacilli, and by the growth and multiplication of the latter the cells become gradually destroyed. In gonorrhœa, the gonococci are principally contained within the leucocytes and by their multiplication gradually produce disintegration of the cells. In swine erysipelas the liver capillaries contain numbers of leucocytes in which the specific bacilli are numerously present and which thereby swell up and disintegrate. Do not all these facts prove that in these diseases it is the cells which attract the bacteria? It is these cells in which the bacteria grow and multiply, and it is these cells which ultimately succumb to the bacteria.

The explanation of immunity is not to be sought in hypothetical properties of leucocytes, but in properties of the blood-plasma; for it has been shown that if an animal, susceptible to a particular disease, be first infected with the bacilli causing the disease, and then into such an animal the cell-free serum or blood-plasma of an animal refractory to that disease be injected, the development of the disease in the former animal is stopped or prevented. In other words, it has been proved beyond question that when the cell-free blood-plasma of an animal immune against a certain disease was injected into a non-immune animal suffering from the same disease the development of the disease in the latter is stopped. These assertions are based on the well-known results of the numerous and carefully conducted experiments on anthrax published by Ogata and Tasuhara, and those of Behring and Kitasato on diphtheria and tetanus,[1] and also on the important researches of Tizzoni and Cattani[2]

[1] Berliner klin. Wochenschrift, Nos. 10, 30, and 40, 1890. Also, more recently, in Centralblatt f. Bact. u. Parasit., Bd. x., Nos. 22 and 23.

[1] Deutsche Med. Wochenschr., 1890, No. 49.

[2] Centralblatt f. Bact. u. Parasit., ix., No. 21, and x., Nos. 2 and 3

with regard to tetanus. These last-named observers show that the serum of the blood of dogs made immune against tetanus possesses a powerful antitoxic action against tetanus; moreover, they have quite recently actually succeeded in curing tetanus in the human subject by injection of that tetanus antitoxin obtained from serum.

Finally, I should like to draw your attention to the recent work by Buchner and his pupils, as summarized by Buchner in the *Centralblatt f. Bact. u. Parasit*, vol. x., Nos. 22 and 23, from which it becomes very evident that the destruction of micro-organisms in living tissues is by no means accomplished by the cells of the body, and by the cells only. The experiments of Buchner and his pupils point conclusively in the opposite direction. Buchner says the first and decisive inimical influence on the infective microbes in a refractory animal, and in the living tissues, is due to the chemical action of the tissue-juices; this precedes the taking up of microbes by the leucocytes; this latter phenomenon is entirely dependent on the former, and without the former primary process phagocytosis is impossible.

In connection with the fact that inflammation can be caused in animals, without bacteria, by placing thin glass tubes containing an irritating substance in the subcutaneous tissue, allowing the wound to heal thoroughly under aseptic precautions and then later on crushing the tube by pressure from without, I was led to make a few experiments in the Biological Laboratory of the Johns Hopkins University by causing inflammation in a young dog by the injection with the hypodermic syringe of absolute alcohol, which is declared by all who have worked in this line as being a substance having a marked negative chemotaxis or repellent action on leucocytes. The skin of the dog must be shaven clear of hair, and washed with soap and hot water, absolute alcohol, and solutions of permanganate of potash and bichloride of mercury. Then the syringe, carefully sterilized, is filled with alcohol and introduced under the skin; after the injection is made the point at which the syringe entered is covered with iodoform collodion. I had no opportunity to see my dogs until eighteen hours after the injection, when a prominent lump had formed at the area of injection, very red and painful to the dog; the rectal temperature was 40.5° C. A piece of the inflamed area was excised and sectioned in a freezing microtome, the sections afterward fixed with one per cent. osmic acid in one per cent. chromic acid, stained in picrocarmine, then gradually carried up to one hundred per cent. alcohol and mounted in balsam. The number of leucocytes in such sections is very great; there are no bacteria in them nor are any to be seen anywhere in the sections.

This experiment was undertaken for my own satisfaction, to learn whether inflammations can be caused by substances with a negative chemotaxis, and whether the leucocytes are numerous in them. Indeed, after the experiment was done it occurred to me that it was quite unnecessary, as any substance capable of producing a trauma, a necrobiosis of tissue could *a priori* be presumed to cause inflammation.

Conclusions.—I have tried in this abstract to bring out the facts showing that Metschnikoff's theory of phagocytosis is insufficient to explain immunity, for the following reasons:

1. In Hess's experiments, on injection of anthrax bacilli in the lymph sac of the frog, a large quantity of bacilli and spores must necessarily be carried directly into the blood-streams, and could not possibly be taken up by leucocytes, which are shown not to be present in sufficient numbers to destroy the bacilli and spores.

2. Sanarelli has proven a germicidal action on anthrax bacilli and spores to belong to the cell-free lymph of the dorsal lymph-sac inside and outside the sac.

3. Leucocytes do not accumulate or migrate to inflamed areas because they are attracted by bacteria, since sterile inflammations and inflammations produced aseptically by substances having a negative chemotaxis abound in leucocytes.

4. Certain bacteria even exert a negative chemotaxis, *i.e.*, repelling leucocytes.

5. Mitigated cultures produce a greater immigration of leucocytes than do virulent cultures.

6. Leucocytes seem to migrate to and accumulate in areas of inflammation for three main reasons:

a. A physical reason, as pointed out by Weigert, Schlarewsky, and Cohnheim, which is to this effect—the rate of the circulation being much slowed, and arterial pressure raised, the leucocytes, by their physical properties, stick to the sides of the vessel, the walls of which, being pathologically altered, they gain exit by their own amœboid movements, or, according to Cohnheim, by a physical process of filtration.

b. The second reason, a chemo-pathological one, is derived from the experiments of Buchner, showing that necrobiosis always attracts leucocytes; the products of tissue necrosis, whether bacteriological or not, attract them. Buchner has isolated from the bacteria and from the necrotic tissues chemical products that exert powerful positive chemotaxis.

c. The third reason, a morphological and embryological one, is founded on the histogenetic relations of the leucocytes to the undifferentiated cells of the mesoblast, which alone have made up the entire embryo. The leucocytes are floating embryonic cells with a latent capacity for further development; the positive chemotaxis that destroyed tissue has for them may be partly explained by their function to aid in tissue reconstruction.

7. In the light of recent observations it is correct to assume that just as certain chemical substances in the bacteria attract or repel leucocytes, so also certain chemical substances present in the cells attract and repel bacteria. This view is supported by many examples of certain cells and tissues being loaded with the specific bacteria, in various diseases.

8. This being the case, it is justifiable to assume that the tissue-fluids, being inimical to the existence of bacteria, find in the cells some attraction, some chemical substance which suits them, hence the cells are not the enemies of the bacteria but their places of refuge. In many infectious diseases it has been shown that leucocytes and similar cells are the places where the bacteria grow, and that these cells are ultimately destroyed by them. The cells succumb to the bacteria, not the bacteria to the cells.

9. The explanation of immunity is to be sought in properties of the cell-free blood-plasma. The blood-plasma of animals immune against a certain disease, injected into a non-immune animal suffering from the same disease, arrests the progress of this disease. The blood of dogs made immune against tetanus possesses a powerful antitoxic action against tetanus. Tetanus in human beings has been cured by injection of tetanus antitoxin.

10. Buchner holds that the first and decisive inimical influence on the infective microbes in a refractory animal and in living tissues is due to the chemical action of the tissue-juices; this precedes the taking up of microbes by the leucocytes; this latter phenomenon is dependent on the former, and without the former primary process phagocytosis is impossible.

The Value of the Three "Ifs."—At a meeting of the Funeral Reform Association of England, a letter was read from Lord Playfair, of which the following is an extract: "If the coffin be of a perishable nature, if the soil be dry and porous, if the grave be not too crowded, the dead are resolved into air and into ashes as certainly in three years as they are in a furnace in the course of an hour, and in both cases without injury to the living." *The British Medical Journal* aptly says that a graveyard thus used would be a garden where the dead are resolved naturally, successfully, and inexpensively.

"When I was young we prepared students for life; now we prepare them for examinations," is a bit of truth from Jules Simon.

FRANZENSBAD—THE BOHEMIAN SPA.[1]

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General Observations on European Spas.—On several occasions within the past ten years, but more particularly during a recent prolonged tour, I was able to give considerable time to an examination of the therapeutic methods employed at leading European spas. These methods are often complex and peculiar, and in some instances they savor not a little of charlatanism. Nevertheless, at the better class of springs, physicians of scientific attainments can generally be found, whose methods of treatment are eminently rational, and differ but little from those commonly made use of by practitioners elsewhere. Balneology and hydrology, as understood abroad, have been strangely neglected in our country. It is rather unfortunate that a certain odium of quackery still clings to these legitimate branches of the healing art. This will be removed only if more than a mere sprinkling of reputable physicians can be found to seriously interest themselves in these subjects. It would seem as if general practitioners, even at the present day, could hardly afford to plead complete ignorance of mineral springs on the score of lack of faith in their utility. For sooner or later most well-to-do patients afflicted with chronic ailments will find their way to one or another of the countless resorts now clamoring for public recognition. It is surely better for the physician to direct the steps of the patient, than for the latter to make his own selection on the strength of mere hearsay or alluring advertisements. But intelligent advice is impossible without at least a "working knowledge" of the most important spas and their therapeutic resources. There is no good reason why matters of such practical importance should remain banished from the curriculum of our colleges.

In a general way it may be stated that, those who have taken the trouble to become personally familiar with the subject, are compelled to admit the vast superiority of European spas over those in our own country. Nevertheless, this superiority is by no means due to the astonishing natural advantages possessed by continental resorts. Neither can it be attributed to the peculiar chemical composition of their springs, nor to any mysterious healing virtues residing exclusively in their waters. It is my belief that the more gratifying curative results obtained at foreign spas, are almost entirely due to the strict and systematic methods of treatment pursued there. It has taken centuries of experiment and study to bring these methods to their present degree of development. Abroad, at all the best springs, medical men insist on supervising every—even the most trivial—detail of life. Two iron rules exist. The one ensures the positive enforcement of a suitable régime, and the second brings about the complete submission of the patients' whims to the will of the physician. Thus it happens that even hopelessly stubborn people are known to give up their pet bad habits while at a European spa. Possibly the entirely new order of things, and an exclusive attention to health makes even the most obstinate willing and ready to obey orders. At all events, medical tyranny, otherwise intolerable, is meekly borne at the spa. If we could substitute for the happy-go-lucky American way this painfully precise European system, our own mineral-water stations would soon attain a celebrity unexcelled by foreign resorts. Again, at all reputable continental spas, the doctor plays first fiddle and the hotel-keeper is relegated to his proper place among the drummers. This little peculiarity we might also, with advantage, borrow from our transatlantic cousins.

As to the general question concerning the utility of spas, it is too late in the day to dismiss the subject with a shrug of the shoulders. Yet it may be admitted that, if mineral waters, baths, etc., could be taken at home in the same way in which they are employed at special resorts, equally good results might be looked for. But it is obviously impossible to supply "at home" the necessary environment, and secure that complete devotion to "a cure," which are and always will be obtainable at every properly managed spa, and there only. Invalids will, therefore, continue to take long journeys in order to reach out-of-the-way places, where they may reasonably hope to secure greater relief from suffering than by merely drinking a prescribed number of goblets of imported or artificial mineral water, while still subjected to all ordinary home influences.

In the present communication I intend to give some account of a spa which appears to be much less known in America than in the interests of suffering humanity it deserves to be, namely Franzensbad, in Bohemia. Every physician has heard of Carlsbad, and Marienbad is only a little less famous. But Franzensbad has hitherto received very scant notice at the hands of the profession in our country. For this reason I shall go into somewhat greater detail than would otherwise have seemed necessary.

In Europe the place is universally recognized as belonging to that galaxy of famous Bohemian spas, of which Carlsbad shines as the bright particular star. Personally I am convinced that for quite a number of morbid states a course of treatment at Franzensbad is safer and far more likely to prove beneficial than the indiscriminate drinking of the waters at overcrowded Carlsbad. Without any desire on my part to belittle the striking effects witnessed at the latter place, I may state that I received an impression that Carlsbad is regarded, even by many physicians, too much in the light of a possible panacea for every variety of troublesome chronic disorder. It may be well to remember that the maxim "if it does no good it can do no harm" is decidedly not applicable to Carlsbad. The cure there is too serious a thing to be lightly undertaken.

Satirists and other keen-eyed observers have pointed out that our republican citizens are wont to repair in large numbers only to the aristocratic and fashionable spas. This is true. And I cannot conscientiously recommend Franzensbad to those who are looking merely for the distractions belonging to "high life" at international resorts. Franzensbad is a place for invalids, not for lion hunters and pleasure seekers. On the other hand I had ample opportunity in the six weeks which I spent there, to become convinced that real patients of various classes are more likely to be cured at this dull and quiet Bohemian village that at many of the more fashionable watering places.

Special Features of Franzensbad.—The little town (more properly village) of Franzensbad is situated in a fertile plateau of German Austria, known as the Egerland. It is only a short distance from the ancient and picturesque city of Eger, in the northwest corner of Bohemia. The spa itself is at present quite accessible, being a railroad station, where all local and express trains make a stop. Through tickets are issued from the principal European cities, and the vexations of frontier baggage-examination have been reduced to a minimum by special arrangement with the authorities.

The native population numbers only about two thousand. But from eight to ten thousand visitors annually go there for treatment.

Few Anglo-American Visitors.—Coming as I did from Carlsbad, where every fifth or sixth person one meets speaks English, or at least tries to do so, the infinitesimal proportion of Anglo-Americans at Franzensbad could not fail to present a striking contrast. In addition to the large German and Austrian contingent, Russians, Hungarians, Poles, Spaniards, Italians, and Frenchmen were fairly well represented in the motley assemblage of patients frequenting this spa. But the Britisher and the Yankee, with their wives and their daughters, were conspicuously absent.

Poor Hotels.—It must be allowed that the hotel accommodations provided at Franzensbad are not up to the American idea of comfort and elegance, whereas at Marienbad and Carlsbad, even very fastidious tastes can now be gratified. It is necessary to take this evident

[1] Read before the Manhattan Medical and Surgical Society, May 27, 1893.

drawback into consideration before advising very exacting patients to go to Franzensbad, if one would avoid disappointment. For actual disgust of one's quarters may in great measure neutralize the good results otherwise obtainable at a given watering-place. Evidently the Franzensbaders have not yet learned, like their more enterprising neighbors, to cater to the tastes of luxury-loving Americans. However, I was assured that improvements in this direction were seriously contemplated in the near future, and I trust the assurance may turn out to be more than an idle promise. At the present time most patients rightly prefer to live in lodging-houses, where fairly comfortable quarters are provided. Eatable meals are procurable at the numerous inns and restaurants.

It may be mentioned here that, contrary to current belief, exorbitant charges are not made at Franzensbad. The expense of "a cure" there is fully one-third less than at Carlsbad, the latter place being about the dearest spa in Europe, according to my experience.

An Agreeable Climate.—Franzensbad is fortunate in the possession of a moderated mountain climate which is altogether agreeable during the season, *i.e.*, from May to the end of September. The air is pure, bracing, and refreshing. It is credited with being specially rich in ozone, but I was unable to secure reliable data in substantiation of the latter claim. At any rate, the nights are always cool, even if the mid-day heat has been uncomfortable. It is only fair to regard the excellent climatic conditions as a contributing factor of no mean importance in the surprisingly good results obtained at this spa in most anæmic disorders.

The neat and trim little town lies at an elevation of about fifteen hundred feet above the level of the sea. It is freely exposed to the winds, but the streets are wide and for the most part planted with trees. There are in addition a number of really fine parks, so that there is little annoyance from dust. The nature of the soil is such that moisture quickly disappears, yet the atmosphere is never excessively dry. Although built in an uninteresting plain, richly wooded hills are found at no great distance from the spa; and beyond these there are visible spurs from the Erzgebirge, Fichtelgebirge, Böhmerwald, and other mountain ranges. Still, the striking picturesqueness of Carlsbad and Marienbad will be looked for in vain at Franzensbad.

Satisfactory Sanitary State.—The general healthfulness of Franzensbad is unquestioned. The authorities exercise due vigilance in the suppression of all nuisances, except the indoor cabinet nuisance. Smells from the latter source are permitted to befoul the atmosphere of many hotels and lodging-houses. But the average foreigner (always excepting the hydrophilous Briton) appears to thrive on offensive odors. By ventilating one's bed-rooms, danger from this source may be effectually avoided. The ordinary drinking-water is not above reproach, but as almost everbody takes the mineral waters, not much importance attaches to this point.

It is claimed that the famous ferro sulphated peat-bogs which almost surround the town have potent antiseptic powers. Be this as it may, Drs. Fellner, Klein, and other leading practitioners all agreed in assuring me that epidemics were unknown and contagious maladies very rare in their little town.

Historical Notes.—Unlike Carlsbad, which has been famous for over five centuries, the reputation of Franzensbad is of comparatively recent date; in fact the place has acquired international celebrity only within the present century, although the natives had used the springs as early as 1565. In 1793, by imperial edict of Francis II., the place was called Kaiser-Franzensbad. Only a few springs were known at that period. New ones continued to be found as late as 1879, when the Natalie-quelle was discovered. In the time-honored local chronicles it is related as an extraordinary fact that the earliest attempt to establish a spa at Franzensbad (which has since been chiefly patronized by the weaker sex) was frustrated by bands of angry women. Indeed the opposition of the Amazons became so boisterous and destructive that the military had to be called out to suppress the howling rabble.

The Cure.—In regard to "the cure" at this resort, it is mild, gentle, and reconstructive, thus differing entirely from the violently alterative reduction methods practised at other Bohemian spas.

A course of treatment at Franzensbad consists essentially in drinking the mildly aperient chalybeate waters, in mineral-water and mud baths (or mud poultices), in moderate daily open-air exercise, or a modified rest cure, and in a somewhat restricted though generous dietary, calculated to aid in building up the general health.

As adjuncts to this simple mode of treatment, the usual hydrotherapeutic and electrical measures are employed, massage is given, and special local indications are fulfilled.

So far as my observations extended, there was less extraneous humbuggery than one would expect at a resort so crowded with hysterical women. That profound psychical impressions may and do result from the various manœuvres to which patients are subjected, is of course well understood, and may be part of the cure. But the transcendentalism of faith-cure methods has found no congenial home at Franzensbad.

The Springs.—The twelve springs of Franzensbad are quite similar in chemical composition.[1] They supply waters which are cold, clear, and sparkling. Their temperature varies only between the limits of 50° and 53.5° F. To the taste they are agreeably acidulous or feebly saline. Several of the springs, however, have a slightly styptic, inklike taste, which is not altogether pleasant. As will be seen from the subjoined table, the main ingredients are: 1, iron; 2, sodium sulphate (Glauber's salt); 3, sodium chloride; 4, alkaline carbonates; 5, free carbonic-acid gas.

Analysis of the Franzensbad Springs.*

One thousand grammes of water contain:	Franzensquelle. (Berzelius.)	Salzquelle. (Berzelius.)	Wiesenquelle. (Zembsch.)	Kalter-Sprudel. (Trommsdorff.)	Louisenquelle. (Trommsdorff.)	Neuquelle. (Zembsch.)	Loimannsquelle. (Rochleder.)	Stahlquelle. (Rochleder)	Mineral-Säuerling. (Gintl.)	(Stefaniequelle.) (Gintl.)	(Herculesquelle.) (Gintl.)	Nataliequelle. (Gintl.)
Sulphate of sodium	3.190	2.802	3.340	3.506	2.788	3.048	2.143	1.614	1.420	0.835	0.932	0.907
Sulphate of potassium	....	....	....	....	....	0.009	....	....	0.114	0.036	0.049	0.031
Chloride of sodium	1.202	1.140	1.214	1.120	0.880	1.192	0.797	0.613	0.580	0.328	0.367	0.352
Carbonate of sodium	0.675	0.677	1.169	0.934	0.715	0.744	0.679	0.547	0.525	0.292	0.186	0.251
Carbonate of lithium	0.004	0.003	0.003	....	....	0.005	....	....	....	0.003	0.003	0.010
Carbonate of magnesium	0.037	0.103	0.081	0.002	....	0.067	0.088	0.054	0.044	0.046	0.068	0.061
Carbonate of lime	0.234	0.183	0.178	0.300	0.300	0.211	0.184	0.190	0.077	0.146	0.157	0.140
Carbonate of protoxide of iron	0.030	0.009	0.017	0.026	0.041	0.029	0.053	0.079	0.030	0.039	0.045	0.037
Carbonate of protoxide of manganese	0.004	0.001	0.003	....	....	0.005	....	....	....	0.003	0.004	0.003
Spa acetate of protoxide of iron	....	....	0.006	....	....	....	....	....	....	....	....	....
Phosphate of lime	0.003	0.003	0.003	0.003	....	0.003	....	....	....	....	....	....
Phosphate of aluminium	0.001	....	....	....	....	0.001	....	....	0.017	0.007	0.011	0.003
Silicic acid	0.061	0.064	0.061	0.007	0.028	0.068	0.054	0.083	0.040	0.074	0.079	0.075
Total solid constituents	5.491	4.985	6.075	5.898	4.752	5.382	3.998	3.189	2.847	1.809	1.901	1.880
Total salts of sodium	5.067	4.619	5.723	5.560	4.383	4.984	3.619	2.774	2.529	1.455	1.485	1.520
Carbonic acid (c.c.)	1462	831	1202	1576	1289	1873	999	1528	1135	1509	1272	1296

* The springs were discovered and utilized in the order here followed.

[1] Die Heilmittel von Franzensbad. Herausgegeben vom Vereine der Aerzte in Franzensbad. 1892.

It is customary to arrange these springs into two principal groups, of which the first contains those waters which are credited with being in the main "solvent" and "absorptive" (lösend und resorbirend), whereas in the second group the tonic chalybeate principle predominates. It is unnecessary to enter here into all the refinements of subdivision and classification. These rather fanciful procedures can be safely intrusted to the zeal of local practitioners. It may be mentioned in this connection that while I have no desire to disparage the earnest and honest efforts of "bath-physicians" in general, the outsider can never quite rid himself of the notion that in the matter of specific indications for particular springs they are very apt to overdo things. It may be good business, but it looks like poor science. So, too, it is my belief that their long lists of indications should be scaled down to reasonable proportions. It is impossible not to agree with Dr. More-Madden, who says that "nearly every mineral water that is now referred to, although unquestionably possessing therapeutic virtues, in suitable cases, has been belauded by the local panegyrists by whom remedial properties are assigned to its employment in almost as many and as different classes of disease as could be included in the encyclopedic advertisement of a *fin de siècle* patent medicine company."[1]

Most of the Franzensbad springs are used for drinking purposes. For bathing and douching the Louisen, Loimanns and Stahlquelle are chiefly employed. The various thermal establishments are complete in every detail and are supplied with modern apparatus for hydrotherapy.

The Mineral Water Baths.—It is claimed that the tonic and invigorating effects of these baths are actually due to the specific action of the ferric and other salts contained in them. After repeated personal trials of the various kinds of baths employed, I prefer to believe that the carbonic-acid gas which collects in small bubbles on the skin, producing a decided redness, coupled with a prickling sensation, has much more to do with their efficacy than the presence of numerous salts. To my mind cutaneous stimulation adequately explains the nature of their efficacy.

Two methods of giving the baths are employed. The first is that of Pfriem (called here Louisen, or mineral bath), in which the cold mineral water is allowed to fill the tub, and is then raised to the proper temperature by conducting steam into it. Much gas escapes by this method.

The second is the Schwarz-Reinitz process (called steel bath at Franzensbad). By this method the hot vapor is conducted through coils covered by a sieve-like metal plate, thus giving a double bottom to the tub. This indirect application of heat insures a great richness in carbonic-acid gas. These "Stahlbaeder" are popularly called champagne baths.

The Gas Baths.—At the Polterbrunnen a vast quantity of carbonic-acid gas escapes with a rumbling noise. The gas is collected in a wooden receptacle whence a pipe conducts it into tubs and depressed compartments, in which patients seat themselves without undressing. The head is, of course, made to project above the level of the toxic gas. In various neuroses and in amenorrhœa, but especially in sexual frigidity and impotence, the local practitioners claim surprisingly good results from these gas baths. That they act as potent excitants to the peripheral nerve-endings and may, through reflex channels, affect the central organs, must be freely admitted. But of their alleged beneficial action in diseases dependent on organic lesions, I saw not the slightest evidence.

The Mud Baths.—These peculiar baths constitute the special feature of Franzensbad. To them the place owes its chief éclat. Vast deposits of the peat, or "mineral moor," are found to the west of the town.

These peat-bogs have a depth, in some places, of nearly fifteen feet. Robbed of its saline iron mud, this little Bohemian resort would speedily lose its world-wide reputation. But it is estimated that there is enough to go around for several centuries longer. In fact, some writers maintain that an inexhaustible supply exists, and that there is no danger to local interests from the increasing quantities of peat dug out for exportation.

[1] The Medical Magazine, January, 1893.

At Franzensbad mud-bathing has indisputably reached the climax of development. Now, it may sound like an Irish bull, but it is none the less literally true, that a person who has never taken a mud bath does not know what a mud bath is. I took two.

The general appearance of a tub full of Franzensbad peat, as prepared for a bath, is not exactly inviting. Perhaps the old English description of an ink-stained bread poultice is as apt as any. And yet it is well known that even fastidious and timid women, who are at first utterly repelled by the disgusting sliminess of this substance, generally manage to develop, if not some liking for, at least a tolerance of, this peculiar method of treatment.

With reference to the extraordinary beneficial virtues attributed to bog or peat earth, a few remarks will suffice. After much discussion with the leading physicians of Franzensbad, an examination of the voluminous literature of the subject, and after a limited amount of personal observation, I confess that the good results undoubtedly seen during and after a course of mud baths, while they may be directly due to the power of peat, do not fairly come within the reach of scientific explanation. To my mind the whole subject is still one of empiricism.

> "Some truths are not by reason to be tried,
> But we have sure experience for our guide."

Now, experience has surely shown that Franzensbad mud baths are valuable adjuncts to treatment. And from a practical standpoint such knowledge is amply sufficient to justify their employment. I will not, therefore, weary you with a learned discourse on the various theories which have been advanced to account for their beneficial action.

The Peat.—Franzensbad mineral peat is a dark-brown or even blackish-looking turf, formed, like all similar products, by the slow decomposition of plants in the presence of various salts. The Franzensbad peat is richer in iron than any similar earth known. And the local enthusiasts naturally lay great stress on this circumstance.

Analysis of the Peat.—According to Cartellieri 1,000 parts of disintegrated moor contain the following:

I. Parts Soluble in Water.

	Parts.
Sulphate of potash	0.1958
" of soda	11.4600
" of magnesia	1.2411
" of lime	26.8954
" of alumina	7.9358
Proto-sulphate of iron	97.7803
Proto-sulphate of manganese	0.5693
Sulphuric acid of bisulphates	47.9590
Silicic acid	0.5894
Pit acid	28.1863
Other humates	29.4407
Halhydrate water	0.1859
Total	252.4390

The chief ingredients not soluble in water are silicates, humic acid, iron compounds, and vegetable remains, as shown in the following analysis:

II. Parts Insoluble in Water.

	Parts.
Sulphate of peroxide of iron	1.8463
Bisulphuret of iron	28.4522
Sulphuret of iron	3.5433
Oxide of sodium	7.1348
Magnesia	1.3743
Argillaceous earth	2.8485
Calcareous earth	1.2239
Strontian earth	0.3956
Silicic acid	2.3036
Humic acid	421.0572
Wax like substance	18.4166
Peat-resin	25.4999
Unresolved constituents	79.7352
Vegetable remains	153.7296
Total	1000.0000

Preparation of the Peat.—The peat earth is dug out by machinery during the fall months. It is spread out "to weather," a process which is one of oxidation principally. It is not harvested until the following spring, for use during the summer season. After having been dried and reduced to a crumbly mass, it is finally ready to be mixed with the natural mineral water and steam in immediate preparation for a pulpy bath.

Patients remain in the mud-filled tub for from ten to forty minutes—in exceptional cases even longer—then take a quick cleansing bath, followed by rubbing and complete repose for about one hour.

Efficacy of Mud Baths in Diseases of Women.—The mud baths are reputed to be peculiarly helpful in the various diseases of women. Indeed, Franzensbad has long been known as the ladies' spa *par excellence*. It has occurred to me that the absence of husbands and meddlesome specialists, which insures grateful physiological rest for the female sexual organs, might be as powerful a factor for good as the mysterious virtues said to reside in the local mud. I was certainly struck by the very large proportion of youngish women at this watering-place—women in whom sexual life must have been in its most active stage. Now, take an average ailing womb, and we all know the amount of prodding and jabbing it gets, the cruel stems it is impaled upon, the scrapings, touchings, curettings, packings, injections, and other fixings it has to endure during a course of "active" treatment. Suppose that you let such a multimutilated uterus severely alone for six or eight weeks, build up your patient's constitution by tonic beverages, take her away from the daily cares and frets of her household, and for a holiday occupation let her take an occasional dip in slimy mud, or have a peat poultice put on her abdomen; and you need not marvel at her quick improvement, even if the mud should happen to have fewer saline-ferruginous ingredients than that of Franzensbad.

It must not be inferred from these remarks, however, that the Franzensbad doctors altogether eschew local treatment. On the contrary, the Thure-Brandt system, electricity, and other local measures are employed in all urgent cases.[1] Yet the tendency is toward utmost conservatism consistent with safety.[2] There is no doubt that many an ovary and tube has been snatched from the impending doom of the hungry specimen jar by a timely course at Franzensbad. And the local doctors rarely mention any astonishing triumphs of mutilating surgery. Doubtless, as the laparotomy wave still further recedes, Franzensbad will be more and more appreciated. Hysterical women will then run fewer risks of castration than they do at present.

To remove some of the most important portions of woman's anatomy may yet come to be regarded as an admission of medical defeat rather than the blatant announcement of victory. In those milennial times mud may be held mightier than the blade.

Spa Life.—The general features of life at continental spas have been so often described that it will only be necessary to indicate those peculiarities which seem to belong to the one under consideration.

Everything is done in a quiet, leisurely, even lazy way at Franzensbad. There is no very early rising, no racing pedestrianism, no excessively restricted dietary, no swamping of the stomach with goblet after goblet of hot nastiness, no violent upsetment of every cherished habit of comfortable existence.

Patients here slowly sip one or more small glasses of cold mineral water in the morning hours, and a similar quantity in the early evening. Between drinks they listen to music or talk about their doctors, their husbands, and their babies. Livers, kidneys, and spleens, the very backbone of Carlsbad conversation, are only mentioned in the bills of fare at Franzensbad.

Exercise is much less insisted on than repose. And after the ordeal of a mud bath, repose certainly seems a *conditio sine qua non* of existence. The walks in Franzensbad are level, most of them are well-shaded, and all are airy. Many invalids are rolled about in comfortable chairs in the numerous parks and along the stately promenades. A "kurgemässes" dinner is a very decent and acceptable meal, with only slight restrictions. Everybody takes coffee and rolls in the afternoon. Everybody flocks together for gossip during the two daily concerts. Everybody goes to bed soon after a light supper. And at nine the little town is wrapped in profound slumber. A milder and more gentle cure (always barring the infliction of mud) than the Franzensbad one it would be difficult to devise. And therein lies its applicability to disorders that would surely be made worse by the more vigorous systems in vogue at other spas.

So it happens that young girls and little children form a fair proportion of the sick colony at this spa. Indeed, the doctors all assured me that some of their happiest results were obtained in very youthful persons. It is quite diverting to see little groups of youngsters sipping the waters with the grave and knowing airs copied from their seniors.

Indications.—The old method of distributing favors among the Bohemian spas was based on the color line. It was extremely simple and convenient. Yellow people were sent to Carlsbad, all florid, red, or purplish ones to Marienbad, and the white-faced brigade was marched off to Franzensbad.

Many of the older European physicians doubtless continue to be guided in their selection solely by considerations of complexion. But such force of habit should be discouraged; it looks like routine.

Experience has shown that benefit may reasonably be expected from a course of Franzensbad treatment in the following disorders:[1]

1. All anæmic and hydræmic disorders, such as simple anæmia, chlorosis, oligocythæmia, and even leucæmia.

2. Apart from these essential hæmic disturbances, in all secondary anæmias following loss of blood from whatever cause, or when due to impaired nutrition, or as a sequel of various acute febrile affections, such as influenza, pneumonia, typhoid fever, and diphtheria. Scorbutic, scrofulous, rachitic, and hæmophilic tendencies, and similar constitutional derangements.

3. Certain diseases of the nervous system:
   - *a*. Functional neuroses, such as chorea, neurasthenia, and hysteria. (The local practitioners also claim to have obtained satisfactory results in epilepsy, hypochondriasis, catalepsy, hystero-epilepsy, etc.)
   - *b*. Organic neuroses, such as locomotor ataxia, the various paralyses, poliomyelitis, etc.
   - *c*. Neuralgias, such as sciatica, and tic douloureux.
   - *d*. Graves's disease.

4. Diseases of the sexual apparatus, especially in women. More particularly amenorrhœa, dysmenorrhœa, catarrhal vaginitis, endometritis, perimetritis, and pelvic peritonitis, salpingitis, oöphoritis, and all chronic exudations and inflammatory deposits within the pelvis. (Strong claims are also made in behalf of uterine displacements, the tendency to habitual abortion, sterility, delayed puberty, and sexual frigidity.)

5. Chronic inflammatory affections with effusion, such as pericarditis, pleurisy, and perityphlitic deposits, gouty and rheumatic swellings; also anchyloses, periarticular and muscular nodes, periostitic swellings, thickenings after fractures and dislocations, and the like.

6. Catarrhal affections of the upper air-passages, especially when on an anæmic basis, gastro-intestinal disorders (more particularly when accompanied by constipation and anæmia), blennorrhœal diseases of the organs of generation and their sequelæ, the early stages of chronic Bright's disease, and most lithæmic disturbances.

[1] Fellner: Klinische Beiträge zur Thure-Brandt 'schen Behandlung der weiblichen Sexualorgane. Wien., 1890

[2] Klein: Zur balneologischen Behandlung der chronischen endometritis. Reprint from the Wiener medicinische Presse, 1893.

[1] It is proper to state that the writer has, perhaps somewhat arbitrarily, curtailed the long list of diseases for the relief of which Franzensbad is said to be specially useful. Nevertheless, even as it stands, the list includes disorders for the cure of which other spas enjoy an equally high reputation.

7. Finally, Franzensbad is a good place for so-called after-cures, following the more energetic and depressing measures employed at other spas.

1 712 Madison Avenue.

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MARTIN'S OPERATION ON THE PERINEUM.

By WILLIAM S. CHEESMAN, A.M., M.D.,

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Though an excellent translation of his "Frauenkrankheiten" has been published in America, Martin's operation seems not to have won on this side the water the following it deserves. No one can witness the results obtained by Martin himself without being struck by their excellence. Whoever has watched him operate on case after case, in a single morning, and has had the opportunity accorded to his private students of seeing the ultimate results of his work, will, though he may not follow Martin in all its details, agree that the operation deserves wider fame.

As to steps and technique. Martin's antisepsis is of a very strict sort. The patient has a bath; mons and vulva are shaved, scrubbed with soap and water, and douched with bichloride solutions, the vagina is scrubbed with the fingers and douched. Irrigation by a stream of weak bichloride constantly plays over the denuded surfaces. The hands of operator and assistants receive a searching disinfection. Martin wears a rubber apron covering his very considerable person from neck to feet. Over this douches pour, and are conducted into a receptacle beneath the table. The first step, when endometritis is present, is a curettage of the uterus incomparably thorough and energetic. With his own strong curette, Martin removes, or endeavors to remove, the whole endometrium. The cavity is then irrigated with a five per cent. solution of ferric persulphate.

This procedure at first glance seems rough, and the grating of the steel on the uterine wall is not pleasant to hear. But the curette's edge, though narrow, is not sharp, and when curetting is to be done, let it be done thoroughly.

If laceration or hypertrophy of the cervix exists, an amputation flush with the upper end of the tear, and closely after Schroeder, is now done. This strikes the average American as often a ruthless and needless procedure. And in amputating, as a routine, where closure of a tear fulfils the indication, few, even in Germany, follow Martin. Machenrodt was recently sharply criticised in the Berlin Gynecological Society for claiming this as needful to restore the uterus to its natural size. Doubtless in cases of great hypertrophy and elongation amputation is indicated. In cases of simple cervical laceration conservative operators will merely close the rent.

The next step is an anterior colporrhaphy, which disposes of the cystocele (Fig. 1). The anterior extremity of the

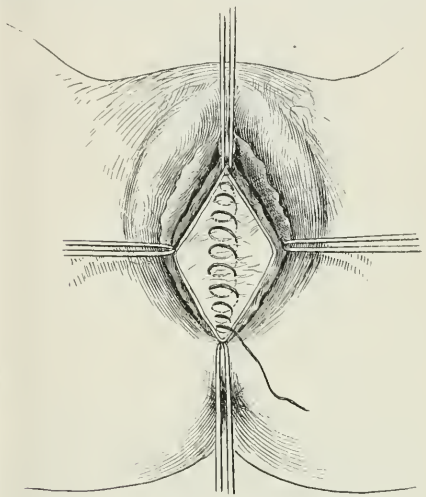

Fig. 1.—Anterior Colporrhaphy. *a*, Running catgut suture.

surface to be removed, viz., the swelling beneath the opening of the urethra, is seized with bullet-forceps and held upward by an assistant. The posterior end, close to the cervix, is caught by a second, drawn out of the vagina, and stretched downward; while the lateral limits are held similarly. When all four are on the stretch the field of operation is admirably exposed. For all denudations Martin employs the knife; and, after one has accustomed himself, more rapid and easy work can be done with it than with scissors.

Then comes a running catgut suture known as the "Etagenaht." Starting at its upper end, a portion of the raw surface on either side of the middle line is caught by the needle. These are drawn together by the suture, and the needle then takes up some of the surfaces next below, and so on from one end of the denudation to the other. The two sides of the wound are thus coapted firmly in their deeper portions, and one story, or *étage*, is finished. A second is then built by catgut carried back over the same course. This usually closes the wound up to the mucous membrane, which is now sewed together by the same catgut, and this step is completed. The advantage of this method of closure is the avoidance of all dead spaces, cavities where fluids may collect and abscesses originate.

The second step is the most original feature. It is a double lateral elytrorrhaphy (Fig. 2). The denudations, made an inch or so apart on either side the columna rugarum posterior, are two long narrow triangles in form, their bases on the crest of the rectocele, their apices just behind the cervix. Each is closed by a running suture as soon as made.

Martin thus explains their purpose and theory: "My plan of operation is based closely upon the physiological conditions existing in the vagina, and occurred to me

when viewing Freund's drawing of perineoplasty.[1] Freund calls attention to the fact that in the H-shaped figure of the vaginal lumen (seen in section), the thicker masses of tissue are to be found in the anterior and posterior vaginal wall, the side walls being remains of the Müllerian ducts, whose coalescence in the median line produces there these masses of tissue rich in fibrous elements (columnæ rugarum posterior et anterior), which are to be plainly felt and seen so long as frequent cohabitation and child-bearing have not smoothed out their folds. But even when the rugæ of the vaginal mucous membrane have disappeared, we are still able to demonstrate, upon section, the existence here of these fibrous collections. With these facts in mind. I make my denudation on the posterior vaginal wall in such a way as not to destroy

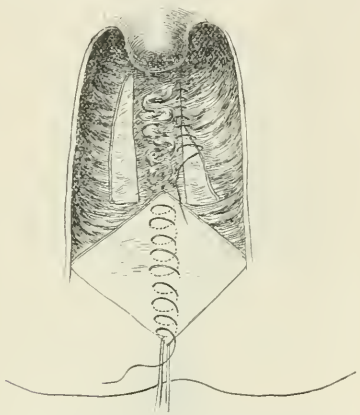

FIG. 2.—Posterior Wall of the Vagina, showing the Lateral Elytrorrhaphies (one partly closed) and Denudation for Perineal Body.

these fibrous elements, as happens in the method of Simon and Hegar. Rather, I employ them for the support of the new vaginal wall, by denuding on either side of them to about half the height of the lateral wall. Thus in the posterior vaginal wall two raw surfaces are made, which about correspond to the inferior fold of the remnant of Müller's ducts; and when these surfaces are sutured the edge of the columna rugarum posterior lies at about half the height of the side-walls, while the columna posterior itself, with its thick mass of connective tissue, is raised. It is in one's power to adapt this elevation of the posterior wall to the needs of each case."

Now, whatever bearing upon operations for uterine and vaginal prolapse pre-natal structures, like Müller's ducts, may have for the German mind, there can be no doubt to anyone who has seen the practical results of this double lateral posterior elytrorrhaphy, that it is a capital method of taking a tuck in a relaxed vaginal tube. And in cases of injury to the pelvic floor with vaginal extroversion, it seems absolutely needful that some such taking up of redundant tissue be practised. The mere construction of a perineal body does not meet the indications. The outrolling walls must be braced in their entire length. Martin's double posterior, combined with the single anterior, colporrhaphy gives lines of support such as whalebone gives to a waist, or buttresses to a wall.

The final step in Martin's operation is the construction of a perineal body. Bullet-forceps grasp the four corners of a quadrilateral (Fig. 2) viz., the middle of the rectocele, the points at either side whose coalescence is to form the posterior vulvar commissure, and the lower angle of the laceration. These are stretched widely apart, the figure sketched with the knife, and denuded. The catgut "Etagenaht" follows, at least four *étages* being usually required to close the wound.

When the laceration extends into the rectum, the plan differs in no essential respect. The denudation is carried down around the rectal tear to the mucous membrane of the bowel, and the continuous catgut closes this on its first trip down the middle of the wound, the needle being carried to, not through, the rectal mucous membrane.

Of course the above method hinges on the sterilization of catgut. Martin's mode of preparation is: Wind on spools (glass). Soak six hours in watery solution of sublimate 1 to 1,000; then twenty-four hours in oil of juniper, two parts, and absolute-alcohol, one part. Remove to fresh solution of the same, and keep indefinitely. Not to be used till after two weeks. When we consider that Martin uses catgut, so prepared, for all plastic work and for all intra-abdominal ligatures and sutures, it will be seen that this method of sterilization has been well tested.[1]

My own experience of Martin's operation comprises some ten cases, of which two were for complete laceration. All presented the usual cystocele and rectocele, frequently with endometritis, and laceration and hypertrophy of the cervix. Severe metrorrhagia had occurred in two cases, and was the cause of the patient's seeking advice. In every case a thorough curettage was practised; the cervix, if hypertrophied, was amputated; if not enlarged, any tear was closed by Emmet's method. The other steps were taken as prescribed by Martin.

All of these cases, with one exception, healed satisfactorily. In that case the temperature rose to 101° F. the evening of the operation, and a diffuse cellulitis of the perineum and buttocks ensued. For this my own carelessness was responsible, as I had allowed the patient to be placed in a ward where was a woman with discharging sinuses from tubercular bone disease. Every antiseptic precaution was, as usual, taken at the operation, but infection followed. Part of the operation wound opened and discharged, but the greater part held, and under irrigation the suppurating surfaces became healthy, adhered, and the final result was as excellent as if primary union had occurred. In one case, that of a lady much depreciated in nervous tone, while the wound healed beautifully, severe hysterical symptoms ensued three days after operation, and involved a prolonged convalescence.

The final result in these cases was all that could be desired. Some of the patients were working-women, and had been unable, without great suffering, to get through their daily tasks. They are now able to work with comfort. In the cases of metrorrhagia the hemorrhage was permanently checked by the curettage. Where uterine prolapse had been present in moderate degree, it was so much relieved that discomfort was no longer complained of. In one case the operation has not cured a severe uterine prolapse, but a pessary is now easily and effectively worn. In this case, as in others of equal degree, I think Martin's operation should be supplemented by ventro-fixation of the uterus.

In the cases of complete laceration the first operation was a frank failure. I took Martin's printed advice, and moved the bowels on the fifth day, when, despite all care, the softened catgut sutures gave way and ruined the sphincter. With commendable courage this lady underwent a second operation. Her diet consisted of animal broths exclusively. These make soft fecal masses, while milk forms huge curds that are difficult to soften, and tear the sphincter. The bowels were not moved till the third week, when she had a soluble, easy stool, leaving a perfect sphincter. In the second case the bowels were constipated till the third week, and though a few of the stitches midway between anus and fourchette suppurated, the ultimate result was perfect.

I have also employed the running catgut in three cases of acute incomplete, and one of complete, laceration of the perineum in confinement. This latter occurred in a woman with small vulva and rigid perineum, in spite of all my efforts to prevent it. All of these cases got prim-

[1] Naturforscherversammlung, Wiesbaden, 1873

[1] In preparing catgut for my own use, fat is dissolved out by ether; then comes a soak in a 1 to 1,000 solution sublimate; then in alcohol; then in oil of juniper; then it is boiled in alcohol two hours, in which it remains till used.

ary union and a perfect functional result. I prefer the buried "Fortlaufende Catgutnaht" to all other methods of closing lacerations primarily.

Clinical Department.

DYSMENORRHŒA.—A CASE THAT TROUBLES ME.

By HORATIO R. BIGELOW, M.D.,
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The so called ordinary cases that consult us are often the most trying ones—ordinary simply because they are frequent and without limit as to the number and extent of the symptoms. It is a matter of regret to me, being still a student, that our medical literature should not discuss oftener these lesser studies in gynecology—which would be helpful to the profession at large—rather than consuming so much space with the mighty things which are interesting only to the purely surgical, and which things, be it said modestly and subject to correction, are becoming repetitious.

The case that troubles me is one of dysmenorrhœa. The symptoms that I have only partially subdued are pain and insomnia. Briefly the history of the case, which was referred to me by Dr. Wilson, of Woodbury, N. J., is this:

Mrs. P——, an anæmic blonde, without children and under thirty years of age, for some years married, has never been without pain during the menstrual period from the time of puberty. During the last two years it has increased in violence. She is regular as to time and amount.

The first day is natural and painless. On the second day the flow stops, and an intense indescribable pain near the left ovary, and descending to the knee of the same side, sets in and lasts for two days (yielding only to large hyperdermatic injections of morphia); then the flux re asserts itself and continues for a week. During the period the patient is confined to her bed or to the house for two weeks. She is exhausted and thin, has an intractable insomnia and no stamina. She was in danger of morphinism when sent to me. Her physical condition is just what might be expected, depression and melancholia having the upper hand. Eighteen months ago she consulted an eminent professor of obstetrics here, who dilated the cervical canal, but to no purpose.

Status Præsens.—An examination of a drop of blood shows a diminution in the normal amount of red corpuscles. Urine, normal; reflexes, normal; weight, 119 pounds; tongue, red and flabby; respiration, normal; pulse, 90; vagina, narrow; uterus, retroverted, first degree; ovaries made out with difficulty, but so far as I can ascertain after several very careful examinations, normal; tubes, normal. There is very slight tenderness in the posterior cul-de-sac, and pain is complained of when the body of the uterus is tilted up on the finger. It is utterly impossible to pass even the smaller sound beyond the internal os. The atresia is perfect. Pressure here by the sound sets up the characteristic pain which is making the patient miserable.

Treatment.—Small insulated sound in the cervical canal connected with the negative pole of the galvanic battery. A large clay pad on abdomen connected with the positive pole, a current of 10 m.m. to start with. Vagina washed out with a one per cent. lysol solution before the operation, and uterus and vagina washed out after. I may mention here that the endometrium was very sensitive to the sound, but the discharge was inconsequent. Séance, five minutes, well tolerated, patient resting for two hours after each sitting. As there were only ten days between the period that could be depended upon, I gave the static bath every other day, and dilatation was practised three and four times between the periods. Porter was ordered. The first flow after this inauguration was attended with less pain, but the insomnia was as bad as ever. For two weeks the patient did not leave the house, and was much exhausted. Treatment was recommenced on the same lines. I found the canal closed as tightly as formerly. I gave chloralamid to induce sleep, and ordered suppositories of cannabis indica, one every day, commencing with the period. This plan of treatment was continued for three months. Nothing got better but the insomnia, and this always yielded to the chloralamid, which acted happily, leaving no ill consequences. Nothing subdued the pain but the morphine injections. Six weeks ago, after thorough irrigation, I dilated rapidly and used a glass-stem pessary. Before doing so I made as careful a diagnosis as I am capable of making, but discovered nothing other than that of which I have written. The static baths quieted and acted as a tonic. She sometimes slept for an hour after them. Everything has been done to enrich the blood-supply. Plenty of out-of-door exercise, milk, eggs, and beefsteak; albuminate of iron, first brought to my notice by Dr. Grünberger, of Carlsbad, and alcohol baths. The last period was worse than any before it. She is now overdue; has pain in the region of the uterus, and a heavy head. The abdominal pain may result from the dilating. The canal is much more permeable at some times than at others. The stricture is more spasmodic. What have I gained? Only this. The insomnia yields to the chloralamid, and this permits her general health a chance of sympathizing with the iron and tonics generally. The endometrium is less sensitive, owing to the electric curetting and to the intra-uterine lysol irrigation. Her appetite is better, and she has more strength to resist pain. What am I to do farther? I do not know. An operation? Not if she can get well without it. I am no great lover of iron. In my hands it has oftener done harm than good. In Scwalbach, the waters caused headache and other unpleasant symptoms. Dr. Grünberger prescribed this form of iron—the albuminate—for my wife, and it did all that he expected. It had escaped my memory until reminded of it by this case. It assimilates well, and is doing its tonic work. If this dysmenorrhœa is due to anæmia, then the iron is, of course, indicated. Perhaps the faultiness of the blood-supply acts as an irritant to a hyperæsthetic condition of the membrane at the internal os, and causes a spasmodic stricture. In a general sense it is understood to be significant of ovarian trouble when that peculiar leg pain exists, and yet, in this case, there is nothing abnormal to be made out in either ovary. Would an operation be justifiable under such circumstances? Is iron indicated, and is this the best form of it to administer? Is the insomnia to be combated with hypnotics, and for how long?

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Influence of Ablation of the Spleen on the Microbicide Power of the Blood.—Dr. Montuori has published the results of some observations on this subject. His method was simply to remove the spleen, preferably from dogs and rabbits, and after a given time to test the bactericidal power of the blood of the animal. His conclusions are as follows: 1. Removal of the spleen is followed by a manifestation of a gradual diminution of the bactericidal power of the blood. This power generally remains about normal for the first fifteen days, being gradually lost between the fifteenth and the thirtieth day; 2, after a time varying from two to four months the bactericidal power gradually returns, and is completely restored in about four months; 3, these effects take place more rapidly in young than in old individuals, and more rapidly in rabbits than in dogs; 4, the germicidal substance is, in Montuori's opinion, of the nature of a ferment; 5, after splenectomy the blood loses not only its germicidal power, but also its power of destroying the corpuscles of other animals introduced by transfusion; 6, the same applies also to the bactericidal powers of the other juices of the body.—*British Medical Journal.*

Progress of Medical Science.

The Pathogeny of Diabetes.—Drs. Chauveau and Kaufmann regard the pathogeny of diabetes as one of the most important subjects in progressive general physiology. The glycemic function plays a most important rôle in the nutritive activity. The blood studied in a fasting subject constantly contains glucose. The subhepatic veins contain most of the sugar of the economy, and the venous blood of the general circulation is always less rich in glucose than the arterial blood. This physiological sugar is, therefore, in an incessant state of formation and destruction. It is formed in the liver (Cl. Bernard) and destroyed or transformed in the capillary networks intermediary between the arteries with red blood and the veins with black blood (H. Chauveau). It is this condition of the blood which is expressed by the term glycemic function. This is, without doubt, an improper term because it implies a manifestation of activity, a movement, while it in reality is applied to a sort of static state. The true glycemic function consists in active nutritive changes which prepare, transform, and utilize the sugary materials of the blood. This state of the blood is commonly designated by the term glycemia. The terms hyperglycemia and hypoglycemia are also readily used, applied to cases of exaggeration or of diminution of the normal or physiological glycemia. The glycemic function, therefore, represents the ensemble of acts which tend to maintain, with the permanence of the glucose in the blood, an equilibrium between the dispensing and the production of this substance. It is well known that glycosuria, the essential symptom of diabetes mellitus, is due to hyperglycemia, that is to say, an abnormal accumulation of sugar in the blood. But what is the immediate cause of this hyperglycemia? Does the blood become too rich in sugar because the tissues cease to appropriate this substance of the nourishing fluid for the needs of the nutritive acts which occur in the heart of the anatomical elements? Does this fluid enrich itself, or the contrary, in sugary material, because the liver turns more of it into the circulatory torrent, or even because other organs become auxiliary to the liver in the sugar-forming function? In other words, is it the consuming of the sugar which is arrested or the production which is increased when this substance accumulates in the blood of the diabetic in sufficient quantity to provoke an elimination by the renal passages? The answer to this remains still in suspense. The method employed by the authors in their effort to solve this problem rests entirely upon the results of the comparative analyses of the arterial and venous bloods of the general circulation. Three cases may present themselves; either the venous blood becomes, as in the normal state, less rich in glucose than the arterial blood, and then the hyperglycemia should be placed to the account, not of a default in the consumption of the glucose, but to an excess in its production, or the two bloods show themselves nearly equally rich in sugar, which necessarily implies a poor using of this substance in the capillary networks and places in this default of consumption the cause of the hyperglycemia; or finally, the venous blood becomes more sugary than the arterial blood, which indicates positively that the hyperglycemia is due to a production of glucose on the site in all of the tissues of the economy. To assure exactitude of the comparative results of the analyses of the two bloods the authors took care to observe: 1. That the two bloods should be gathered simultaneously and in the same amounts. 2. That they were treated exactly in the same way. 3. That the operations in general, particularly the dosage of the glucose by the standard fluid, should always be done by the same manipulator.

In the physiological state the comparative analyses of the arterial and venous bloods practised under the conditions above mentioned never fail to demonstrate that the venous blood is less rich in sugar than the arterial. This same inferiority of the venous to the arterial blood in respect to the quantity of sugar is noticed in all of the deviations of the glycemic function which are provoked by a lesion of the central nervous system. This inferiority likewise shows itself in the hyperglycemia which follows extirpation of the pancreas. The authors will demonstrate this by presenting in a future report the results of the analyses in each particular case.—*The Medical and Surgical Reporter.*

The Etiology of Malaria.—The latest addition to our knowledge of the bacteriology of malaria has been contributed by Dr. Julius Mannaberg, in a paper read before the Society of Physicians at Vienna. He divides the micro-organisms connected with malaria into two groups: (1) Parasites with direct sporulation, without syzygies; and (2) parasites with direct sporulation and with syzygies. In the first group he places the micro-organisms connected with the quartan and tertian varieties of the disease; in the second, the pigmented and unpigmented organisms found in the blood of patients suffering from quotidian ague, and also those described as occurring in the malignant forms of tertian ague. Dr. Mannaberg had observed the latter variety before Marchiafava and Bignami described them, and corroborates these observers in every detail, both as regards the appearance of the parasites and the nature of the disease produced by them. Dr. Mannaberg further demonstrated, by means of special illumination, that the younger forms of all organisms are not found in the corpuscles, as Marchiafava and Celli maintained, but, as Laveran had previously shown, are to be seen adhering to the outside of the red corpuscles. As regards the semilunar bodies in the blood of malarial patients, which have been described by several observers, Dr. Mannaberg states that in forty-three cases of "summer fever" (due to infection by the organisms contained in his second group) he found them thirty-seven times. He considers that these semilunes are formed by the coalition of two to four amœboid bodies, and states that he has been frequently able to demonstrate the approach of such bodies to each other and the subsequent appearance of a semilune. Dr. Mannaberg opposed Laveran's views that the semilunar bodies were the result of the cachexia produced by malarial poison, for he had never seen them in the blood of patients suffering from the forms of disease produced by organisms of his first group when the ague had lasted for a very considerable period, but had frequently found them within the first few days of the fever in the blood of patients suffering from the more severe forms (second group) of malarial poisoning, but in which cachexia was not marked. Finally, he considers the treatment of malaria by quinine, and maintains that the organisms are destroyed and rendered inert by the action of this drug.—*British Medical Journal.*

Virchow on the Sewage-Farm System.—At a recent meeting of the Berlin Medical Society, Professor Virchow discussed the question whether a number of cases of typhus fever which occurred in the autumn of 1891, in the district where the eastern sewage farms of the city of Berlin lie were caused by the drain water (*The Lancet*). The patients did not live on the estates, but only worked on them, returning to their villages in the evening. The estates in question were not administered by the Berlin authorities, but by farmers to whom they were let, and consequently the special sanitary regulations drawn up for sewage estates were not so strictly enforced there as on the other estates. Besides the medical men whose duty it was to report by telephone all cases of illness on the estates to the central office of the city, infectious or seemingly infectious, there were two bacteriologists whose special business it was to examine the drain water for typhus and cholera bacilli, and who have never found any. It was proved that the patients in question had drunk the water, but a temporal relation between the drinking and the appearance of the disease such as would have justified the inference that the latter was caused by

the former was not proved. The bacteriological investigation of the drain water from the fields in question led to no result; but this circumstance was not very significant owing to the length of the interval between the occurrence of the cases and the investigation. It was proved that the number of typhus fever cases that occurred at the same time in the adjacent districts further from the estates was unusually great. In view of these facts, Professor Virchow delared it highly improbable that the cases in question had anything to do with the sewage. The only previous case of typhus fever in the immediate neighborhood of the estates had been traced with great probability to the use of water from a well to which, owing to its bad construction, the water from the street gutter had access. Asiatic cholera had never occurred on the sewage estates, but there were cases of diarrhœa and cholera nostras last year during the cholera epidemic in Hamburg. The patients were inmates of the Rummelsbury Workhouse, who had been working on the sewage estates. It was noteworthy that two cases of Asiatic cholera and several of cholera nostras occurred in the workhouse at the same time. This simultaneous occurrence of more or less severe intestinal diseases with Asiatic cholera had often been observed but never explained. It was worth considering whether the Russian doctor who maintained that severe cases of Asiatic cholera occurred only when comma bacilli entered the body simultaneously with other bacteria was not right. It was necessary to subject the bacteria of cholera nostras to most exact investigation and to compare them with those found in the excreta of cholera patients. Professor Virchow assured his hearers in conclusion that there was no city in the world in which the hygienic supervision of the removal of excreta was so rigorously exercised as at present in Berlin, and that there was no reason to apprehend danger to the public health from the sewage-estate system.

Foreign Body in Hernial Sac.—At a late meeting of the Pathological Society of London (*The Lancet*) Mr. J. Hutchinson, Jr., showed the sac of a femoral hernia, the neck of which was perforated by a strong fish-bone which had evidently passed through the intestinal wall and through Gimbernat's ligament. The fish-bone had irritated the omentum in the sac and had thus given rise to symptoms resembling strangulation. No intestine was present in the sac. After removal of the foreign body (one end of which was fixed in Gimbernat's ligament) the sac and inflamed omentum were excised. The wound healed and the patient made good progress for a fortnight, when an attack of diarrhœa seems to have disturbed the adhesions and led to peritonitis, of which he ultimately died. Attention was drawn to the extreme rarity of this complication of hernia.

The Presence of a Valve at the Neck of the Bladder.—Dr. Opert states the presence of a valve at the neck of the bladder, without being associated with diseases of the prostate and bladder, is not uncommon. Mercier assumed that the condition existed only in old people, and operated with the best results in over three hundred cases.

Von Dittel denies the statement that it is not dependent upon prostatic hypertrophy, but believes that it is due to a spasmodic contraction of the prostatic ring or internal vesical sphincter.

Socin claims that the causes may be either hypertrophy of the bladder as a result of stricture of the urethra, or tumors of the bladder, etc., and as a result of the hyperplasia a bundle of transverse muscle-fibres is raised up, and possibly proves a hindrance to perfect micturition.

Eigenbrodt reports the case of a man, twenty-four years of age, who, since boyhood, had suffered from difficult urination, so much so that at times the urine could only be voided by great straining. Examination of the urethra with the ordinary catheter was impossible, as only the smallest soft instrument could be made to enter the bladder. The first examination of the urethra was followed by complete retention, and all ordinary measures to relieve the same proved fruitless. As a last resort, the urethra was opened in the perineum, a sound was easily passed until it reached the neck of the bladder, when further attempts at introduction were resisted. A small sound, with a sharp curve, was next tried, and after considerable manipulation, it entered the bladder; a catheter was then passed along this sound as a guide and allowed to remain in the wound. Two days later the patient died, and at the post-mortem the following conditions were found: The bladder was greatly dilated, and the contained urine was purulent. The urethral orifice was covered by a transverse, half-moon shape fold of mucous membrane. This fold consisted chiefly of mucous membrane; the base being somewhat thicker, contained muscular fibres, probably a part of the sphincter muscle. The prostate was normal.—*University Medical Magazine.*

Leprosy in Brittany and Morvan's Disease.—Morvan's disease consists, as is well known, in the loss of one or of several phalanges, insensibility of the fingers, hands, and arms, and disturbance of the capillary circulation. Dr. Zambaco-Pacha, who has had considerable experience with leprosy in the East, was struck by the resemblance of some of his patients to those affected with the so called Morvan's disease. In a letter written to Dr. Thibierge in 1891, Dr. Zambaco took the ground that Morvan's disease, which had of late been considered either as a form of syringo-myelia or as an independent entity, was nothing else than lepra mutilans; and that a great many, at least, of the cases described as syringo-myelia, that presented claw-like hands with atrophy of the interosseous muscles, were undoubtedly cases of leprosy of the anæsthetic type. This view was received with much incredulity, and Zambaco determined, therefore, to make an expedition to Brittany, and to see Dr. Morvan's patients. A careful investigation of the various hospitals and asylums was instituted, and inquiries were made in the various small villages about Brest as to the existence of people suffering from deformity or mutilation of the extremities. The result was the discovery of a remarkably large number of persons, chiefly belonging to the lowest class, who were affected by mutilation of the hands. Many of these persons were, without doubt, in the opinion of Zambaco, afflicted with leprosy. The mutilations of the hands were identical with those seen in leprosy, and in many of the patients cicatrices, consecutive to ulcerating tubercles, were present. Several of Dr. Morvan's patients were seen and pronounced to have leprosy of the mutilating type. In the course of Zambaco's investigations several people were encountered who possessed, in addition to the deformed hands, large ulcerated and anæsthetic areas upon the legs. Many of these cases are admitted to have presented some difficulty of diagnosis to those unfamiliar with the appearances of leprosy. But it was possible to find a certain number of classical cases of leprosy in Brittany. These were cases of tubercular leprosy of the face with leonine aspect, tubercular lesions upon other parts of the body, pigmentary and atrophic changes, etc. Several of these cases are represented by photographs, and leave no doubt that more cases of leprosy exist in Brittany than has been hitherto supposed. Zambaco emphasizes the fact that leprosy was, in former times, very prevalent in Brittany, as is shown by the remains of leper asylums, and other signs of its presence. Its existence at the present day had not been suspected, and many doubtful types of disease have been honored with new names, as Morvan's disease and syringo-myelia, most of which cases belong, according to Zambaco, under leprosy. Letters written to the various practitioners in Brittany brought a number of replies, accompanied by photographs, that left no doubt of the very considerable numbers of lepers existing in Brittany. Zambaco believes that the greater part of all the cases described as syringo-myelia and Morvan's disease are, in reality, leprosy of the anæsthetic form, sometimes in an attenuated or slightly modified form.—*Boston Medical and Surgical Journal.*

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WHAT IS PARANOIA?

We have been asked by a correspondent to tell what is meant by the much-used term paranoia. A few years ago this might have been an easy task, for paranoia then meant only a form of insanity which corresponded with what had been called monomania. But of late, systematic writers have split up and subdivided and rearranged to such an extent that there is at present hardly any agreement upon the finer distinctions of the disorder. Paranoia, however, may be considered to be a general term, covering those chronic insanities which are primary in origin, and are characterized by a systemized delusion which dominates the individual. The disease is a chronic one; it affects mainly the intellectual sphere; it is a disorder occurring in the neuropathic individuals who have a bad heredity. It is, therefore, called a degenerative form of insanity. Often the individual has been somewhat queer or eccentric from childhood. Under the stress of competition when beginning his life-work the mind gives way, and he changes from a crank to an out-and-out monomaniac, or what we now call a paranoiac.

There are a great many ways of being a crank, and there is a corresponding and natural diversity in the forms of paranoia. The subdivisions which have been made by clinicians are simple and self-explanatory. Some writers describe a congenital or original, and a late or adolescent, type, in accordance with the period at which the symptoms develop; but this is an unnecessary distinction. All agree that some paranoiacs have depressing, and others expansive, ideas. The former include the people who are constantly suspicious and worried, either about themselves or others.

We have, therefore, the types of the suspicious, the persecutory, and the sexual paranoiacs. Those who have depressive ideas form types of the religious, erotic, inventive, socialistic or reformatory, and querulant paranoiacs.

Some writers describe under the head of paranoia a form of insanity which is termed "Wahnsinn," a word which has been used and misused in so many ways that it is now practically untranslatable. It is best to drop it out of nomenclature altogether, except as indicating a form of acute insanity with excitement, hallucinations, and systemized delusions such as is often seen in asylums. It is there called acute mania, hallucinatory mania, or confusional insanity. It is not a form of paranoia.

"Verrücktheit" is another word which ought to be dropped from scientific medical literature. "Primary verrücktheit" has had about the same meaning as paranoia, but it is a popular, not a scientific name, and its use by alienists has only produced confusion.

Having got rid of these words in connection with the various forms of systemized insanity, the ground is cleared, and there need not be any trouble in the general practitioner using the word paranoia with confidence. Its usefulness lies in its broad application, covering as it does a class of insanities which are degenerative in origin, chronic in course, and characterized by systemized delusions, without much impairment of the emotional faculties or volition, except in a secondary way.

Sometimes there occurs a secondary paranoia as the result of an acute insanity, but these cases are rare.

THE TOXICITY OF URINE.

The French physicians alone seem to have interested themselves in the subject of the toxicity of urine. The results obtained have been quoted widely, but no one seems yet to have been able to reach any certain and practical conclusions. Perhaps this is due to the unpleasant and somewhat uncertain way in which the toxicity is established, viz., by poisoning small animals. If one only could catch and breed a normal rabbit whose vitality should be the standard unit, a kind of rabbit vitometer, the work would be more satisfactory. Still it continues to go on, and recently we find chronicled some new results. Thus it is stated that, from experiments on the toxic properties of the normal urine of man and of domestic mammals, carried out in the laboratory of M. Arloing, M. Guinard arrives at the following classification, starting from the least toxic: Dog, man, pig, ox, guinea-pig, sheep, goat, ass, horse, rabbit, cat. The author thinks that these experiments in comparative physiology may throw some light on the question of uræmia. The conclusions he has arrived at confirm the results obtained by chemical analysis. M. Guinard has also experimented with the urine of other animals besides those just mentioned, and he has found that the bear's comes near to the dog's, whereas the lion's and tiger's resemble the cat's. We presume that the extra toxicity of feline urine may be put into relation with the fact that cats are so liable to have fits.

Further studies have been made by Voison and Peron on the toxicity of the urine of epileptics. They conclude that the toxic action of the urine excreted before the occurrence of a fit or series of fits, is considerably below the normal. This hypotoxicity diminishes in the urine excreted during the period of recurring convulsive attacks. The urinary excretion following a series of fits is hypertoxic if the series be finished, but is not more toxic than normal if more fits are about to occur. Hypotoxicity persists after fits if the latter be followed by maniacal excitement. The urine of epileptics affected with profound mental disorder is constantly hypotoxic, though in these cases there is no departure from the rule that the minimal degree of toxicity is in the preconvulsive period. By estimating the toxicity it often is possible to predict the occurrence of a fit, whether a series has terminated, or whether mental disturbance is likely to supervene. Diminished toxicity of the urine indicates defective elimination of toxins (exciting causes of epileptic phenomena)

from the blood. Support to this view is afforded by Chambrelant's recent experiments, which showed that blood-serum of persons suffering from eclampsia is more toxic during the convulsions, but the urine is hypotoxic at that time. Intestinal antisepsis and avoidance of over-eating are some of the therapeutical measures indicated.

PROVISION FOR THE SICK AND WOUNDED ON THE NEW WAR-SHIPS.

Surgeon-General Tryon, of the Navy, has brought to the attention of Secretary Herbert a strange oversight in the construction of the new war-vessels, most of which seem to have been built without adequate provision for the care of the sick and wounded. In nearly all of these new ships the sick-bay is too small, and is tucked away on the berth-deck, where both light and ventilation are poor, instead of being located on the gun-deck above. On the New York, for example, the sick quarters are quite far forward on the berth-deck, near the torpedo-tubes. There is comparatively little light there, the ventilation is by no means what it should be, and the noise occasioned by working the torpedo tubes could not fail to exert a very prejudicial influence upon the seriously ill.

Dr. Tryon's plan for the improvement of these conditions has been submitted to the Secretary of the Navy and to the Board of Bureau Chiefs, and approved by both. He has suggested that the sick-bay on the New York be greatly enlarged and extended some distance aft, where more light and air can be obtained, and that in all new ships it be located on the gun-deck, when there is one, or well aft in those that are not provided with this deck.

The Surgeon-General very justly insists upon every care and comfort being extended to the sick, and upon comfortable and well-ventilated quarters being provided for them; and we are glad to learn that his counsels in this respect have prevailed with the Secretary, and that his suggestions will be followed.

With a Surgeon-General of Dr. Tryon's attainments, and with a Secretary willing to entertain and act upon his suggestions, we may confidently look to see the medical department of the Navy soon brought to a high state of efficiency, and kept fully on a par with the other branches of the service.

THE AMERICAN MEDICAL ASSOCIATION.

Dr. Culbertson, who has for two years edited *The Journal* of the American Medical Association, and has done it most ably and successfully, has resigned, and returns to Cincinnati to resume connection with the *Lancet-Clinic*. In his valedictory editorial some rather startling facts are told regarding the condition of the American Medical Association. We can present them best in his own words:

"The American Medical Association reached its highest membership in 1888, at Cincinnati. That city is located near the centre of population of the United States, and the meeting was boomed through the local journal. Since that date there has been an annual decline of members and of revenue from their dues. The delinquents have been quite regularly, every year, a little more than forty per cent. of the members to whom *The Journal* is regularly mailed, which indicates faulty collections. While this may be the fault of no one in particular, it is no doubt mainly caused by the distant separation of the treasurer from *The Journal* office.

"In December, 1891, when the publication of the list of members was made, we were gratified at an apparent increase in members, which was, however, more than offset by the immediate receipt from the treasurer of a list of almost five hundred names to be dropped as delinquents. The past year has witnessed an increase followed by a larger decrease."

As a matter of fact, the total membership of the Association has steadily decreased for the last five years, until it is now fifty per cent. less than it was in 1888.

This condition of things is serious, and shows that there is some inherent defect in the organization and conduct of the Association. Dr. Culbertson's remedy is to abolish the delegate system, and reorganize on a plan like that of the National Legislature. The scheme seems most impracticable, but it appears that something must be done.

The new editor, Dr. John B. Hamilton, is energetic, and may prove wise enough to devise a way of stopping the ebbing tide.

MODERN SAMSONS.

A large number of physicians were recently invited to witness the alleged miraculous feats of strength performed by an exhibition "strong man" in this city. We can hardly believe that many of the medical audience were greatly astonished at the performance. The man is undoubtedly very strong and has an interestingly huge muscular development. But the feats which he performed were not so very much beyond what amateur athletes can do. The lifting of a "human dumb-bell," *i.e.*, an iron rod with a small man at each end, is accomplished partly by a trick of strength well known to those who practise this kind of exercise. The supporting of two small horses and a very small pony on a platform was also more ingenious than masterful. It is unfortunate, at least from the medical standpoint, that the man does not go through some straightforward tests that would show in a more exact way how much he exceeds the average man in muscular power. Thus the experiments of Rey and Maréchal show that a man in good health has a power of hand pressure equal to forty or fifty kilogrammes and a force of prehension equal to one hundred and thirty-two kilogrammes.

The following are the measurements of the man, and given out as correct: Neck, 18½ inches; biceps, 19½ inches; forearm, 17 inches; chest, normal, 52 inches; contracted, 46 inches; expanded, 58 inches; waist, 29 inches; thigh, 26¾ inches; calf, 18 inches; height, 5 feet 8½ inches; weight, 199 pounds.

The most extraordinary of these figures are the chest measurements. The average man weighing 145 pounds, 5 feet 8 inches high, has a chest measurement of only about thirty-four inches. The measurement of professional athletes and pugilists rarely goes much above 40 inches.

Dr. Lapponi, the Pope's physician, says that his illustrious patient is in excellent physical condition, and ought to live for many years to come.

News of the Week.

The First Experiment in Inoculation in Russia.—On October 26, 1768, the Empress Catherine II. (*vide* a work just published by M. Waliszewski, entitled "Roman d'une Impératrice") submitted to inoculation her own august person, being the pioneer of the practice in her own dominions. At that time this was regarded as an act of heroic self-abnegation, and Voltaire expressed his admiration of the Empress in these terms: "Sa Majesté se laisse inoculer avec moins d'appareil qu'une religieuse ne prend un lavement." The preparations for the novel function were most elaborate, the operator being an Englishman named Dimsdale, summoned expressly from London. M. Waliszewski makes the following comment on these preparations: "On fait moins d'embarras aujourd'hui pour trépanner un homme ou pour lui ouvrir les entrailles." The lymph was supplied by a boy of seven named Markof. This boy was ennobled under the fancy name of Ospiennyi (ospa = smallpox), and brought up under the Empress's own tutelage. His descendants occupy at the present day a prominent position among the Russian aristocracy. Mr. Dimsdale was created a Baron, appointed Councillor of State and Body Physician to Her Majesty, and allotted a pension of £500 per annum. The present Baron Dimsdale is, I imagine, a descendant of our compatriot.—*Lancet.*

Woman Students at French Faculties.—There are at the present moment one hundred and thirty-one ladies registered as students at the seven French medical faculties. Of this number ninety-five are Russians, twenty-five French, four Roumanians, two Bulgarians, two Servians, one German, one Turk, and only one English. No one who has studied in Paris can avoid remarking the preponderance of the Muscovite element among these fair aspirants for medical honors.—*Lancet.*

The Money Expended for State Health Boards.—Dr. Archibald Dixon gives the following figures showing the amount of money appropriated each year for the State Boards of Health: Massachusetts, $111,300; Louisiana (about), $100,000; Texas, $61,000; Illinois, $49,000; Mississippi, $46,550; Minnesota, $29,000; New York, $25,000; New Jersey, $21,500; Wisconsin, $20,500; Michigan, $16,145; Alabama, $13,000; Maryland, $13,000; California, $12,500; Connecticut, $10,000; New Hampshire, $8,500; North Carolina, $5,500; Indiana, $5,000; Iowa, $5,000; Pennsylvania, $5,000; Maine, $5,000; Kansas, $4,500; Ohio, $4,500; South Carolina, $4,000; Tennessee, $3,000; Rhode Island, $2,700; Kentucky, $2,500; Vermont, $2,500; West Virginia, $2,000; Delaware, $350. This shows that only twenty-nine States expend money for this purpose. The figures, however, are very misleading. Most of the Texas and Louisiana money goes for quarantine, while the money spent by New York and other States for this purpose is not included. The amounts spent by cities for public health also exceed very much that spent by the States.

Bicycle Kyphosis.—One evil traceable to bicycling is the confirmed stoop which has already declared itself in many wheelmen, a result so common in the less strongly built bicyclists of the continent as to have found its way into classification as the "kyphosis bicyclistarum." The dorsal curvature posteriorly, which used to be rare in boys under fourteen years of age, is, now that the bicycle is so largely used, very frequently met with, particularly among those young bicyclists whose spinal column is developing more rapidly than the ligaments and muscles, and in whose case, therefore, the equilibrium between those parts is more or less disturbed. Were it merely an unsightly deformity, the stoop in question ought to be combated in every way; but confirmed dorsal curvature posteriorly has consequences of its own quite mischievous enough to call for immediate counteraction. The displacement, embarrassed functional activity, and arrested or diseased development of the organs which kyphosis inevitably induces, are all too serious to warrant the slightest neglect in remedying them. Exercise of a kind to accustom the spinal column to an action directly antagonistic to the inclination forward of the bicyclist's attitude is what is needed. The use of the Indian clubs or such similar means of incurvating the spine anteriorly, throwing out the chest and maintaining the head erect, should be practised with that object. All the undoubted advantages of bicycling may thus be retained, without that cultivation of the stoop which tends to take a cubit from the stature of its inveterate exponents, and to impose a hunchbacked development on what it would then be a figure of speech to call the rising generation.—*Lancet.*

Ophthalmic Solutions and their Ready Sterilization.—Dr. Sydney Stephenson has recently presented before the London Ophthalmological Society a set of new eye-drop flasks devised by Dr. Stroschein, of Würzburg. Sterilization by boiling is facilitated by the use of these flasks, in respect of solutions of atropine, etc., that are in daily and hourly use. The flasks are four in number, and vary in color with the different solutions they are to contain. A white bottle is prepared for cocaine, a black one for atropine, a blue for homatropine, and a red one for physostigmine. In addition, the name of the drug is deeply etched on the flask. The cost of a set of these flasks is, in London, less than three dollars. The peculiarity of the flasks consists in their being made of thin glass, so that they do not break under the application of a small flame. A pipette accompanies each flask, the india-rubber cap of which is removed during the application of heat. A wire gauze on a little tripod goes with the set. This supports the flask with its pipette while the solution is being boiled for three minutes over a small spirit-lamp. Solutions that are in constant use should be thus treated at intervals of a few days. To obviate the tendency of these boilings to concentrate the solution, it is Dr. Stephenson's practice to add a few minims of distilled water before each boiling.—*New York Medical Journal.*

Pan-American Medical Congress. Notice to Intending Contributors.—The regulation of the Congress providing that abstracts of papers shall be in the hands of the Secretary-General on or before July 10th, was framed to give the Literary Bureau ample time in which to make the necessary translations, and publish the four editions of the book before the assembling of the Congress. The request that abstracts be sent in even before the date indicated has been so generally complied with, and the work is so far advanced, that the Literary Bureau finds

itself in position to accept abstracts during the remainder of July. To insure careful translation and publication, however, they should be sent in at the earliest possible date. It is suggested that abstracts be made as full as possible within the six-hundred-word limit.—Charles A. L. Reed, Secretary-General, 311 Elm Street, Cincinnati.

The Section on Diseases of Children of the Pan-American Medical Congress, under the presidency of Dr. John M. Keating, is rapidly completing its programme. The titles of a large number of papers have been received and the attendance promises to be large. Many prominent men whose names have become identified with this department of medicine will be present. Physicians interested in the study of the diseases peculiar to children are cordially invited to attend these meetings. Those desiring to contribute papers should send the titles at once to the secretary, Dr. Floyd M. Crandall, 113 West Ninety-fifth Street, New York.

Mr. Luther Holden.—The distinguished author of "Holden's Osteology" and of "Manual of Dissections" recently passed through the country on his way home after a tour of the world. Mr. Holden is seventy-eight years of age; he is, however, as clear in mind and body as when he wrote the books which have been read with genuine pleasure by successive generations of medical students.

The World's Fair.—The various surgical exhibits at the Chicago Exhibition are to be found in the Department of Liberal Arts, in the gallery of the Manufacturers' Building. By exception, however, and for some unexplained reason, the principal part of the German surgical exhibit is in the northeast gallery of the Electricity Building. The exhibit of surgical splints is near the centre of the United States surgical exhibit.

Under Laws of most States the physician is exempted from jury duty, on the ground that his occupation is affected with a public use. In defiance of this principle, more than one city has attempted to exact a license-fee from the physician. Norfolk, Va., furnishes the latest instance of this demagoguery.

The New Buildings of the Chicago Medical College.—The laboratory of the new buildings for the Northwestern University Medical School, which has been in process of construction for a year, is now completed. It is a handsome building, one hundred and ten feet square, constructed of stone, pressed brick, and terra-cotta. It contains large, finely lighted and appointed laboratories of physiology, physiological chemistry, pathology, histology, bacteriology, chemistry, pharmacy, botany, anatomy, and operative surgery, besides lecture-rooms and museums. Some of the novel features of the building are the distribution of live steam through it, by which much cooking can be done without gas; the distribution of compressed air to the lecture-rooms, and an ice-machine for the preservation of anatomical material, by means of which the ice-box can be kept at any desired temperature and kept dry as well. Besides the Laboratory building, another college structure, the South Side Dispensary, is rising and will be completed in the autumn. In it will be additional lecture-rooms, and accommodations for the Dispensary. The building will be fifty-five by one hundred feet in surface area, and four stories in height. Mercy Hospital is being enlarged and doubled in capacity. Its four hundred beds, the one hundred and fifty at St. Luke's Hospital, and forty at Wesley, will give the college nearly six hundred beds from which to obtain subjects for bedside clinics. The new college buildings are on Dearborn Street, between Twenty-fourth and Twenty-fifth Streets.

The Case of a British Army Surgeon.—The recently settled case of Surgeon Briggs, of the British army, demonstrates therein a condition of affairs which could not exist under the vilest political spoilsman of the United States. Dr. Briggs attended the wife of an English nobleman who had been forcibly subjected to sexual pervert outrages by her husband, while resident in India. The wife appealed to the London Divorce Court and summoned Dr. Briggs from Calcutta as a witness. She obtained her divorce amid universal execration at the vileness of her husband, through whose social influence Dr. Briggs was dishonorably discharged from his position in the army. The Duke of Cambridge, commander-in-chief of the British army, superciliously resented all attempts of Dr. Briggs to secure justice. Appeal to the House of Commons resulted in complete reinstatement of Dr. Briggs, with the declaration that his discharge had been illegal and of non-effect. With such revelations in the British army medical service, with the recent showing that the Marquis of Salisbury and a couple of dukes are able to set sanitary ordinances at defiance by social influence, British criticism on the American spoils system is in decidedly bad taste. The mote in the American eye stands no comparison with this British beam.—*Medical Standard.*

The Pan-American Medical Congress Excursion to Rome.—It has been definitely determined that the Pan-American Medical Congress excursion to the Eleventh International Medical Congress will sail on the steamship Werra, from New York, September 9th, the day following the adjournment of the Congress at Washington, and will arrive at Genoa September 20th, four days before the opening of the Rome meeting. Round trip steamer tickets may be procured for $142.50 for inside rooms, and $150 and upward for outside rooms. Tickets are good for members of the Congress and their families, and may be used at option of holder to return on any steamer of the line from Genoa, or on Saturday steamers from Bremen, or Sunday steamers from Southampton, during the months of October, November, and December. Physicians desiring to avail themselves of this exceptionally low rate should at once become members of the Pan-American Medical Congress by sending the registration fee ($10) to the Treasurer, Dr. A. M. Owen, Evansville, Ind., and informing the Secretary-General, Dr. Charles A. L. Reed, Cincinnati, of their intention to join the excursion. Passage should be secured without delay, as the trip, involving, as it will, a stop at the Azores and Gibraltar and a sixty hours' sail along the picturesque coasts of Spain, France, and Italy, promises to be very popular. Many prominent European guests of the Pan-American Congress will return on this occasion. The time allowed will afford American physicians an opportunity to not only attend the International Congress and visit Rome, but to extend their journey to the famous sanatoria of South France and the Riviera.

The State of Pennsylvania at Last has a medical law like that of the State of New York. In order to make it thoroughly efficient, the Legislature was obliged to create a supervisory board, corresponding to our Board of Regents, but which is there called the Medical Council. The details of the new law are not at hand at the present writing, but this much we know, there are three boards of examiners, corresponding to the so-called schools of medicine. The examinations are written, and are exactly alike, except in the matter of therapeutics. It was only by yielding to the homœopathic practitioners in the matter of having a separate board that Pennsylvania at last achieved this reform.—*Post-Graduate.*

To Regulate the Character of Patent Medicines.—The following bill was introduced into the New York State Legislature. It failed to pass, but it is an effort in the right direction, and we print it in the hope that our readers may exercise their influence with the next set of legislators in order to secure some supervision of patent medicines.

Section 1. In addition to the powers now conferred by law upon the State Board of Health, said Board is hereby empowered, and it shall be its duty, upon receiving a fee therefor of $50, to cause an examination and analysis to be made by a practical chemist of any drug, medicine, or mixture of drugs, herbs, or medicines, commonly known as patent or proprietary medicines, and shall ascertain and determine whether the use of the same may not endanger the public health; and it shall not be lawful for any person or persons, or corporation, to sell or offer for sale any such drug, medicine, or mixture not prescribed by a regular physician, unless the same shall have been so examined and approved and certified.

Professor Von Esmarch has done 20,000 important operations. He is now seventy years of age, and if he lives ten years more he will stop working and write his memoirs.

The Kentucky School of Medicine has joined the four-year class.

A Congress of Nonogenarians at Paris.—The editorial staff of *La Science médicale* has undertaken to convene, for scientific purposes, a considerable number of aged persons. No distinction as to nationality will be made in regard to old people who are provided with documents proving that they have passed the age of ninety years. Expenses of travelling and lodging at good hotels are to be defrayed by the medical committee in charge of the affair, and the well-being of the delegates will be cared for during their stay at the congress. Three gold medals will be awarded, one to the oldest, one to the strongest, and one to the most intellectual. Although there are supposed to be not fewer than two hundred centenarians in France, the presence of a few only of them may be expected; by far the greatest number of them reside in the departments that skirt the Pyrenees. It is supposed that the congress will have for its president Dr. De Boissy, who practised medicine at Havre for seventy years. He was born in April, 1793. Dr. De Boissy is still vigorous, and not long since read a scientific paper before a public meeting. The convention will be called to order on July 25th at the Palais des Arts libéraux.—*New York Medical Journal.*

The Cincinnati College of Medicine and Surgery.—The chair of the Principles and Practice of Medicine in this school has been tendered to Dr. J. C. Culbertson, the retiring editor of the *Journal of the American Medical Association.* Dr. Culbertson has returned to the editorial chair of the *Lancet and Clinic*, after an absence of two years at Chicago.

A Medical Bishop.—A district of southeastern Africa, called Lebombo, has been apportioned to become a new diocese, and the Rev. William E. Smyth, M.D., has been appointed by the Anglican Church authorities to the bishopric.

Odi Persicos.—On June 24th, Goolam Kader, a notorious Arabian quack oculist, was held for trial in Special Sessions on a charge, made by the Medical Society of the County of New York, of practising medicine without a license; bail being fixed at $500. A few days previously he had opened an office and inserted glowing advertisements in a number of newspapers, including several published in French, German, and Italian. One of these attracted the attention of Dr. Ferdinand C. Valentine, an accomplished linguist, who, as the editor of *Medical Abstracts*, is in constant receipt of all the foreign medical journals; and he at once recognized the name as that of a quack who, on account of his outrageous practices, had been prosecuted in Genoa, Brussels, Cologne, Berlin, and many other Continental cities. Dr. Valentine found from his reading that his favorite operation was that for cataract, and that in consequence of his so-called "cures" hundreds of cases of total blindness had resulted. He at once reported the fact of the man's establishing himself in New York to the County Medical Society, and the career of this dangerous charlatan here was quickly cut short. The other American cities will now have to be on the lookout for him.—*Boston Medical and Surgical Journal.*

Reviews and Notices of Books.

The Cardinal Symptoms of Urinary Disease. Their Diagnostic Significance and Treatment. By E. Hurry Fenwick, F.R.C.S. Eng., Surgeon to the London Hospital, Surgeon to St. Peter's Hospital for Stone and other Urinary Diseases. 8vo, pp. 349. London: J. & A. Churchill. 1893.

This volume is the outcome of a very careful clinical study of two thousand cases of urinary diseases of different varieties, most of which were seen by the author in consultation or hospital practice. The thorough and patient examination of salient symptoms, their significant diagnostic points, and the practical indications for treatment, are presented in such an intelligible and tangible form that they cannot fail to interest and instruct everyone who devotes his time to the edification, not to say enjoyment, of the volume. To anyone who has been accustomed to rely upon the older methods of investigation before the employment of vesical illumination, new and enticing fields of study are constantly presented in the skilfully recorded cases, and the practical application of cardinal principles that is evolved. The divisions of the general subject are comprised in the discussion of hæmaturia, frequent micturition, vesical irritability, and the direct and reflex neuroses of urinary diseases, concluding with an interesting and instructive chapter on abnormal urination. This is a natural clinical division of symptoms which pertain to a large class of pathological conditions which are, for the most part, of a perplexing character to the superficial

observer. Under hæmaturia, which is the subject most exhaustively treated, a careful examination of its different sources in the urethra, prostate, bladder, ureter, and kidney is practically demonstrated. Thus, in the estimation of each and all of the pathological processes associated with bloody urine, we are led to consider the different traumatisms, inflammatory conditions induced by vesical, urethral, and renal calculi, mechanical irritations, and morbid and benign growths of the urinary tract. The proper understanding of the varied causes of these troubles prepares the reader for the practical application of principles of treatment which, as may be anticipated, are judiciously and intelligently carried out. The study of frequent micturition is invested with a clinical interest which is also in keeping with the general purpose of the work, and is a fitting preparation for the appreciation of the excellent exposé of obstructive disease in its relation to vesical irritability, and the lucid explanations of the significance of pain and reflex neuroses. The chromo-lithographic plates are well made and typically illustrative of salient pathological conditions. Altogether it is a classic of its kind, and will well repay careful perusal and patient study.

Handbook of Pathological Anatomy and Histology. With an Introductory Section on Post-mortem Examinations and the Method of Preserving and Examining Diseased Tissues. By Francis Delafield, M.D., LL.D., Professor of the Practice of Medicine, College of Physicians and Surgeons, Columbia College, New York, and T. Mitchell Prudden, M.D., Professor of Pathology and Director of the Laboratories of Histology, Pathology, and Bacteriology, College of Physicians and Surgeons, Columbia College, New York. Illustrated by 300 Wood-engravings, printed in black and colors. Fourth revised and enlarged edition. New York: William Wood & Co. 1892.

This admirable treatise is so well known that praise is superfluous. A comparison of the present with former editions will convince the reader that not only have many new drawings been added, but the text has been thoroughly revised and amplified. The work is illustrated by a large number of wood-engravings, many of them printed in colors, of unusual excellence of workmanship, clean cut and distinct. The chapters on the respiratory system, alimentary canal, and bones are particularly noticeable in this respect, although many of the drawings illustrating tumors are also very superior. The section on infectious diseases, again, is rich in colored drawings representing the various kinds of pathogenic micro-organisms.

In the introductory section to the chapter on tumors, we note that the authors maintain a conservative attitude with regard to the recent parasitic theory of the origin of carcinoma.

The work is, we venture to say, one of the finest specimens of the bookmaker's art to be found in medical literature at the present day, and apart from this it will, by reason of its intrinsic value and of the undisputed authority of its authors, continue to maintain its prominent position as a worthy exponent of American progress in pathology.

The Electro-therapeutics of Gynecology. By Augustin H. Goelet, M.D., Fellow of the New York Academy of Medicine and of the New York Obstetrical Society, Vice-president of the American Electro-therapeutic Association, Editor of the "Archives of Gynecology, Obstetrics, and Pædiatrics," etc. Two vols., pp. 194 and 203. Detroit: George S. Davis. 1892.

These little volumes include a complete résumé of the subject of electro-therapeutics as applied to diseases of women. Volume I., consisting of five chapters, is devoted entirely to electro-physics and electro-physiology, and for that reason will be less interesting to the general reader than Vol. II. The criticism to be urged against the chapter on apparatus applies to nearly all the recent monographs on this subject—too many and too complicated appliances are mentioned. The general practitioner (for whom the book is ostensibly written) has neither the money nor the inclination to provide himself with such expensive instruments. If, as one would infer, these are indispensable to the proper employment of electricity, most men would be deterred from using it.

The second part of the book deals with electro-therapeutics, which one would infer may be profitably applied to every pelvic trouble, from amenorrhœa to pyo-salpinx and hæmatocele. The author's extreme views on this subject are familiar to specialists, few of whom follow him as far as he is inclined to go. Nevertheless, there are many valuable hints to be found in this volume, which bears the marks not only of scientific enthusiasm, but of wide experience.

No candid observer questions the value of electricity as a palliative measure in the treatment of many pelvic disorders, and it is manifest that those are best entitled to set forth its claims who have applied it most carefully and patiently.

We find much to commend in Dr. Goelet's book, but would suggest that condensation would render it both more readable and more useful to the general practitioner.

Diseases of the Skin. Their Description, Pathology, Diagnosis, and Treatment, with Special Reference to the Skin Eruptions of Children. By H. Radcliffe Crocker, M.D. (London), Fellow of the Royal College of Physicians of London, Physician for Diseases of the Skin in University College Hospital, etc. Second Edition, Revised and Enlarged, with 92 woodcuts. Philadelphia: P. Blakiston, Son & Co. 1893.

Many valuable additions to the original text and the introduction of wholly new chapters, for the most part devoted to subjects which are either themselves new or made necessary to look upon in a new light by modern investigation and advance, render this second a decided improvement upon the first edition. As now presented to students and those engaged in general or special practice, it may safely be claimed to be the most complete work in the English language. In order that the student may most benefit from his study, especial attention has been paid to the arrangement of subjects, and a page of instructions has been added showing how to make the best use of the work.

From his long connection with the East London Hospital for Children, the author has been enabled to give particular attention to eruptions as they occur in childhood. This is a feature of the work which is usually much neglected in general text-books, and its value is the greater from the known practical experience which the writer has had in this field. Among the new articles are noticeable those on Morvan's and Darier's diseases, adenoma sebaceum, epidemic exfoliative dermatitis, seborrhoic dermatitis; which is the same condition of dermatitis under its various forms, to which Unna gave the name eczema seborrhoicum, erythema induratum, parakeratosis variegata, etc. An appendix containing an analysis of twelve thousand cases, information concerning natural mineral waters, formulæ, varnishes, plasters, mercurial hypodermic injections, and other useful knowledge is added. There are 987 pages including the index, and as the publishers have tacked on some thirty odd pages of advertising matter, it makes quite a heavy volume. The print and paper are good.

The Anatomy of the Peritoneum. By Franklin Dexter, M.D., New York. Published by D. Appleton & Co., New York.

This little book shows the development of the peritoneum, which offers the student of anatomy suggestions that cannot be found in the text-books. The illustrations are diagrammatic, some of which are colored.

Smoking Compartments for Ladies are now provided on all Russian railway trains.

Society Reports.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, May 18, 1893.

D. B. ST. JOHN ROOSA, M.D., PRESIDENT, IN THE CHAIR.

The Organization and Equipment of the Division of Disinfection of the New York Health Department and the Method of Work.—Dr. Hermann M. Biggs read the paper. The object was to furnish to the medical profession of the city more detailed information in regard to the methods of this department of the Health Board, and to solicit their assistance in the work which it had to accomplish in limiting the spread of contagious diseases, etc. Until September, 1892, the work of disinfection was included in the duties of the Department of Contagious Diseases. Then it was transferred, making a department which included bacteriology, pathology, and disinfection, Dr. Biggs being placed at the head of this department. Under the present regulations the city was divided into sixteen districts, and to each district was assigned a medical sanitary inspector. Whenever a case of contagious disease was reported to the Health Department this inspector was sent to the house, and it was under his instructions that the methods of disinfection, etc., were carried out. The directions in the work assigned to the sanitary inspector were essentially as follows: Every case of contagious disease must be visited on the day of the report. School cards were to be at once sent to principals to exclude children from the schools who resided on the same floor, or all children in the house, if a dwelling or boarding house. Scholars excluded were not again received until notice was sent of the termination of the disease and disinfection of the premises Under certain circumstances isolation in the house was permitted. A circular on contagious diseases was distributed among the families in the house. The inspector had to revisit the patient if isolated in the house at least every four days and report to the chief. If, however, the house was occupied by but one family, the inspector visited the patient only at the request of the family physician. At the termination of the illness the central office was notified and disinfection was made.

Organization of the Department of Pathology and Bacteriology. — The headquarters of this department were at 44 Bleecker Street, and the disinfection department at the foot of Sixteenth Street. Thirty men were employed, there being a chief inspector, an inspector of bacteriology, etc. The paper gave a detailed description of building, which contained the cremation furnace, the disinfection apparatus, etc., at the foot of Sixteenth Street. The disinfection chamber measured inside seven feet in length, six feet in height, and six feet in width. The articles to be disinfected were put into this chamber from one room and taken out in another entirely shut off from the first. The employees on the two sides did not intermix, and were distinguished by brown and white suits. Heat and steam were employed for disinfection in this chamber. There were also provisions for disinfection of certain articles by solutions of corrosive sublimate and carbolic acid. The department in Bleecker Street was the place where bacteriological investigations had been made. This work had consisted chiefly in examinations for suspected cases of cholera and typhus fever, and in distinguishing between true diphtheria and pseudo-diphtheria. A large number of cases reported as diphtheria were found on bacteriological investigation to be pseudo-diphtheria. This being true of many cases in which the diagnosis of true diphtheria had been made by the attending physician, the inspector and perhaps others. This work was under the charge of Dr. Dunham. The department has also made a bacteriological analysis of the water-supply and of milk, and of the germicidal value of disinfecting processes.

There were about twenty supply depots throughout the city for disinfectants. Wagons delivered the disinfectants at these depots, and it was there that the disinfectors for the district obtained their supply. A sample valise was shown which contained the articles used by the disinfector in the prosecution of his work, as pans, bichloride tablets, sulphur, overalls, and all articles required in the work. In using sulphur in a room, three pounds were burnt for each thousand cubic feet of air-space; the room was made as tight as possible, and the air saturated with moisture during the disinfection process. The most difficult point was in disinfecting the upholstery, and owners were advised to have their furniture reupholstered. Bedcovers, etc., were disinfected at the foot of Sixteenth Street. The amount of work done was only faintly suggested by the fact that over sixteen thousand pieces had been received and disinfected at the station during the first quarter of this year. Ambulances carrying patients to the Willard Parker Hospital were disinfected after each trip. The disinfection of carpets, like that of upholstered furniture, had caused Dr. Biggs considerable thought. They ought to be rolled up and kept from exposure as soon as the nature of the disease was known.

The President read a brief communication from Dr. Janeway, expressing belief in the wisdom of establishing a bureau with such a complete equipment as Dr. Biggs had detailed, and advising all to co operate with the Health Board in combatting preventable diseases.

A Chance for Philanthropic Money-making.—Dr. A. Jacobi wished to again call attention, as he had done two or three times before, to the need of a place where the well children could be taken when a case of contagious disease developed in a family. Again, there ought, as he had said before, to be many Willard Parker Hospitals, and especially one where well-to-do-people could be taken who might get diphtheria, scarlet fever, etc., while stopping at hotels. Since the city could not keep a hospital specially for those well able to pay for service, he thought it would be not only an act of philanthropy, but a paying enterprise for some doctors to establish a private hospital of that nature—to be, however, under the general supervision of the Health Department. He knew of hotels in which diphtheria broke out in certain rooms year after year, simply because the proprietors did not take such steps as would destroy the germs before new tenants were put into them.

Dr. Joseph D. Bryant, to whom credit was given for establishing the department of which Dr. Biggs was the head, was called upon, and said that such a department had been the dream of his existence during the six years he had been connected with the Health Department. The contrast with the state of things in 1886 was very great. At that time the place for disinfection had been aptly compared to a smoke-house. In the fall of 1887 Mayor Hewitt willingly gave the department $3,600, with a view of establishing a suitable disinfecting apparatus, and under the direction of Dr. Prudden and Dr. Biggs the present apparatus was put up, certain improvements having been made since. Then the ability to isolate cases of contagious disease had been wonderfully increased by new pavilions, etc., built in the past few years.

He said the reference of Dr. Jacobi to sick guests in hotels applied with equal force to private houses. There was no escape from such cases except to remove them to the hospitals, where patients coming from tenement-houses were also received. The next great step in advance would be a hospital where persons of means could be received and have at their own expense all the advantages which could be obtained in their own homes, such as the attendance of a private physician, nurses, etc. It would be in a general way under control of the Health Department.

The value of the bacteriological work done by the department could hardly be better illustrated than by the fact that over fifty per cent. of the cases admitted to the hospital as cases of diphtheria were shown by bacteriological examination to be a simple form of membranous

sore throat. Besides proving a protection to the sick and well, such knowledge promoted the interests of the city by lowering the percentage of a serious disease. Dr. Bryant closed by urging the earnest co-operation of the profession with this department.

Dr. Brannan said the importance of having separate hospitals or pavilions for the several forms of contagious disease had also received attention in England. It was necessary, in order to avoid the possibility of a patient suffering from one disease, say from measles, acquiring a more serious one, as scarlet fever. Might not the same accident occur by using one ambulance for transportation, in spite of the custom of the department to disinfect it after each trip?

Credit to Bacteriology.—Dr. T. Mitchell Prudden said that when we looked back a decade in bacteriology we saw work now accomplished in the prevention of disease which had hardly been dreamed of ten years or more ago. Another thing was the promise, or at least the hope, of curing patients with contagious diseases by such means as experiments based on bacteriological research might discover. Unfortunately, a good many people—and it seemed a good many doctors, too—were standing in the way of work in this line, instead of helping it along. The Board of Health deserved much credit, as it not only was not a stumbling-block, but was even taking the lead. It should have the warm co-operation of the medical profession.

Flies, Meat, and Cholera.—Dr. G. M. Sternberg said with regard to diphtheria that he had not so much faith in sulphur fumigation, since the germs in the diphtheritic membrane on clothes, carpets, etc., were difficult to destroy.

As to cholera, it had been demonstrated that the dejecta of flies might contain living cholera spirilla, and he had had some experience which led him to think flies might have been the means of spreading the disease by alighting upon articles of food, especially meat. In 1867 he was in an isolated camp in Kansas. Some troops from St. Louis were posted on the opposite side of the river and below. The water-supply was quite distinct. Cholera, which existed among the troops from St. Louis, first appeared in the butcher of the other camp. Doctor Sternberg and the nurses who attended many cases afterward escaped, and none but the servant-girl in the hospital contracted the disease, and she handled the meat.

Dr. Beverley Robinson impressed the need of a hospital where strangers could go with contagious disease, by reciting a case to which he had been called at a hotel during the naval parade. The man, an Englishman of note, had to be taken to the Willard Parker Hospital among cases from all parts of the city.

Contagious Ophthalmia.—The President took advantage of the opportunity, and called the attention of the physicians present connected with the Board of Health to the fact that there was also need of a hospital for those suffering from contagious ophthalmia, for it should be remembered that the blind were a burden upon the State, while those dead from scarlet fever and other contagious diseases were not.

Dr. Biggs closed, and said that of the twelve cases of cholera in the city last fall, seven were in butchers or their families, and only one in a person not connected with a food trade, making it not improbable flies had carried the poison.

SECTION ON OBSTETRICS AND GYNECOLOGY.

Stated Meeting, May 25, 1893.

H. J. Boldt, M.D., Chairman.

Symphyseotomy. — Dr. J. Clifton Edgar presented an Austrian on whom he had performed symphyseotomy March 24th. The conjugate was estimated at three and a half inches, and it was thought the head might pass by aid of axis-traction forceps. These were tried, but without success. The parents objected to any cutting operation, preferring destruction of the child, but Dr. Edgar performed symphyseotomy and extracted a living child, he cut from above downward and from before backward. Podalic version was performed, and some difficulty was experienced as the head came through. There was still slight motion at the symphysis, but it did not interfere with walking.

The Symphysis will Care for Itself.—Dr. Howard A. Kelly, of Baltimore, thought too much anxiety had existed as to union at the symphysis following symphyseotomy. He wished to put on record a case which had a bearing on this point and because it was the second one in America so far as he knew. The woman came to Johns Hopkins Hospital after an exceedingly difficult labor, during which there had been spontaneous separation at the symphysis, which was followed by abscess and sequestra from the pubis. There was absolutely no joint, yet after repair of an enormous vesico-vaginal fistula and other treatment demanded by her lesions, repair at the symphysis began to take place and they expected to get union and a useful joint. Her gait was improving and becoming less waddling.

Dr. A. F. Currier related a case briefly which served to show that nature probably often allowed separation of the symphysis sufficiently to allow the passage of a child which the attendant thought would call for interference.

Fibroid of the Uterus; Mummified Fœtus.—Dr. H. T. Hanks presented a fibroid of the uterus which he had removed by abdominal hysterectomy, and on clearing out the bottom of the pelvis was surprised to find some bones, evidently the remains of a tubal abortion. Inquiry of the husband brought out the fact that four years before the patient had had symptoms plainly pointing to tubal abortion, which had not been diagnosticated. She was recovering.

Operation in Tubal Pregnancy Without Evidence of Tumor.—Dr. Hanks presented another specimen removed from a lately married woman who was suffering from symptoms which at first were thought to point to uterine abortion. Since on the third day after the first attack of pain and hemorrhage there was another attack and no ovum escaped, he suspected tubal pregnancy, and Dr. Lusk agreed with him as to the propriety of laparotomy, although no tumor could be distinctly made out. The operation established the correctness of the diagnosis based on the subjective symptoms, for the ovum was found in the tube. The patient did well.

Small Uterine Fibroid Unexpectedly Found to be Pedunculated.—Dr. Hanks also presented this specimen. The patient had been given ergot, etc., for relief of hemorrhage from a fibroid supposed to be single. She returned unimproved, and then examination showed apparently a multilocular tumor in the utero-vesical space, but none of those who had examined the patient had had the least suspicion that it was a pedunculated fibroid, which it proved to be, the pedicle being very small. Dr. Hanks thought the case taught us that it was best to open the abdomen when uterine fibroids were producing symptoms, and do, according to the circumstances, enucleation, removal of the appendages, or hysterectomy—any one of the three procedures being safe at present in the hands of good operators.

Diseased Uterine Appendages.—Dr. Ralph Waldo presented the enlarged and thickened tubes and ovaries removed from a patient that afternoon, and expressed the opinion that the tubes were the seat of malignant tumor, though the chairman believed there were only chronic inflammatory changes. The patient had suffered three years and had borne no children, although she desired them—evidence to him that the bagginess at the sides of the uterus involved the appendages.

Uterine Fibroid.—Dr. Waldo also presented a uterus removed for a fibroid which involved its entire body and which contained a cyst in its centre.

Hæmatoma of the Vulva.—Dr. Grace Peckham Murray related a case of this condition and exhibited a drawing. The paper also contained a brief survey of the sub-

ject, by which it appeared that obstetricians might attend from two to five thousand confinements without meeting with the accident of hæmatoma of the vulva. The case which she related occurred in a primipara, aged thirty-two, who showed prominence of the peripheral venous system, especially of the lower extremities, and during pregnancy was directed to wear elastic stockings. The labor, at term, had been completed without instruments, although, owing to the fact that the perineum had been unyielding and painful, a little chloroform had been used, and there was a slight rupture—not sufficient to call for suture. A few hours later the nurse noticed that a swelling began to form in the left labia which soon increased to the size of an orange. It was tense and glistening. Dr. Murray saw the patient soon after, and the tumor had already begun to subside and had nearly disappeared by the fourth day. Many clots were removed from the vagina and vulva. The treatment had been expectant and antiseptic—frequent douching with bichloride solution. The elastic stockings were taken off soon after the tumor had formed, and it was thought that they might have had some causative influence by producing pelvic stasis. There had been no varicosity of the veins about the vulva beforehand. In treatment, some advocated operative, some non-operative treatment. The author thought one would be guided by the circumstances of the case. In adopting the expectant plan in this instance she had been influenced by experience with a case of large pelvic hæmatocele, which had rapidly disappeared. Much care should be taken to keep the parts aseptic. The mortality in the past seemed to have been about twenty-five per cent. It probably had been greater than it would have been were it not for want of asepsis on the part of midwives and others having charge.

Urinanalysis in Gynecology.—Dr. Howard A. Kelly, of Baltimore, read a paper on this subject. In his opening remarks he said that some present might think he had given too much attention to the subject of albumin in the urine, but it should be remembered that the rank and file of the profession were still alarmed when they found that the urine contained even a small amount of albumin.

In gynecological practice the kidneys were more important than any organ outside the pelvis, for if they were much diseased the patient would not be likely to survive an important operation.

The immediate practical import of renal examination was: 1, that we might refuse to operate where there was advanced renal lesion, thus lessening the mortality list; 2, in less advanced kidney disease one might by suitable diet, bathing, massage, and purgatives, avoidance of alcoholics, and watchfulness throughout convalescence, save life; he had not observed bad effects from the hypodermic use of morphine in these cases when it was called for; 3, we would be led to operate earlier if the condition were one which was liable, if allowed to go on, to lead to renal complication; 4, we would use chloroform instead of ether, although he had not observed ill effects from ether in these cases; 5, one would be more likely to use drainage, as drainage acted as an extra emunctory; 6, one would avoid subjecting these patients to prolonged examination or operation under ether, or any unnecessary delay.

For reliability examinations of catheterized specimens of urine alone should be made. Or if a voided specimen showed albumin, the examination should not be considered complete until the catheterized specimen had also been examined. A slight amount of albumin, though persistent, did not necessarily signify any disease of the kidneys. Nor was the presence of albumin in considerable amount significant in the absence of casts. Albumin was often significant of mild cystic inflammation, as evidenced by a few pus cells; the presence of a few hyaline or small granular casts was not important in the absence of vascular changes and other symptoms indicative of renal disease. Transient glycosuria was occasionally found and was without significance. Diabetes mellitus contraindicated abdominal operations. Albumin found in patients with large tumors often disappeared entirely after operation. Albumin was often found in the urine after pelvic and abdominal operations when it did not exist before. When present before the operation it was apt to show increased quantity after, due apparently to mild cystitis excited by concentrated urine passed after operations. Diminished secretion following operation, even as low as 290 c.c. per diem for three or four days was not unusual, and need cause no alarm as to suppression of urine or of the possibility of having ligated one of the ureters. That was a very practical point, one which had relieved him of a great deal of anxiety. Persistent diminished urinary secretion after operation associated with elevation of the temperature, the pulse becoming more and more rapid, was not a sign of nephritis, but of sepsis. In such cases fatty degeneration of the kidneys would usually be found post mortem. He was sure that, not knowing this fact, operators had often attributed death to kidney disease when peritonitis was the true cause. The same statement held good with reference to fatty heart; after numerous experiments Heller's test for albumin had been returned to in daily work. Trichloracetic acid had been given up on account of its over-sensitiveness.

It was important in all hospital work to have systematic urinary analysis, and to keep records in a chart similar to the one shown. Where repeated analysis was resorted to, the results were noted in a large ward book and the history put into shape for statistical use. Such records had been made in Johns Hopkins in all cases the past four years, so that their statistical value was great. The conclusions just cited were based on exact records of two hundred cases of abdominal operations and on perhaps six hundred more where the records were not as complete.

Dr. Noble, of Philadelphia, read a brief paper in continuation of the discussion. It confirmed Dr. Kelly's observations in almost every particular. In his early career he had had three deaths from suppression of urine following operation, a fact which had impressed him with the important relationship between the kidneys and a successful issue of an operation. Albumin was often present before operation—in his experience in about ten per cent. of all cases. It was not often significant. The urine in the female patient should be drawn by catheter, and if not, the external genitals should be washed before that intended for examination was voided. The pressure of a tumor might cause albumin. Tube casts were not always significant, but when present should receive special consideration. The presence of chronic contracted kidneys was apt to give the surgeon serious trouble, and in such cases albumin was often absent or only occasionally present, and tube casts might be absent. He had operated upon two women whose urine had been examined by a pathologist for over two weeks, with negative results, yet in both patients there were contracted kidneys, and they died. If repeated examinations showed a small amount of albumin, tube casts, and urine of low specific gravity, the surgeon should be on his guard. The prognosis after operation was better in women having fairly large tumors, especially ovarian cysts. In them generally the operation was easy, quick, without sepsis, and after removal of the tumor, and relief from pressure, the patient was apt to secrete even more urine than before. Dr. Noble had also found the urine considerably decreased after operations, and believed it to be a matter of universal observation. The quantity had been about ten ounces the first day, to nineteen on the fourth day.

The Pathological View.—Dr. W. H. Porter thought the significance of a urinary analysis could be best understood by bearing in mind that a healthy individual living in a physiological way would secrete about a given quantity of urine with certain ingredients. Any marked deviation would indicate a pathological condition, and he had long believed that so-called Bright's disease was, in nearly all instances, secondary to trouble elsewhere, more especially to disturbance in the nutritive system, which

caused increased and abnormal work to be done by the kidneys. The nutrition of the kidneys was interfered with, and increased work being added the renal cells underwent retrograde changes, and instead of getting the normal constituents of the urine one found by-products—products indicative of incomplete proteid oxidation. He would say that albumin, when it came from the kidneys, was always indicative of pathological changes of renal protoplasm, and while he did not mean that it indicated a fatal issue, yet it should be considered evidence that there was some abnormal process beyond the kidneys which should be corrected before a more serious state ensued. The more marked degenerative changes were apt to be preceded by the secretion of a small quantity of urine, of high specific gravity, high color, super-acidity, and one should always seek to bring the urine around to its normal quantity and constituents before resortion to an important operation. He had repeatedly seen patients operated upon when secreting scanty urine of high specific gravity, high color, though without albumin or casts, taken to the autopsy table within twenty-four or forty-eight hours, or showing albumin and casts and serious renal symptoms after the operation. His explanation was that the etherization, which implied absence of oxidation, had caused a retrograde change along the whole line of tissue metamorphosis, and granular change of the kidneys, and perhaps of other organs. After relating a case, Dr. Porter again impressed the necessity for bringing the nutritive and secretory organs into line before operating.

The Diagnosis of Masturbation, Uterine Fibroids, etc., by Urinanalysis.—Dr. Charles Heitzman said that as he was known to be a fighter he could not be expected to agree with all that the previous speakers had said. He was surprised to hear a paper on urinanalysis in gynecology which only dealt with albumin and corpuscles in the urine, scarcely mentioning casts, and seeking only to diagnose the condition of the kidneys themselves. One should distinguish between essential albuminuria and albuminuria of kidney disease. With albumin, pus corpuscles, and especially kidney epithelium one could be sure there was a certain amount of so-called Bright's disease. His Philadelphia friend had operated on two cases in which there was atrophied kidney and the patients had died. Was it possible that our microscopic and physical signs could not enable us to make a diagnosis in such cases? Of course the patient would die!

A few casts and albumin were not a contraindication to operating, it was true. Then there were some cases in which but one kidney was diseased. There was a form of kidney disease with little albumin which was a serious form, because it led to cirrhosis of the organ; such cases did not withstand ether well.

But while the kidneys were themselves very important organs, and it was desirable to know their condition as far as it could be determined by examination of the urine, yet urinanalysis should reveal more of the patient's condition. It should and would reveal the constitutional state. Not only that, but by urinanalysis he had diagnosed such conditions as endometritis, masturbation, tumors of the uterus, sarcoma of the kidney, etc. Among the amusing cases related by the speaker was that of a woman whom a friend out of the city was about to marry, but grew suspicious of her virtue, and by a little diplomacy procured through the chambermaid a specimen of her urine, which Dr. Heitzman examined, and diagnosing endometritis, advised him not to marry her. Another related to a specimen of urine from a woman whose husband had lost one arm in the Confederate army. In advising Dr. Kelly to extend his schedule in urinanalysis, Dr. Heitzman expressed fear that Baltimore and Philadelphia were too far away from New York.

The Chairman asked Dr. Kelly a few questions, among them whether the frequency of nephritis in cases of malignant disease might not be explained by the constitutional condition producing the nephritis.

Dr. Kelly made some closing remarks. He had been struck by Dr. Heitzman's wonderful power to make a diagnosis in the cases related, but what had puzzled him most was how he had been able by examining the woman's urine to tell that her husband had only one arm.

A vote of thanks was tendered the gentlemen who had come from distant cities and given the section the benefit of their experience.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

DEBATE IN PARLIAMENT ON ARMY SURGEONS—THEIR GRIEVANCES—"COMBATANTS'" PREJUDICES—THE GYNECOLOGICAL SOCIETY—DISPLACEMENTS, VAGINAL, UTERINE, AND OVARIAN—OPERATIVE TREATMENT—THE LATE DR. ALEXANDER HENRY.

London, July 1, 1893.

Parliament had before it the subject of Army Surgeons last Tuesday, and the medical profession is generally indignant at the tone adopted by some members of the House of Commons. Mr. Hanbury, who led the attack, ridiculed "hankering after military titles," and said we should next have the chaplains demanding military rank and commanding their congregations at church. A fine specimen that of the logic of those professing to despise "non-combatants" who are continually exposed to all the dangers of the service. He wanted to know why the recommendations of the Camperdown committee had not been carried out, and appeared utterly unconscious that the army surgeons would also be glad to know why. Mr. Bartley, too, complained of the cost of the "non-effective service," and thought the War Office must now put its foot down and refuse all concessions to the medical department. Mr. Morton said the medical department cost half a million a year and contained too many ornaments who drew high salaries and did very little work. He was good enough to add that the title of Doctor was higher than Field-marshal, but he did not say if the latter was ornamental and carried good salary with little work! It is true that the opinions of these members will not carry any weight, but their expression in the House was felt to be insulting to hard-working officers. Dr. Farquharson said the pay of army surgeons was not excessive. To get good men a fair price must be paid. The additional year in India which has been imposed on medical officers is a terrible strain. Out of twenty-five sent to India, seventeen died or were invalided, and of the eight survivors two had to be removed to the hills. The military officers can get frequent leave to go to the hills, and can always arrange their work so as to keep out of the heat of the day, while the doctor is at everyone's beck and call at all hours of the day and night. Mr. Jeffreys also spoke sympathetically and urged that in time of war the country needed the best surgeons, and rank ought to be given them, for they were poorly paid compared with what they could earn in civil life. Colonel Lockwood testified to the stress of the doctors' work in India, and said it was so great that the term ought to be shortened. General Goldsworthy spoke in the same sense, and said doctors ought to have extra leave to recruit on the hills. Sir G. Chesney, however, surpassed himself in the ignorance he displayed on the subject on which his prejudices induced him to speak. He declared that army surgeons were in no sense military persons, except as being under the mutiny act, pretty much like nurses. He added they were never required to take part in active operations, and the combatant branch felt degraded by the concessions already made to non-combatants. No doubt Sir G. Chesney may fancy himself degraded as an engineer at any justice done to a doctor, but he does injustice to himself by such absurd statements, just as he did when he pretended that the chief duty of

the senior medical officer in the field was to make poultices. He would sing a different song if he were wounded.

It is some satisfaction to report that the War Minister was much more reasonable, admitted that the medical officers were much more exposed to climatic dangers than the combatants, and intimated that he would do his best to meet every substantial grievance that was brought under his notice.

The British Gynecological Society has put itself much *en evidence* lately. Dr. Leith Napier read a paper giving his experience and a critical review of the operative treatment of vaginal, uterine, and ovarian displacements. His paper excluded minor proceedings and referred only to those in which important operations were proper. Vaginal displacements were usually associated with deficiency of perineum and might give rise to cystocele or rectocele or both. For rectocele, the operation required was mostly colpo-perineorrhaphy. For cystocele he has modified the plan of Stoltz, removing a circular piece of mucous membrane and passing a purse-string suture around so as to obliterate the raw surface. This proceeding should be combined with that of Hegar, Martin, or Doléris when both rectocele and cystocele are present.

For uterine displacements various plans have been tried. Anteflexions should be treated by bougies if stenosis were present, and by biconical amputation of cervix when that is hypertrophied, circular amputation being apt to cause undue contraction. Retroflexion and prolapse can be met with vaginal or abdominal operation. The author recommended the latter. The extra-peritoneal procedures he discarded and of the intra- he preferred direct fixation and adopted a modification of Ferrier's plan and described the operation in detail. The results were satisfactory in thirteen or fourteen cases, and fifteen cases of successful parturition following ventro-fixation had been recorded or were known to him. For ovarian displacements suspending the uterus was advised. To remove the ovary, if displaced but healthy, he regarded as a surgical crime.

In the discussion on this paper Dr. Phillips thought the mode of ventro-fixation described was the best, but would like to hear the results, as he considered the patient ought to remain well for three years before being pronounced cured. Dr. Heywood Smith said he had done Stoltz's operation for the first time in England, and Professor Stoltz was himself present. Dr. Routh said enough stress had not been laid on the hypertrophy of the vaginal mucous membrane in many cases of prolapse, and many cases were cured by attention to this condition. Mr. Spanton said many cases of prolapse were due to the weight of the uterus, but others to laxity of the vaginal walls. For a heavy uterus with weak ligaments he approved of ventro-fixation, but if the vaginal walls were lax they should first be dealt with. He had had no fatality in vaginal operations. He thought one fatal case in fourteen condemned any operation for prolapse. As to the ovary, he thought if healthy it would not prolapse, but to remove a prolapsed ovary, even if healthy, entailed less risk than ventro-fixation of the uterus. Dr. Schacht thought the risks of the operation of ventro-fixation were only those of complications, the operation itself was no more risky than removing a simple cyst of the ovary. Dr. Travers gave details of the fatal case mentioned in the paper. Death came on with pyæmic symptoms after the patient had done well for a time. At the autopsy no mischief was found in the abdomen and the uterus was well fixed. In his reply, Dr. Napier referred to Badouin's work on hysteropexy, in which three hundred cases were tabulated with only one or two deaths. He preferred the operation with its risks to leaving the cases unrelieved and a reproach to gynecologists.

Dr. Alexander Henry died on the 24th ult. He was a very learned, modest, retiring, and taciturn man. He was also a notable linguist. For thirty-four years he laid his remarkable gifts and prodigious industry on the altar of the British Medical Association. All this time he was content to occupy the position of sub-editor of the Association's journal, although his learning and sagacity probably surpassed that of all the rest of the staff combined. But his modesty and shyness were not calculated to push him forward, and while colleagues appeared to make wealth from less work he toiled quietly on and died comparatively poor.

MEDICAL ASPECTS OF THE WORLD'S FAIR.

(From Our Special Correspondent.)

The Hospital Exhibit properly commences with the Emergency Hospital of the Medical Bureau, which, however, was not intended as an exhibit. Here may be seen modern appliances, used in a modern way, by modern men. Dr. John E. Owens, Professor of Surgery in the Northwestern University Medical School, is the Medical Director. There are four Attending Surgeons, two Resident Surgeons, and a Superintendent of Ambulance Service. All are mature men, specially qualified for their positions by previous experience. One attending surgeon, generally two, and sometimes three, and one resident surgeon, are constantly on duty in the hospital. There is a druggist, a superintendent of nurses, ten trained nurses, and four orderlies.

The hospital is situated in the southeast corner of the Service Building, with an entrance from the courtyard of that building, and near the Sixty-second Street entrance to the grounds. It contains thirty-nine beds, besides many rattan cots, which serve in most cases more satisfactorily than the regular beds.

The beds are of the latest pattern for hospital service. In one of the male wards is a cage-bed for delirious patients. It consists of a cage of woven wire placed over an ordinary iron cot-bed and securely fastened to it. The wire is of such strength that it cannot be bent by the patient; and the arch of the cage is so low that the patient can neither sit up nor do himself harm.

The operating-room has a tile floor and is furnished with glass tables, instrument-cases, and appliance for aseptic work, many of the instruments and fittings being supplied by Truax, Greene & Co. In an adjoining room such dressings are done as might endanger the purity of this room.

The ambulance department is in the hands of Dr. Gentles, who has one sergeant, fifteen ambulance men, and five drivers. The ambulance men are physicians, medical students, or others that have had previous ambulance service. There are one hundred and fifty ambulance call-boxes in the various buildings and about the grounds. The guard reports all cases of emergency and remains at the box to guide the ambulance, as in case of fire or police call. One hundred and fifty stretchers are distributed about the various buildings. There are four ambulances, two furnished by the Abbot-Downing Co., and two by Studebaker Bros. Each ambulance is furnished with a folding-stretcher, padded bed, blankets, a large canvas bag containing the following: Gauze, sponges, basin, Esmarch's bandage, water, roller bandages, oil for burns, carbolized vaseline, Esmarch's tourniquet, antiseptic tablets, medicine glass, safety-pins, chloroform, nitrite of amyl pearls, aromatic spirits of ammonia, dressing splints, scissors, and a hypodermic case with solution of digitalin, ether, nitroglycerine, morphia, atropia, and apomorphia. One ambulance is stationed at the hospital, one near the Terminal Railway Station, one near the Stock Pavilion, and one near the east end of the Midway Plaisance, near which is a Tollet portable hospital tent which relieves the pressure on the Emergency Hospital.

The nurses are under the charge of Miss M. R. Brown, a graduate of St. Luke's Training School, of Chicago. The ten nurses are from the various hospitals and training schools in this country and Europe. Each nurse is on duty eight hours and off duty sixteen hours, and serves for one month.

There are three sanitary inspectors, whose duty it is to daily inspect every nook and corner of the grounds, and report upon the condition of the same.

The amount of work done by this hospital staff may be learned from the following record. In the "Construction Period," August, 1891, to May 1, 1893, there were:

New cases, medical	2,555
New cases, surgical	3,364
Readmitted, medical	2,738
Readmitted, surgical	3,196
Making a total of	11,853

Of these only 32 are known to have died. In addition to this, 5,370 candidates for Columbian Guards were examined.

During the "Exposition Period," May 1st, to July 1st, there have been:

	May.	June.
New cases, medical	988	1,137
New cases, surgical	489	498
Readmitted, medical	474	533
Readmitted, surgical	670	798
	2,621	2,966

	May.	June.
Number of males	2,509	2,577
Number of females	112	389
In-patients, male	104	106
In-patients, female	35	237
Ambulance calls	315	406
Deaths	4	7
Daily average of cases	$84\frac{54}{100}$	$98\frac{86}{100}$
Guards examined	1,072	293

By "In-patients" are meant those that are for any reason put in bed. None are kept over night. Such as cannot walk away are removed in carriages or by ambulance to their homes or other of the city hospitals, generally to St. Luke's. No meals are served in the hospital for either patients or staff, but in the diet kitchen the nurses prepare soups, teas, and refreshing and stimulating delicacies.

The Homœopathic Headquarters and Hospital is a neat building back, or west of, the Woman's Building. It has recently been completed and may be said to be under the special patronage of President Higginbotham. Some indeed have doubted if the regular profession would have control of the Emergency Hospital had Mr. Higginbotham been in control from the beginning. The building is two stories, with offices, reception rooms, operating-room, and drug exhibit on the main floor; on the second floor are the rooms for patients and nurses. Twelve medical gentlemen, who were chiefly responsible for the building of the headquarters and hospital, make up the attending staff; their positions, however, are chiefly honorary, and their duty seems mainly to consist in having their names inscribed on a tablet on the wall at the entrance. The real work of the hospital is done by Dr. M. R. Baker, House Surgeon, and Dr. Lincoln S. Brown, House Physician.

There are two trained nurses constantly in attendance. At the time of my visit there were two male and two female patients in the hospital. The exhibit of drugs, bags, and cabinets, supplied by the manufacturers, and of instruments and supplies for the operating room from a like source, is very complete and interesting. There is provision for the care of twenty patients; but few find their way there since no ambulance is attached and patients are only taken there by the regular ambulances when they specially request it.

The Woman Physician and Training Schools for the nurses in Illinois have their exhibit in a special building somewhat to the south of that last mentioned.

In the building there is a model operating-room with all appliances; a model diet-kitchen fully equipped for hospital necessities; a model office and reception-room; a section of a child's ward; a section of a woman's ward; and a private room for all patients. In the latter every comfort and convenience will be found, and care will be given to any woman or children who may desire to apply for medical services, or who may be brought to the hospital. All three schools of medicine are represented in the attending physicians: a resident physician of each school being appointed for daily service. Volunteer physicians from each school of medicine are also in attendance for varying periods during the continuance of the Fair. A head-nurse also is constantly in the building, and every training school in the State will be represented at some time during the six months through one or more of their graduates, who will serve likewise for varying periods as circumstances may require.

The Visiting-nurse Association, which is one of the finest and most philanthropical enterprises in the city, and one of the results of the perfection to which the service of trained nurses has been brought, will also have a representation in this hospital building, and the attendant will explain to all those desiring it their system of work among the poor of the city.

The exhibit of instruments and operating-room supplies, as well as many of the other furnishings, are supplied by the manufacturers. Special attention should be called to Reeves's spinal head-rest—for beds. It is simple, easily arranged, adjustable to any angle, and composed entirely of metal. There is an interesting exhibit of the uniforms of nurses of the various schools in the State.

On the second floor of the Woman's Building will be found the British Nursing Section, containing an exhibit of nurses' costumes of Great Britain and her colonies, with china, glass, infant clothing, hygienic clothing, health corsets, bandages, splints, and beds. There is a trunk for the use of the private nurse that is worthy of the highest commendation.

In the Educational Section of the same building, on the main floor, will be found the exhibit of the New York and Brooklyn Training Schools, containing much that has already been mentioned as part of a nurses' exhibit, the exhibit of nurses' uniforms of the different schools, dressing baskets and bags, and a miniature model hospital ward is very complete.

Just to the southwest of the Woman's Building will be found the Children's Building. Here the Fitch Crèche and Training School for Nursery Maids makes a very practical exhibit in the daily care of ninety children of the visitors to the Fair. Ten nurses are in constant attendance. For twenty-five cents any child between the ages of four weeks and six years can be checked in the morning, and will be fed, cared for, and clothed, if necessary, and delivered on presentation of the check in the evening. It is an experience well worth the price, to fumble a brass check in one's pocket, and know that it represents a hot, tired, and crying infant. The rooms of the nursery contain model bassinettes and cribs, swings, and all manner of nursery furniture. In the centre of the room for the younger children is the "Pound," consisting of a movable fence just high enough to keep the little toddlers within bounds. Near the window is another convenient contrivance, consisting of a padded bottom, or floor piece, about three by five feet, and about two feet above this an oblong wooden frame, the two being connected with stout cord netting, and the whole swinging from a framework. Such a swing basket makes a safe and comfortable home for children and toys.

The Medical Section of the Government Exhibit, in charge of Captain Louis A. La Garde, Assistant Surgeon, will be found principally in the Army Hospital, which is an eighteen-bed structure, built in accordance with the plans and specifications furnished by the Surgeon-General of the United States Army. The plan is one of the recognized ones for a Post Hospital, and in the arrangement of the ward, dispensary, storeroom, offices, etc., it differs but little from a permanent Hospital Army Post.

The ward is not fitted up for patients, however, as it is not intended to treat patients there. The space in the ward is to be devoted (1) to the display of two hospital beds to show the pattern of bunk and the bedding in use in army hospitals; (2) models to show the evolution in hospital construction in the medical department of the

army; (3) models of hospital steam vessels and hospital cars; (4) a number of wet and dry preparations illustrating pathological lesions of various kinds; (5) about three hundred bromide enlargements and transparencies, illustrating the various histological and pathological tissues of the body; (6) a series of eighty consecutive sections of human embryos, illustrating the form and structure of osseous tissues; (7) ten series of consecutive sections of human embryos, illustrating the anatomy of various portions of the body; (8) a collection of microscopes illustrating the evolution of the instrument; (9) a collection of deformed leaden bullets, gathered from cases during the War of the Rebellion; (10) a collection of specimens showing bony lesions of gunshot injuries from the same source; (11) a collection of specimens showing the difference in destructive effects upon bones between the leaden projectile of the 0.45 calibre Springfield rifle, and the German silver nantle projectile of the 0.30 calibre experimental rifle.

The dispensary contains a full outfit of drugs, dressings, etc., and the store-room contains supplies for one hundred men for one year. The post surgeon's office contains a collection of medical books and periodicals as per Standard Supply-table of the Medical Department.

Two of the rooms upstairs are used as office and reception-room, and the space in the other rooms is devoted to the use of a Clinical Laboratory.

In this department is shown a number of thermostats in operation, a collection of such cultures as particularly interest the general practitioner, the method of preparing media of various kinds, methods of staining bacteria in and out of tissues, the drying of blood on cover slips, and the staining of the same by the Biordi-Erlich method, to show the difference between anæmias and leukæmias. There is also shown methods of hardening tissues and the cutting of section by the microtome, as well as the more common methods of staining and mounting sections for the examinations under the microscope. For the supervision of this department the services of Dr. W. M. Gray, of the Army Medical Museum, and Dr. Meade Bolton, of the Johns Hopkins Hospital have been secured.

In two framed hospital tents near the hospital are exhibited models showing the evolution in the transportation of the sick and wounded in time of war.

There is exhibited, adjoining the post hospital, a field hospital of twenty-four beds under the charge of First Lieutenant G. D. Deshon, Assistant Surgeon. One of the chief features in this display is a contingent of the Hospital Corps from Fort Riley, illustrating the ambulance service, litter drills, and methods of rendering first aid to the wounded, etc

Although the exhibits of the Medical Department of the Army will be of special interest to medical officers in general, no medical man should visit the grounds without spending as much time as possible studying this department.

HIGH FEES AND LOW FEES.

To the Editor of the Medical Record.

Sir: I see that in your issue of June 24th you refer to the high fees of the doctors in the "Mackay case." I have been thinking for some time of discussing the subject in the newspapers, but your editorial suggests it might be better, perhaps, that it be first considered in a medical journal. It is of interest both to the medical profession and the public. I shall be as brief as possible.

A clothier can only give a man so much for making a coat because he can only sell the coat for so much. A farmer can only give a laborer so much per foot for the ditch dug because the land is only worth so much to him for cultivation. So in these and similar cases there is necessarily a fixed limit to the value of the work done. In medicine and in law there are at least two limits, to wit: The value of the work done and the ability to pay. But the value of the service and the ability to pay have no real connection the one with the other. The poor man's life and health are as dear to him as the rich man's, so the value of the work done is the same. We adopted a tariff of fees from necessity. As most people are poor, the tariff is low. There were no millionaires when it was made. If the ability to pay was the only guide, the schedule would be a long one. If we charge the poor man $2 for a visit, the millionaire should be charged $100. But in almost all transactions the first question to be considered before settlement is the value of services performed. Unfortunately, men seem to lose sight of the value of medical services except in extraordinary cases, such as the saving of life by a surgical operation. Yet there is, or can be, no enjoyment of life without health; hence its inestimable value. Lawyers get their fees secured before they begin work. This is impossible to the doctor, for obvious reasons. The lawyer's fees are also far higher than the doctor's, though he does less work ordinarily. Juries should be very careful how they set aside the doctor's fees. A physician does more charity in one week than a lawyer in a year. The public owes the former much, the latter nothing.

The fees of Mackay's doctors were $5,000 and $7,500; they are considered enormous by some people, and yet lawyers get $10,000, $20,000, and $30,000 fees when less than life is involved. As a class the latter are not as well educated as the former. Were Mr. Mackay shipwrecked and he called upon a good swimmer to save him, and he did it, would $10,000 be too much pay, though it took the rescuer only ten minutes to do the work? We think not. "A man will give all that he hath for his life." It is impossible often to express in money the value of medical services; hence it was once the custom, on the part of men of wealth especially, to give the doctor what is known as an "honorarium," something beyond the fee charged, as an expression of the patient's higher obligation. This was a beautiful custom which has fallen, in the Southern States, into sad decay. There may be a mere mercenary service in medicine, or a high honorable devotion to duty and humanity that loses sight of all pecuniary reward; its motive-power is pure love. Sometimes the doctor's work is heroic. Like a mother's love, we can't find its value. Every man dies a debtor to his mother, and thousands die debtors to their doctors, though the "fee" is paid. Furthermore, the value of the physician's work cannot be estimated, like that of the mechanic. The doctor's knowledge is cumulative. A man with five years' experience may make as good a plough or locomotive as one with twenty years' experience. He only requires a certain amount of mechanical skill of a certain sort. But a doctor with twenty years' experience brings an immense mass of information got from hundreds and thousands of cases. He pours out upon this one case all his careful observations derived from all his cases of a like character, together with the knowledge he has got from books, indeed all his mental wealth. Neither can he disassociate this one disease from the healthful action of the entire system.

No account is taken by the public of the painful sympathy and dreadful anxiety suffered by the doctor in the practice of his art. There is no such strain in mechanical work. He suffers with his patient. He is often miserable on this account. The patient is in his dreams as well as in his waking thoughts. He is often an old and dear friend, a man or woman invaluable in the family and in the community. The doctor's reputation is also at stake. To him all hearts turn in anxious solicitude. It is often intensely painful. I knew an excellent doctor once to flee from this anxiety; he gave up the case rather than endure it. Sometimes the physician has to endure the distress of want of confidence in the patient's friends. The heaviest sorrow borne by the Great Physician was the want of appreciation of his followers. Another mortifying thing in a doctor's life is the reluctance of men to pay their bills, though abundantly able to do so; it must be itemized. Some keep account of your visits, and rebates are asked for, low as the fees are. The love of money in some men seems to

kill out all gratitude, as I showed in my "Forty Years a Doctor." I do not think I am writing from a doctor's stand-point. When I was eighteen years of age I saw that money could not discharge a less obligation than those of a sick man to a kind and faithful doctor. When I left the Academy I said to the Principal, and I was perfectly sincere, as I handed him my father's check for my tuition, "Sir, this is a small expression of my obligation for your valuable services to me." I remember he seemed much surprised.

The public need instructing on this point. How few physicians, after thirty or forty years of hard work, get rich. The great multitude die poor. This is a proof that the fees are not high. The man who does get rich pays a high price for it; he has little rest day or night, and no Sabbath-day to calm his tired and troubled spirit. Few doctors make their sons physicians; they would shield them from a life of toil and hardships. In the South few are able from their practice alone to give their children first-class educations. W. W. PARKER, M.D.

RICHMOND, VA.

New Instruments.

IMPROVED METHOD FOR RELIEF OF SYMBLEPHARON.

BY CHARLES S. RODMAN, M.D.,

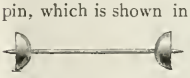
WATERBURY, CONN.

ADHESION of the eyelid to the globe is considered to be the inevitable sequel of severe conjunctival ulceration as occasioned by burns from lime and the stronger mineral acids. It is the lower lid usually that is involved. Quoting from one of the most recent and complete of ophthalmic treatises, "Nothing can prevent the formation of attachments in case the burn is deep, as the resulting ulcer slowly granulates and contracts" (Noyes, p. 266). After ultimate contraction is reached the deformity, if of any great degree, is rarely cured. Many expedients have been proposed, *e.g.*, shields of lead, glass shells, plastic operations, as those of Arlt and Knapp, as well as the transplantation of mucous membrane. Whatever success may have been sometimes attained by skilful operators, it is safe to say that no method has hitherto been made known so simple and effective as to commend itself for general adoption.

Within the past year it has been my misfortune to see several cases of symblepharon, more at least than often tax the patience, if not the skill and mechanical ingenuity of one not connected with large ophthalmic dispensaries; of these, two were treated as often recommended, by passing a gold wire through the base of the connecting tissue, the ends being drawn out of the conjunctival sac, with the intention of forming a lined channel and afterward dissecting the lid from the globe. No great success was attained in this way; in common language the wire worked out, new tissue developed beneath it, while absorption occurred above, making the ultimate effect less than desired. In another case characterized by adhesion of the temporal half of the lower lid and much narrowing of the palpebral opening, a pointed gold wire was pushed from within the lid beneath the attachment, emerging through the integument nearly half an inch from the external canthus. The point was cut off, the wire bent into a ring, and the ends soldered. This ring was worn many weeks with ultimate result much as in the cases previously cited. In all, the deformity was of long standing, and the patients were gratified with a slight improvement.

A few months ago a symblepharon formed almost under my observation. Freshly made mortar was thrown into a man's eye by a fellow-laborer. He came to me, first, a few days after the injury, was under treatment at the Waterbury Hospital until able to work, perhaps a month, then disappeared, and about three months later applied for relief. At this time more than half of the right lower lid was adherent to the globe, new tissue encroaching upon the cornea nearly to the pupillary centre. After dissecting these recent attachments from the globe, I apprehended their reproduction from the extent of the deformity and the small size of the eye with limited amount of healthy conjunctiva to draw upon in covering the corneal wound. Having at hand no convenient rabbit, or individual with superfluous oral or vaginal mucous membrane, a modification of the method attempted in the cases first mentioned occurred to me, which has proved easy and satisfactory.

Guided by Georgen & Hahn, opticians, I obtained from a maker of diamond settings a double-pointed gold pin, which is shown in the cut. It is of 18 carat gold, a



little more than half an inch long, of the calibre used in solitaire settings for the ears, and, like these ornaments, provided with saucer shaped nuts, a thread being cut near each end for three sixteenths of an inch. The smooth central portion is three-quarters of an inch long; the ends are needle-pointed. Having taken off the nuts, the pin is grasped with a strong carrier and pushed from within the lid until the point emerges through the integument below the outer canthus. It is drawn out with forceps, then taken with the carrier and again pushed from within the lid when the other point appears under the inferior punctum lacrymale. Finally, the nuts are put on and turned, slightly compressing the lid, the shaft of the pin lying in and gently pressing against the fornix.

The photograph, taken one month after the pin was inserted, shows this little device *in situ*. It is worn without discomfort or irritation. It cannot work out; adhesions do not occur above the central portion, which is posterior to the lid. A simpler form may suffice, but as made for me it is very convenient and can be used repeatedly. By any one to whom a trial of the method which I have found successful may commend itself, it is obtainable of Georgen & Hahn, 26 East Twenty-third Street, New York.

The Diagnostic Value of Subclavicular Palpation.—Dr. Hottenier calls attention to the value, from a diagnostic point of view, of bimanual palpation of the upper part of the chest. A congestive process limited to the apex may not be distinguishable at its commencement by percussion and auscultation. In such a case Dr. Hottenier recommends the following manœuvre: While one hand is applied over the subclavicular region and the other is maintained over the corresponding scapula, the to-and-fro respiratory movements are followed by the two hands and a moderate degree of pressure is exercised by the pulp of the fingers in front during inspiration. Should no pain be thus elicited, no appreciable lesion of that apex exists. Should the patient, on the contrary, complain of pain, it is a proof that congestion is present.—*Lancet.*

The Pliny Cure for Inebriety.—Dr. Robertson says, in the *Pacific Medical Journal*, "I will match Keeley's secret as regards remedial value and scientific acumen with one I recently found in the 1601 edition of Philemon Holland's translation of Pliny: "For to avoid drunkenesse, take the lungs of an hog, be it bore or sow, it matters not, in like manner of a kid, and rost it; whosoever eateth thereof fasting shall not be drunk that day how liberally soever he take his drinke."

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending July 15, 1893.

	Cases.	Deaths.
Typhus fever	6	3
Typhoid fever	21	5
Scarlet fever	67	7
Cerebro-spinal meningitis	4	7
Measles	216	6
Diphtheria	125	32
Small-pox	3	0
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

The Esteem of One's Fellows.—In the course of the Croonian Lecture, delivered recently by Virchow, he says: "Who of us is not in need of friendly encouragement in the changing events of life? True happiness is not based on the appreciation of others, but on the consciousness of one's own honest labor. How otherwise should we hold our ground in the midst of the turmoil of the day? How should we preserve the hope of progress and of final victory against the attacks of opponents and the insults which are spared to no one who comes before the public? He who during a long and busy life is exposed to public opinion certainly learns to bear unjust criticism with equanimity; but this comes only through the confidence that our cause is the best, and that some day it must triumph. Such is our hope in our wrestlings for progress in science and art; such is our hope in our struggles for civil and religious liberty, and in this hope we gradually become hardened against malicious attacks. It is a kind of immunization which, I acknowledge, has also great drawbacks, for this hardening toward unjust attacks leads very easily to a similar indifference toward just attacks, and, owing to the tendency to contradiction rooted in the nature of human thought, it finally leads also to indifference to praise and recognition. One withdraws again and again into one's self, discontented with the world and with one's self also; but who can so completely retire within himself that the consciousness of the insufficiency of human thought, and that the criticisms of opponents are justified, cannot break through the crust of even the most hardened self-consciousness? Happy is he who has courage enough to keep up or regain his connections with other men, and to take part in the common work. Thrice happy he who does not lack in this work the flattering commendation of esteemed colleagues."

Inversion of the Uterus in a Woman of Seventy-eight.—Dr. Schauta records the following case: The patient, seventy-eight years of age, had noticed for more than a year that a tumor protruded from her vulva. At first it was small in size and disappeared during the night, later she had to replace it herself, and she had suffered from pains in the back and abdomen, and from a red vaginal discharge. There had also been some difficulty in micturition. She had had one child when twenty years old, and the menopause had occurred when she was forty-eight. The vulvar tumor was found to consist of a completely inverted uterus with a fibroid attached to it. The openings of the Fallopian tubes were clearly seen. The myoma was removed in the hope that then a pessary and tampons might keep the uterus in position; but these means failing, the uterus also was removed. The causes of the inversion, according to the author, were the presence of the myoma in utero, the fact that the woman had to stand for many hours daily, chronic constipation, and the atrophic state of the uterus and the inflammatory infiltration of its walls.—*Archiv für Gynaekologie.*

The Practice of Medicine is Easy in Connecticut.—The Secretary of the State Board of Health of Connecticut, in reply to an inquiry from an applicant, writes:

"Sir: Anybody can practise medicine in Connecticut. You do not need to register; you do not need a medical diploma; you do not need to know the difference between opium and peppermint—you do not, indeed, need to know anything. You can simply come and live here and begin to practise. The laws of Connecticut will sustain you in collecting your fees for professional services, if you render any which you choose to call such. But if you undertake to carry me or my trunk to the depot for pay, you must get a license. If you peddle matches or peanuts, you must get a license. If you collect the swill from your neighbors, to feed your pigs, you must get a license. If you want to empty your cesspool, you must get a license. But you can practise medicine in Connecticut *without a license.*"

Proper Pride.—Ghys, the tramp who enjoys the distinction of having imported typhus fever into Paris, was recently condemned to a fortnight's imprisonment—not for having accomplished this insanitary feat, but for having mistaken somebody else's property for his own. The following dialogue between the accused and the judge is curious reading: Prisoner: "Je venais de Lille. J'étais très malade, j'avais besoin d'argent pour me soigner." Judge: "Quelle maladie aviez-vous?" Prisoner (proudly): "Le typhus! C'est moi qui l'ai apporté au Dépôt à Paris." To what lengths will the rage for distinction lead?—*Lancet.*

The Forms of Diabetes.—Dr. George Harley gives the following classification of diabetes: 1. Hepatic diabetes—including the gouty variety. 2. Cerebral diabetes—including all cases of saccharine urine arising from nerve derangements. 3. Pancreatic diabetes—the most deadly form of the disease. 4. Hereditary diabetes—a form by no means uncommon, and one, too, where both brothers and sisters may labor under the disease without either their maternal or paternal parent having been affected by diabetes, though more distant members of the family may have suffered from it. 5. Food diabetes—including all forms of saccharine urine arising from the ingestion of unwholesome substances. In the matter of treatment, besides diet and opium or codeine, Dr. Harley recommends croton chloral, strychnine, phosphoric acid for thirst, and an absolute prohibition of alcohol.

Meat Eating and Bad Temper.—One deplorable result of excessive meat eating is the ill-temper which is said to be a chronic complaint in England. "In no country," declares Mrs. Ernest Hart in the *Hospital*, "is home rendered so unhappy and life made so miserable by the ill-temper of those who are obliged to live together as in England. If we compare domestic life and manners in England with those of other countries where meat does not form such an integral article of diet, a notable improvement will be remarked. In less meat-eating France urbanity is the rule of the home; in fish- and rice-eating Japan harsh words are unknown, and an exquisite politeness to one another prevails even among the children who play together in the streets. In Japan I never heard rude, angry words spoken by any but Englishmen. I am strongly of opinion that the ill-temper of the English is caused in a great measure by a too abundant meat dietary, combined with a sedentary life. The half-oxidized products of albumin circulating in the blood produce both mental and moral disturbances. Brain-workers should live sparingly if they would work well and live long. Their force is required for mental exertion, and should not be expended on the task of digestion, for 'they should remember that the digestion of heavy meals involves a great expenditure of nerve-force.' The healthful thing to do is to lead an active and unselfish life, on a moderate diet, sufficient to maintain strength and not increase weight."

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Original Articles.

THE STRONGLY COUNTER-IRRITANT EFFECTS OF THE USUAL MASTOID OPERATION.[1]

By ALBERT H. BUCK, M.D.,

NEW YORK.

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THE main object kept before the mind of the surgeon in opening into the mastoid process is the establishment of a free channel between the outer world and the centre of disease, which latter, in most instances, is situated either in some part of the middle ear or in the mastoid bone itself. Through this channel the products of inflammation find a much easier way of escape than by any route that nature may establish through ulcerative action, and through it, besides, the surgeon is able to introduce such remedial or mere cleansing fluids as he may think likely to exert a curative effect. But in certain cases, and they are by no means rare, the good effects of the operation are not confined to the benefits directly attributable to good drainage and thorough cleansing of the parts; the derivative or counter-irritant influence of the operation plays, I believe, a very important part in effecting a cure of these cases, and it is for the purpose of directing attention to this point that I have prepared the present paper.

Setons and issues were looked upon as valuable therapeutic agents even so recently as twenty-five years ago, but nowadays one scarcely ever hears them mentioned. In operating upon the mastoid we may establish an issue on a comparatively large scale. A gaping wound, two or three inches in length, is made in the skin, and a pit large enough to admit the end of the forefinger is excavated in the underlying bone itself. This deep excavation may be left gaping, and afterward, for a time at least, be treated as an open wound. When this course is adopted, we have all the essential conditions of a large issue; and if there be any virtue in the principle of counter-irritation, the beneficial effects that flow from it will be provided in liberal measure to the patient thus operated upon. On the other hand, if the edges of this gaping wound are stitched together in accurate coaptation, only a small outlet for the discharge being left at the lower angle; and then, if, in addition, such dressings are applied that no micro-organisms can by any possibility find an entrance into the wound, our patient will certainly be deprived in large measure, if not wholly, of whatever good effects counter-irritation is competent to supply. In the majority of cases, as I have already intimated, the disease will be cured without the aid of such additional counter-irritation, but in those cases in which the disease of the ear has set up more or less active intracranial inflammation, this counter-irritant power may be sufficient to turn the scale from a fatal to a favorable issue.

While I cannot hope to furnish from my case-book convincing proofs of the correctness of this doctrine, I believe that the histories of the following three cases will go far toward establishing its soundness:

CASE I.—The patient, a vigorous man, about thirty-eight years of age, consulted me in March, 1890, for the relief of a discharge from the left ear, of at least thirty years' standing. Aside from the discharge and some impairment of the hearing, the ear, he said, had given him no trouble until within a few days, when a certain amount of bleeding became associated with the discharge, and had continued since. On examination I found the left external auditory canal filled with a large and very vascular polypoid growth. I removed it with the snare and found that it sprang from what was left of the drum membrane, in the neighborhood of the hammer. I recommended the daiiy use of Angelo's ear-douche, and under this *régime* the ear gave him no further trouble during the subsequent three years.

On April 15th or 16th of the present year, he sat at an open window, with a current of air blowing upon the left side of the head. Soon afterward the ear became painful, and the pain continued to increase steadily until the 18th, when he called upon me to obtain relief. On examination I found that the upper cutaneous wall of the left external auditory canal was markedly prolapsed. There was a scanty, rather thin, pinkish, foul-smelling, discharge in the canal. The body-temperature was 103° F., and the pulse 102. The pain was referred to the deeper parts of the ear, and to the whole left side of the head. There was no tenderness over the mastoid region.

The treatment adopted, and carried out by my associate, Dr. Robert Lewis, was the following: A free, curving incision was made across the cutaneous wall of the canal at the point of greatest prolapse, and through this opening a slightly curved silver cannula was introduced. Through this a stream of a 1 to 4,000 bichloride of mercury solution was forced by air pressure generated through the instrumentality of a rubber foot-bag. This irrigation brought away an appreciable quantity of foul, cheesy material; the stream apparently escaping directly from the middle ear. Three leeches were also applied behind and below the ear, as close as possible to the auricle; and the patient was instructed to have hot flax-seed poultices applied continuously for three hours. Internally, he was given one grain of calomel, to be followed, the next morning early, by a full dose of Rubinat Condal water.

On April 19th the patient was found to have less pain, and the temperature had fallen to 102° F. The probe, passed through the opening in the prolapsed portion of the wall of the canal, encountered everywhere roughened bone. Dr. Lewis therefore attempted, by passing a small-sized Volkmann's spoon (bowl = 3 mm. in diameter) through the artificial opening, to gnaw away so much of the intervening ridge of bone—presumably carious—that the stream of water from his cannula would play directly upon the contents of the antrum. In this he apparently succeeded, for in the subsequent washing he drove out considerable quantities of foul, cheesy material.

During the next two or three days all the local symptoms improved greatly. The discharge almost entirely lost its foul odor, the prolapsed wall of the canal returned to its natural position, the temperature and pulse became nearly normal, and the pain had very decidedly diminished in severity. The appetite, however, did not return, and the patient showed no desire to leave his bed. His tongue also remained heavily coated. The urine had been examined by his regular medical attendant, Dr. Samuel K. Lyon, and found to be normal.

On April 25th the temperature again rose to 103° F., and the patient seemed to have passed into a state of semi-stupor. As the ear had improved so markedly, it was thought that there might be a malarial element underlying the rise in temperature and the mental hebetude.

[1] Read before the American Otological Society, at its meeting in New London, Conn., July 18, 1893.

Accordingly quinine was administered in divided doses until he had taken, during the twenty-four hours, twenty grains. An ice-cap was also kept constantly applied to his head. These measures produced no perceptible effect upon either the temperature or the drowsiness, and at the suggestion of his physician he was given two doses (about four hours apart the one from the other) of the hydro-bromide of hyoscine, $\frac{1}{120}$ grain in each dose. This was on April 26th.

On April 27th the patient was found to be greatly improved in every way. The temperature had fallen to normal. The drowsiness had disappeared, the dusky color of his face had changed to a natural ruddy hue. His eyes were bright. He asked for food. In a word, he seemed at last to be on the high road to getting well.

The visible parts of the ear having shown no signs of inflammatory action for at least three or four days, and apparently not requiring any other treatment than the frequent use of the warm douche with a very weak sublimate solution, the patient was left in the charge of his regular attendant.

As we afterward learned, the improvement noted above lasted only about twenty-four hours. The fever and drowsiness then returned, the right side of the body became paralyzed, and the patient died on the third or fourth day after we had last seen him.

This case is brought forward on account of the indirect testimony which it furnishes of the correctness of the statement that in those cases where the ear disease has already set up a certain amount of inflammation at the base of the brain, it is not sufficient to thoroughly drain and cleanse the original seat of the disease in the ear. Something more potent is required to bring about a subsidence of the deeper-seated inflammation, and this is to be found, I believe, in the counter-irritation furnished by the usual mastoid operation. In direct confirmation of this belief I will give the details of a second case in which the local conditions of disease in the ear were very much the same as those noted in Case I., while the evidences of intracranial disease, at the time of the operation, were more pronounced. In fact, there was already well-marked paralysis on the opposite side of the body, and yet the patient recovered.

Case II.—The patient, a man twenty-two years of age, and of good general health, consulted me at my office, on January 7, 1893, on account of long-standing trouble in the left ear. He gave the following history: There had been a discharge from the left ear since childhood, and on several occasions he had experienced pain in the ear, lasting perhaps for two or three days and then passing off. The last of these attacks had occurred during the previous November and had been of unusual severity. From that time to the present he had experienced a great deal of dizziness, and at times he had felt decidedly chilly, without having, however, a distinct chill. At other times he had felt feverish. The discharge, during this period, had remained unchanged in quantity, but from time to time he had found it streaked with blood. His general health had deteriorated appreciably during this period, and he had lost flesh to the extent of twenty pounds. Quite recently there had developed a new symptom which had given his family some alarm. I refer to the sensation observed on the right side of walking on cushions. His gait, too, had become somewhat unsteady, through his inability to perfectly control the motions of the right leg.

When the patient called at my office, I observed that he dragged the right leg a little, and that he presented the facial aspect of one who was seriously ill. An examination of the ear revealed the existence of a large polypoid mass which nearly filled the left external auditory canal. After it had been removed, it was found that an opening into the tympanic cavity existed in the vicinity of Shrapnell's membrane. A slender probe was introduced, but no exposed bone was encountered. Hyperostosis of the inner half of the external auditory canal concealed a large part of the drum membrane. The odor of the discharge coming through the sinus was very offensive. There was no tenderness or redness at any point in the immediate neighborhood of the ear. Mastoid operation advised.

On January 10th, three days later, I found the patient, at his home in the country, materially worse. There was a moderate elevation of temperature (about 101.5° F.), and his pulse varied from 100 to 110 beats per minute, being at the same time quite weak. He had scarcely any power over the movements of the right leg, and he expressed himself as feeling very ill. Shortly afterward he had a distinct chill.

Ether was administered and the operation of opening into the mastoid antrum was performed in the usual manner. The bone was found to be everywhere of ivory-like consistence, requiring considerable force of the mallet to drive the chisel through it. Volkmann's spoons proved to be of no use until the antrum had actually been reached. They were then used in enlarging the opening into this cavity. By repeated injections of a warm 1 to 4,000 bichloride of mercury solution, and by the frequent employment of the slender middle-ear probe, which was pushed as far as possible in all directions, the cavities of the middle ear were finally cleared of their foul cheesy contents. It was surprising how large a quantity of this material was stowed away in this comparatively small space. A careful exploration was made for the purpose of ascertaining whether, through destructive ulceration, an opening had not been established in the bony tegman tympani. No such opening, however, could be found.

The edges of the wound were left gaping; iodoform gauze dressings were applied; and daily cleansing of the parts constituted the essential feature of the after-treatment. (The patient was under the care of Dr. T. H. Andress, of Sparta, N. J.) About the fifth or sixth day, when it was found that the case was progressing favorably in every respect, the edges of the granulating wound were approximated by means of a silver suture, which had been put in place (ready to be utilized at some later date) at the time of the operation. On February 16th, five weeks after the operation, the patient called to see me at my office. The external wound had entirely healed but there was still a very slight discharge from the external auditory canal. All pain in the ear and head had disappeared, and the right leg had returned to an entirely normal condition. His general health was excellent.

In the following case, thanks to an error which I made in the diagnosis, I am warranted in excluding wholly from consideration the possible effects of drainage and cleansing upon the favorable course pursued by the obscure deeper-lying disease. Absolutely no ear disease whatever was found to exist in this case at the time of the operation, and consequently, in weighing the therapeutic effects of the latter, we are perfectly justified in speaking of it as an issue pure and simple. The history of the case is as follows:

Case III.—The patient, a lady about fifty years of age, and, up to the time of the attack, in good general health, contracted a bad cold in the head early in April, 1892. This was soon followed by tinnitus and pain in the left ear, and impairment of the hearing. The pain resisted the ordinary measures employed for its relief, and gradually increased in severity. It involved the entire left side of the head, but was referred more particularly to the mastoid region. When the patient was seen by Dr. Thomas E. Satterthwaite, about May 1st, he found decided swelling and tenderness of the auricle and neighboring soft parts; the motions of the jaw caused pain in the left ear; the glands on the side of the neck, below the ear, were swollen; and there was a tense swelling on the posterior wall of the pharynx, behind the left tonsil. An incision of this swelling afforded escape to a considerable quantity of creamy pus. The posterior wall of the left external auditory canal was found to be swollen, and an incision in this region also gave vent to a certain amount of pus. From this time onward, for a period of nearly three

weeks, the patient experienced comparatively little pain in the ear or in any part of the head. The hearing on the left side soon returned to a fairly normal condition. Pus, however, continued to escape from the opening in the posterior pharyngeal wall, and the patient steadily grew weaker. The constant escape of pus into the fauces rendered her less and less desirous to take food. In fact, she had to be coaxed a great deal before she could be induced to take the necessary amount of nourishment. It was observed, too, that her mind was beginning to be perceptibly affected, and the pupil of the left eye was noticeably larger than that of the right. The body-temperature did not at any time during her illness rise above 99.5° F. The pulse-rate was about 80, and the pulsations, as might be expected, were feeble. About May 20th she was seen by Dr. Robert Abbe, of this city. He was disposed to refer the source of the pus, which continued to flow abundantly from the opening in the pharyngeal wall, to disease of the sphenoid bone. He advised against operative interference. Shortly after this, the patient again began to complain of pain in the left mastoid region, and it was found that the hearing of the left ear had again become somewhat affected. There was also some redness of the skin behind the left ear, together with slight tenderness on pressure. As these symptoms persisted, I was asked (May 26th) to see the case in consultation with Dr. Satterthwaite, and Dr. Terhune, of Passaic, N. J. I found the patient in a condition of semi-stupor; whether from simple physical weakness or not, I could not determine. Her pulse was 80, and decidedly weak. There seemed to be some redness and swelling of the left mastoid integuments, but as a blister had been applied over the lower part of the process, and some distance below it, two or three days previously, I could not feel sure of the correctness of my observation. The external auditory canal and the membrana tympani were entirely free from any evidence whatsoever of inflammatory action. The spitting-cup, filled with water, was shown to me, and in it, floating as a separate mass, was about a tablespoonful of thick yellow pus. This represented, I was told, the entire quantity that the patient had spat out during the previous twenty-four hours. An examination of the pharynx revealed no points of special interest. The exact spot from which the pus escaped could not be verified by mere ocular inspection.

In the presence of such conflicting evidence—a history pointing strongly to the left ear as the primary seat of all the trouble, and yet, at the time of my examination, an almost entire absence of any recognizable disturbance in that ear—I felt considerable hesitation about putting forward even a diagnosis of probabilities. Nevertheless, from the sequence of pathological events, and especially from the recent return of mastoid pain and tenderness, I felt disposed to believe that there was still, in the substance of the mastoid process, a small remaining centre of osteitis, the purulent products of which were escaping through some opening in the under part of the process, presumably in the vicinity of the digastric fossa, and were seeking an outlet through the unhealed opening made with the knife in the post-pharyngeal abscess. This centre, I assumed, must necessarily be somewhat removed from the mastoid antrum, and from that part of the process which constitutes the posterior wall of the external auditory canal; for otherwise it would have betrayed its existence by redness or swelling of the soft parts of this canal, both of which conditions (as already stated) were absent. I further argued that if, perchance, this diagnosis should prove to be correct, the more direct drainage and ultimate healing of this centre of mastoid inflammation which we might reasonably expect to obtain by an operation, would in all probability cause the post-pharyngeal abscess to heal.

On the following day, May 27th, the operation was performed. A curving incision, about two and a half inches in length, was made through the skin and periosteum, the outer surface of the mastoid bone was freely exposed, and by means of the chisel and mallet and Volkmann's spoons a large part of the bone substance lying external to the antrum was removed. Not a trace of anything like diseased bone was found, either in the main body of the bony prominence or in the direction of its tip, a large part of which was removed with the Volkmann's spoons. There was not even any recognizable congestion of these parts. In a word, the mastoid was found to be in a perfectly healthy condition.

The edges of the wound were left gaping, and simple iodoform gauze dressings were applied. From this time forward the patient, who remained under the care of her regular attendant at first, and then for a brief period under that of my associate, Dr. Robert Lewis, improved steadily although not rapidly. In the course of from four to five weeks the outside wound had healed, the discharge from the post-pharyngeal abscess had ceased, the mental disturbances had disappeared, and she had fully regained her general health and strength.

By way of summing up, let me rehearse briefly the salient distinguishing features of the foregoing three cases. In the first two it is highly probable that the intracranial lesions were very nearly alike in extent and intensity. In the one the original centre of carious bone, with its accumulation of foul *débris*, was effectively cleansed and drained, and yet the intracranial disease pursued its course to a fatal termination without manifesting any but a transient tendency to quiet down under the influence of this drainage and cleansing. It had acquired so great an independent momentum that it no longer needed, for a continuance of its harmful course, the stimulus of the adjacent centre of middle-ear disease. The same remarks, I believe, apply with equal correctness to the second case. Here, too, the original centre of carious bone disease in the middle ear was drained and cleansed, but the intracranial disease, instead of growing worse, underwent a steady and permanent change for the better. To what shall we attribute this favorable change if not to the powerful counter-irritant effect furnished by the presence of an extensive issue in the immediate neighborhood?

Finally, in the third case, the conditions of our problem in therapeutics are rendered peculiarly simple by the entire absence, so far as could be ascertained, of any centre of disease in the middle ear or mastoid bone. In this case, therefore, the establishment of an issue pure and simple is the only therapeutic procedure of which there can be any question. Indisputable, too, is the existence of some deep-seated and serious disease; whether at the base of the brain, or in the sphenoid bone, or where, is just now a matter of no special importance. The patient's full and, on the whole, rather quick recovery completes the series of facts. Do they not warrant the conclusion that counter-irritation, in the form of an extensive issue, effected the cure obtained in this case?

The Results of Coddling.—We know what is the matter with him, and have known it all along. He is very delicate, and the least draught of air will throw him into a chill. He suffers from cold feet and darting pains, and has the most miserable kind of an appetite. He is either greatly depressed or highly elated, and has an abiding conviction that he is soon to be called to render up his accounts. He believes in faith-cure and Christian science, yet he is the constant patron of his family physician, thanks to his faithful wife. Poor woman! She warms his shoes for him every morning, for fear they may be a trifle damp. She gets all his clothing ready, so he may jump into them quickly without too long exposure of the body to the air. She feels of his head for fear it may be too hot, and chafes his feet that the circulation may be good for the day. The poor careworn, anxious wife declares "he is so delicate," and he, the fool, thinks he is. Now what is the diagnosis in this case? She fusses too much! If such men had no one to fuss over them, they would become strong and well within three months. We often write of the nervous hysterical woman; but deliver us from the grunting man spoiled by the mistaken kindness of a devoted wife.—*National Medical Review.*

THE RÔLE OF THE POSTERIOR URETHRA IN CHRONIC URETHRITIS.[1]

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The erratic conduct of gonorrhœa is a matter of universal knowledge. It is probably the only feature of that interesting disease upon which there is wide consensus of opinion. Gonorrhœa varies from that simple and benign malady which the sophisticated young man would rather have than a bad cold, to the disease which, through its ultimate effects, undermines health and destroys life; from the three day indisposition to the endless *goutte militaire*.

Without consuming more time on the discussion of this feature of the variation in the length of time required for the cure of a gonorrhœa, let me express the uncertainty of this subject at the present day by quoting the honest and candid words of Dr. George E. Brewer, in his article on "Acute Urethritis," in the recently published "American System of Genito-Urinary Diseases." After giving statistics of cases in which cessation of discharge followed the use, after two weeks, of bichloride irrigations, he adds: "These statistics I believe to be as conscientiously prepared and as accurate as any others gathered in the same manner from the same class of cases suffering from this disease, yet I believe them to be absolutely worthless from a scientific point of view, for even my comparatively limited experience in the treatment of urethral disease has taught me that the simple cessation of discharge by no means indicates a cure of the disease; and I am prepared to say, without the slightest hesitation, that it is my belief that had a careful and thorough examination been made in each instance at the time when I reported the cessation of all discharge, not one case of my three series of cases would fail to show the unmistakable evidences of uncured urethritis, which might, under favoring conditions, again become active and furnish a secretion which would become contagious.

"Regarding the length of time necessary to effect a complete and perfect cure by this or any other method of treatment, I must confess myself wholly unable to present a rule which would be even approximately correct, as in this disease, perhaps more than in any other, success depends upon so many conditions which are intimately associated with the temperament, personal habits, and general health of the patient."

Before the advent of Neisser's gonococcus, and while the discussion as to the virulent or non-virulent nature of gonorrhœa was still on, both sides in this discussion had little difficulty in explaining these widely differing variations in duration and severity of the disease; the non-virulists explained it on the ground that the disease, urethritis, was not bound to any degree of regularity by ties of specificity or uniformity of origin, but was regulated in this respect by many extraneous as well as intrinsic influences, such as the hygienic conditions prevailing, the susceptibility of the patient, his condition of health, etc.; while the virulists held this very variation to be one of the chief marks of distinction between virulent contagious gonorrhœa and non-virulent or simple urethritis, and accounted for it on that score—light cases being looked upon as non-virulent, the others as virulent.

Since the presentation and dissemination of the belief in the gonococcal origin of true gonorrhœa, the non-virulistic school has thinned out to a condition almost of silenced minority; and we, firm supporters of that doctrine, are allowed, without confutation, to complaisantly account for the wide variances alluded to on the score of the presence or absence of the gonococcus—asserting that true gonococcal urethritis does not get well under four or five or six weeks, while those cases which do recover in less time than that are doubtless not due to the gonococcus, but are the product of some of the sixteen kinds of urethral organisms which Legrain[2] has run down and described to us as being eminently capable of inducing different forms and grades of urethritis.

I am a firm believer in Neisser's gonococcus and its noxious possibilities, but I cannot believe that the presence or absence, alone, of that organism determines the differences alluded to; and I should like to refer briefly to two cases which hardly allow us to acquiesce in such complaisancy; which, added to others that have come under my observation, but from lack of controlling conditions have not been as clean-cut in their clinical portrayal, have convinced me that urethral inflammations due to gonococci may display as wide variations with regard to severity and duration as if they were the result of gonococci, on the one hand, and of simple, non-gonorrhœal irritants, on the other:

Case I.—Profuse, purulent gonococcus, containing discharge from the urethra, beginning a week after exposure; passing through the increasing, stationary, and declining stages, with infection of the posterior urethra and persistence, for a time, of irritative symptoms and the post-gonorrhœal Tripperfäden. Finally, under care and strict abstinence from sexual relations, these disappeared almost entirely in about three months.

Case II.—This patient (the same as above) comes a year later, with a profuse, purulent gonococci, containing urethral discharge, which he says began two days after intercourse. But though he could, and did, account for the attack of gonorrhœa previously related, since it followed an intercourse with a prostitute, this present attack mystifies him greatly. To avoid the possibility of a repetition of his experience of a year ago, he had taken the precaution to confine his sexual relations to an unsuspicious source; but, to make assurance doubly sure, he had used a clean and fresh unbroken condom in the act of intercourse. And yet he has acquired a clap! This attack, however, in proof of the unreliability of the gonococcus as a criterion for prognostication, yields readily to simple astringent medication: and, after a few weeks, not even Tripperfäden are left in sufficient abundance to justify continued treatment.

I have likewise observed cases of traumatic non-venereal urethritis which had lasted for months or years, one in a medical gentleman which had existed at least three years. The conclusion is unavoidable, therefore, that the presence or absence of gonococci is not the sole factor which determines whether an acute urethritis is to be a rapidly healing one, or a never-ending one. And this, as I said, independently of abnormalities such as wide-calibred stricture, narrow meatus, etc., which have held such wide domination in the medical mind as inducers of chronic gonorrhœa. That gonorrhœa requires no such anatomical defect for its indefinite prolongation is evidenced by the numerous cases which we all have in which the most scrutinizing examination fails to disclose any signs of stricture other than the natural variations in the calibre of the organ; or cases in which such variations, looked upon as noxious though natural, are removed by cutting or stretching and yet no relief follows. Consequently, in our endeavor to be both scientific and successful, we must find some other cause that will bear the onus of being a prolific source of chronic gonorrhœa. If "granular urethritis" or "catarrhal urethritis" or "hypertrophic urethritis" or "infiltrating urethritis" be offered as causes to account for the frequent indefinite prolongation of gonorrhœa by such pathologists as Oberländer, they do not satisfy us, as we still wish to know what it is that has produced these several pathological conditions? To be sure, "glandular urethritis" is a pathological condition which also accounts, in part at least, for the prolongation of a certain proportion of gonorrhœas; but the question obtrudes itself on us, even in that case, Why is there glandular urethritis in one case

[1] Read before the American Association of Genito-Urinary Surgeons, Harrogate, Tenn., June 21, 1893.

[2] Legrain: Des Microbes des Écoulements de l'Urèthre, Thèse de Nancy, 1888.

and not in another? So that pathologists with sharply drawn distinctions as to varieties of urethritis have not satisfactorily solved the problem.

Urethral therapists, ardent advocates of new or specific remedies for gonorrhœa, as each has been brought forward, though explaining it on the ground of inefficacy of previous modes of treatment, have each in turn, from time immemorial, failed to establish the fact that the particular mode of treatment or the remedy for which they were then contending would do away with prolonged gonorrhœas. And they have been compelled, one after the other, to admit that it was not always because of inadequate or erroneous therapy that the duration of clap had not been shortened. Have we not but lately witnessed, practically, the discarding of the antiseptic irrigation method that seemed destined to sweep all other methods from the practitioner's hands, not to speak of the successive failures of thalline, resorcin, bichloride of mercury, etc., as efficacious specifics? So that maltreatment or lack of modern medicines and methods cannot account for the continued occurrence of prolonged claps. No more will the condition of general health, conduct of life, hygienic influences, etc., account for the frequency of this condition. These may all be favorable in any number of instances, and yet the evidences of gonorrhœal inflammation do not cease. All of these various factors are the ones to which prolonged gonorrhœa is usually attributed; and though I acknowledge their relatively important bearing, as having a contributory influence, I believe that there is one which is vastly more prevalent, more constant, and more directly influential in the prolongation of clap than any one or even a number of these—a condition that surpasses in frequency, if not in consequences, the much-vaunted stricture or the omnipresent narrow meatus.

I am well aware that infection of the posterior urethra is almost universally recognized, by advanced practitioners of the present day, as a complication of gonorrhœa that is difficult of cure when it does occur; that causes a considerable degree of annoyance to the constantly urinating patient; that interferes with the regular course of treatment which has been prescribed; and that, after apparent recovery, offers secure intrenchment for the baleful gonococcus, which, on being at least temporarily subdued, bides its time for outbreaks a month, a year, or a decade, perhaps, in the future. But I do not believe that the full importance of posterior urethral inflammation is yet generally conceived; that its frequency is even approximately estimated in general, or that its bearing on the treatment of almost every case of gonorrhœa is understood, recognized, or acknowledged.

I do not think it necessary to allude to the far-reaching consequences of infection of the posterior urethra when it does occur as a complication of gonorrhœa; I take it that before this assemblage it would be supererogation to dilate on the opportunities for unlimited hetero-infection afforded by chronic posterior urethritis; on the capacity for indefinitely repeated auto-infection endowed by it; and on the common difficulty of restoring such a urethra to health without direct local treatment, besides its other portentous aspects in the way of arousing reflected irritations, etc. I take it that the important influence, in these various directions, of posterior urethritis, when it does occur, is fully conceded by the gentlemen present; so that if it is a frequent complication, the *rôle* which I would claim for it in the establishment and maintenance of the affection under discussion will be granted as well.

I may say that the degree of frequency with which I estimate infection of the posterior urethra in true gonorrhœa is expressed by the opinion that it should not be looked upon as a complication of the disease occurring exceptionally, but it should be looked upon as a natural feature, occurring with such unfailing regularity that an observer, watching carefully and critically gonorrhœal cases, must see very many of them before he meets with one which remains free from the so-called complication throughout the existence of the disease. I believe that it is practically almost always present, at some time, in cases of any considerable duration or severity. My attention was engaged in this direction some two years ago, and since that time, while I have not had for observation the large *clientèle* that would add materially to the weight of my observation, I have yet observed a very considerable number of cases of urethritis of all degrees of severity and duration; and I have not failed, so far, to demonstrate the existence of posterior infection in any case which displayed either of these characteristics—severity or persistency.

In the cases observed I can disclaim being myself the author of the posterior involvement, as I am not pertinaciously active or over-zealous in early treatment of a gonorrhœa, nor have the observations which confirmed this belief all been based on cases treated by myself from the outset, or even treated by anyone from the outset. They have occurred either in cases treated by internal medication solely, by local medication solely, by both combined, or by neither—that is, lack of any treatment. So that the practically unfailing appearance in these cases cannot be attributed to the form or the kind of treatment, either unduly moderate or inconsiderately severe.

My habit of investigation as to the presence or absence of posterior urethritis in chronic gonorrhœa has been rather searching. I have endeavored not to overlook it in case it were present, as well as to be able to exclude it, were that possible. The double-glass urine test serves me usually, and seldom fails to indicate posterior infection, even when urination has occurred within one or two hours previously. The irrigation test may also be employed satisfactorily. In some cases, however, in which the second portion of the urine is practically clear and therefore not indicative of posterior infection, subsequent study of the case has shown that posterior inflammation was present, rendered manifest by the passage of a bulb-sound into it, or of a soft rubber irrigation catheter, and afterward by the cloudy appearance of the second portion of the urine. The necessity, therefore, for searching investigation in this respect has been made apparent: I do not exclude it on simply the appearance of the urine passed at the first examination.

The classical description of the progress of gonorrhœa represents it as gradually passing from the meatus; following its commencement there is an inflammatory process backward along the mucous surface toward the bulbous portion, which, because of slow progression, it does not reach until about the second or third week (Finger and others). Various reasons are given to explain why it does not readily or usually pass from this portion further backward into the posterior urethra. Guyon says it is because of the resistance offered by the tonic contraction of the cut-off (compressor urethræ) muscle, located just proximal to the bulb, which muscle, as is well known, prevents the ready ingress of fluid, etc., through it. Others[2] point to the paucity of glands and vessels in the posterior, as compared with the anterior urethra, rendering it an uninviting field for the establishment of the inflammation there. These writers, while endeavoring to harmonize as to effects, evidently disagree as to causes; for while Brewer denies the discriminating intelligence for excluding the inflammatory process ascribed to the external sphincter by Guyon, Guyon evidently places as little faith in the alleged paucity of glands of this part of the urethra, as he says[2] the follicles (urethral) are met with in three portions of the urethra; the simple (racemose) glands (*en grappe*) are scattered through the spongy portion and the membranous portion. So our opponents, who should be allies, furnish us with material for the refutation of their own arguments; and were it not that the causes given to account for the presence of this so-called complication are infrequent, we should at once be reduced to the conclusion that this is necessarily a frequent condition in gonorrhœa.

[1] Brewer: Syst. Gen. Urinary Surgery and Ven. Dis., 1893.
[2] Leçons cliniques sur les Malades Voies Urin, 1885, p. 721.

That is, those who argue for its infrequence furnish little reason why it should be infrequent.

The causes they give for its establishment are said to be both internal and external. Representing the former class we have constitutional debility or lack of general resisting power, which, of course, makes lack of local resisting power.

Exhaustion from over-exercise is named as acting similarly. Illustrative of the second class of causes (external) sexual intercourse, the forced or awkwardly administered injection, or the passage of an instrument (catheter?) are chiefly complained of by writers on the subject—extremely seldom by the patients themselves. Indeed, were the posterior inflammation always to await introduction by one of these alleged external causes, it would assuredly be an infrequent complication, since they are not incidents in the vast majority of cases of active gonorrhœa. Gonorrhœa patients are not usually consumptive or diabetic or decrepit from such exhausting diseases; nor are they in the habit of having sexual intercourse in the active stage of the affection, or of passing instruments—that oft-proclaimed but never observed cause for primarily exciting posterior inflammation. Horteloup has investigated the probable influence of the passage of a sound or of a forced injection in such cases; he has experimentally tried them, and without setting up posterior inflammation. The very inadequacy, then, of these several causes as exciters of posterior urethritis is the strongest argument we can discern for its being of infrequent occurrence. And yet clinical investigation shows that it is of frequent occurrence—of exceedingly frequent occurrence. Supporting my convictions as to this point, I have the following statistics of authors who have been pursuing a similar study of late years: Letzel asserts that of 53 cases of primary gonorrhœa under his care the posterior urethra remained unaffected in only 4 cases, making the frequency of posterior urethritis 92.5 per cent. in this series[1]; Jadassohn [2] found posterior urethritis in 143 of 163 cases of gonorrhœa, thus making 87.7 per cent.; Rona[3] declares that it was proved to be present in 79.7 per cent. of his cases; Éraud found it present in eighty per cent. of all (acute and chronic) of his cases.

Ground for belief in the surpassing frequency of posterior urethritis seems, then, to be established, and it remains to harmonize this fact of frequency with the reason for frequency, since that is certainly not done by any of the teachings alluded to. Bearing on this point the time and mode of infection of the posterior urethra are important. We have been taught that the mode is by continuity of tissue, the inflammatory process travelling over the surface of the urethral mucous membrane, gradually approaching the cut-off muscle, which it reaches and passes (if the posterior portion become affected) about the third week.

Again, I would submit the practical teachings of the clinic as confuting the teachings of the text-book; for I have repeatedly observed the proof of the setting-up of posterior inflammation long before the time scheduled for its usual appearance. Rona (*Ibid.*) says that in the cases which he watched, instead of its awaiting the third week of the disease, posterior inflammation made its appearance in the first (active) week in 82.9 per cent. of the cases in which the posterior portion became involved; and Heissler [4] asserts that in twenty per cent. the prostatic urethra becomes affected in the course of the first week, in thirty four per cent. in the course of the second week, in fourteen per cent. in the course of the third week, in twenty per cent. in the fourth week, in four per cent. in the sixth and seventh weeks, and in two per cent. in the second and third months.

These records do not bear out the claim for the gradual progression of the inflammation by continuity to the posterior urethra, but they argue forcibly for the correctness of the theory of Horteloup[1] that the infection is accomplished through the deep lymphatic ducts leading from the anterior to and through the posterior urethral membrane, emptying into the pelvic (internal iliac) glands (McClelland, Gray). If this be really so, it will explain satisfactorily the practical invariability with which the posterior urethra becomes involved, as determined by scrutinizing clinical examinations; it renders plain the small amount of influence played in this regard by the cut-off muscle, or the forced injection, or the alleged passage of instruments, sexual intercourse, etc. These have been uselessly, as well as unwarrantably, invoked to account for the complication that is no complication, but is merely one of the phenomena of the disease gonorrhœa—a phenomenon whose importance, when present, there is no need for dwelling on before you gentlemen, but whose importance through frequency, and therefore in its bearing on almost every case of gonorrhœa, I wish to accentuate.

Conclusions.—1. The causes usually given for the prolongation of cases of clap (presence or absence of gonococci, stricture of large calibre, the use of particular drugs in treatment, etc.) do not satisfactorily explain them, nor do they furnish reliable means for prognosticating the outcome of a case.

2. A single widely prevalent cause for such prolongation of gonorrhœa has, as yet, not proved its right to recognition as such.

3. Posterior urethritis, by reason of its anatomical seclusion and inaccessibility to ordinarily prescribed treatment, if frequent, offers the best explanation for such prolongation or repeated recurrence.

4. Scrutinizing clinical investigation shows posterior urethritis to be present in the great majority of cases of prolonged or severe gonorrhœa.

5. Direct, topical treatment to the posterior urethra is, therefore, necessary in the great majority of cases.

6. The causes usually given for producing posterior urethritis are not commonly found to be real factors in the clinic.

7. The mode of onset usually described does not coincide with that discerned in clinical observations.

8. These two latter observations confirm the probability that the posterior urethral infection is accomplished through the lymphatics, and explain the frequency of such infection.

9. Posterior urethritis is not a complication, but a natural phenomenon, of gonorrhœa.

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Birth in the Coffin.—The *Medical Press* quotes the following singular case from a German exchange: "The patient, aged thirty-five, was attended in labor by a midwife on the 19th of June. The same evening, at 7 P.M., the woman died undelivered. The funeral took place three days later. On the 5th of the following July the body was disinterred on account of an accusation of malpractice made against the midwife. On opening the coffin there was found, 'between the thighs of the corpse, the body of a male child.' There was also 'total eversion of the uterus, together with the vagina.' It is supposed that the decomposing gases in the abdomen of the corpse were sufficient to cause the expulsion of a normally presenting fœtus."

Medical Students in Austria.—Official statistics recently published show that during the winter semester 1892–93 the total number of students of all faculties in the universities of Austria was 13,537. Of these, 5,451 were students of medicine, Vienna heading the list with 2,205, the Czech Faculty of Prague coming next with 1,046; the German Faculty of the same University had 676, Graz, 584, Cracow, 517, and Innsbruck, 323.

[1] Int. Cent. fur Physiol. und Path. der Harn und Sexual-Organe, Bd. 2, H. 6. 1890.

[2] Beiträge zur lehre der Urethritis posterior, Verhanlungen der deutschen dermatolog Gesellschaft. Wien, 1889. Braumueller.

[3] Pester Medizinisch-chirurgische Presse, No. 35, 1892.

[4] Ibid., 1891.

[1] Leçons sur l'Urêthrite chronique, 1892.

MEDICAL CARE AND TREATMENT OF INEBRIETY.[1]

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THE "old dogma," that medicine was the art of curing disease, was untrue. If this theory had said that medicine was the art of understanding disease, and relieving and changing the symptoms, modern science would have sustained it. To say that a disease is curable, means that it is self-limited, and the natural tendency is to recovery, both with and without the interference of art. Disease is simply a process of dissolution, running a certain course, controlled by certain conditions.

If we can understand this dissolution process, and the antagonistic influences of the body, we may interpose the resources of art to aid nature in halting the degeneration.

Disease of the brain and nervous system are more complex, and depend on a larger number of causes, which are always more or less obscure. Yet the same evolution and dissolution exist, the same uniform movement following as the result of distinct causes.

In inebriety the problem to determine is this: First. The present condition. The organic and functional derangements of digestion, nutrition, and of the brain and nervous system. Second. The use of alcohol and other drugs and their effect on the nerves and brain. Third. Was the drug and alcoholic addition at first only a symptom or an active causation? Fourth. What neuroses and heredity were the active or latent factors in the natural history of the case?

A study of these questions will point out the line of treatment that will assist toward recovery. A common case will illustrate this more clearly. You are called to see a man who has gastritis, who has taken but very little food for weeks, but has drunk continuously various forms of spirits. Both digestion and nutrition are seriously impaired. General hyperæmia and defective motor and sensory control, and feeble, unstable brain power, are present. If the case is treated from these symptoms alone very little can be expected. If the inquiry goes back to the effects of spirits on the body, and when and under what conditions they are taken, and also the origin of the drink addition, many new indications will appear. If it is found that the use of spirits began from some severe strain or state of exhaustion, or following some disease, or was the result of irregularity in the mental and physical surroundings, further light is added. If the history point to a neurotic inheritance direct, as from alcoholic ancestors, or indirect, as from insane, consumptive, or epileptic, or any of the neuroses, a new view obtains. The treatment of a case that simply checks the brain and nerve irritation by narcotics, or by the removal of spirits, or by elimination removes the congestion and relieves the gastritis, is only partial. Suppose the pledge or conversion, or any moral and mental stimulation, fills the mind with an ardent confidence that he never will use spirits again; or suppose he is given narcotics until the system is saturated, the same effect follows. The mind is buoyed up with the hope that all desire for spirits has ceased, and he is henceforth a free man. All this is empirical, and is neither medical art nor science. A cathartic or narcotic given for some superficial symptoms may do good, and yet it is a mere accident. Moral advice may help the case, and the drink craze may die out; this is also an accident entirely unforeseen.

The inebriate is diseased, and the question of medical care and treatment turns on an exact knowledge of the causation and his present condition.

Such a knowledge will enable the physician to point out the conditions from which a return to health may be expected. He can point to the oncoming insanity of which the drink impulse is only a symptom. He can anticipate the general paresis which is so commonly preceded by an impulsive craze for alcohol. Melancholy suicide, and acute delirium can all be seen in advance, and the more accurately the case is studied, the clearer will be the prognosis. There are no cases that can be more accurately anticipated than these. Certain cases in definite surroundings will have a uniform line of progress that will rarely differ. Take a hundred inebriates and from a knowledge of their heredity, environment, present condition, and the action of alcohol on the brain and nervous system, a prognosis can be made that will be verified in over ninety per cent. of all such cases.

The first question that confronts the physician when called to a case is, What is the present condition and what means can be used to alleviate it? All inebriates suffer from degrees of paralysis, both vaso-motor, sensory, and functional. There is present always functional palsy and subacute inflammation that is generally local. The heart is enfeebled and often enlarged. The liver is congested and the seat of a low grade of inflammation. The stomach is palsied and often acutely inflamed. In cases of long standing, neuritis of the nerves of the extremities in a greater or less degree is present. The first treatment is preliminary, and should begin with a warm bath and thorough rubbing to counteract the vaso-motor palsies of the cutaneous veins and arteries. One of the marked effects of these palsies is to retard and prevent elimination of waste matter through the skin. As a result new sources of danger arise from the chemical decomposition of waste effete matters retained in the system. Ptomaïne poisonings and new sources of irritation, new soils for the growth of bacteria, appear.

The bath is simply a cutaneous stimulant to aid in the elimination of these products. After the bath comes what is termed internal lavage or washing, based on the same reason, viz., as of eliminating the poisonous products which are formed by the paralysis, both functional and organic.

This lavage is best secured by a saline or mercurial cathartic and copious draughts of warm or acid waters. For the nerve paralysis and irritation, the various forms of bromide seem sufficient. I think large doses of one hundred grains at a time are most practical. Of course all spirits are removed at once, and for another purpose, to uncover the real causes which may be masked behind, and appear when the spirits are removed. If profound collapse and acute delirium follows this treatment, I give some form of concealed preparation of opium, usually the deodorized tincture in cinchona bark infusions. This is withdrawn as soon as possible and the bark preparations continued. If digestion is seriously impaired, I give nux vomica in $\frac{1}{10}$ grain doses.

In this preliminary treatment salines, mineral waters, and fruit acids are the common associated remedies. Rest in a recumbent position and passive exercise from massage, together with restraint, are all important. During this preliminary treatment a study of the physiological and pathological history will indicate the causes most active in the craze for spirits. When they are traceable to syphilitic poison and general exhaustion from bad living, a long course of mercury and arsenic, with total change of life and surroundings, are indicated. When the first causes are clearly head injuries, and a slow degeneration from subacute inflammations and other obscure brain and nerve changes appear, very active constitutional treatment with changes of living are essential. Baths, diet, mineral and acid tonics should be alternated with bark infusions. Where traumatism is a distinct cause, all treatment should be based on the prognosis of serious present and future brain trouble.

Where heredity is prominent, the drink craze is a symptom of a constitutional impulse or proclivity to acute degeneration, exhaustion, and death. The same bad prognosis should suggest the most radical changes of life and living, and all medication should be directed to this end. Where this tendency to use stimulants or drugs that are irritant and sedative to the system exists in young persons, a grave future is before them. Often such persons are found in the best families, and will seek ad-

[1] Read before the Hudson County Medical Society, New Jersey, at their semi-annual meeting, April 10, 1892.

vice for some digestive troubles, when it will appear that the real trouble is that some form of alcohol is freely used at the table, or as a family medicine for all disturbances. Where a neurotic heredity is present the future is grave. A recent work on the treatment of children advocates the use of brandy as a tonic in constitutional debility and general anæmia. The author would be astonished if chloral or morphine were urged for these conditions, and yet he advances substantially the same thing. Alcohol to a child is nothing more than a narcotic. A craving for drugs of which alcohol is prominent, is a dangerous symptom. Where the causation of the inebriety has apparently come from exhaustion due to overwork, imperfect nourishment, and general starvation, the treatment must be directed to remove and change these conditions. Where it has started from nutrient disorders, such as indigestion and tissue starvation, the treatment must be based on a careful examination of all the probable complications that exist. The faults of functional and chemical processes of the liver, stomach, and intestines are to be treated as in complex states of dyspepsia. The mental treatment is often of great value, and the physician should always remember that psychical therapeutics are essential in all these cases. Another class will have a clear history of acquiring the drink impulse by contagion, or, more popularly called, bad company, bad example, bad social companions and surroundings.

All such cases will be found defective in both brain and nervous structure. They come from defective race-stock, and have a heredity or neurotic tendency; this, with faulty training, is quickly followed by an unstable brain equilibrium, and consequent exhaustion, for which alcohol soon becomes a grateful narcotic. Such cases are brain defects with central neurasthenic conditions. They need change of every condition of life and surroundings. They should go back to the country and live far removed from every possible strain on the brain and nervous system.

The primary condition in all these cases is failure of the central brain structure. The exhaustion and losses of vital energy are not easily restored by natural processes. Full restoration never occurs, and ever after this want is manifest in weakness, debility, and lowered vitality. Alcohol stills this demand for relief by narcotism and paralysis. The heart's action is raised, then lowered. Currents of blood are driven rapidly to all parts of the system, then slowed down. The temperature is lowered, and the exhaustion that existed primarily is increased. In periodic cases the abnormal brain-force accumulates and is discharged in an epileptic condition, only instead of a spasm attended with tonic and clonic contractions, it becomes an insane thirst for the narcotic effects of alcohol. When this is accomplished, a long period of rest and general anæmia follows. If this insane thirst for spirits can be neutralized and changed, it may be broken up. Fortunately many of these cases have exact and distinct cycles which rarely vary and whose return can be predicted. When this is understood, anticipating treatment can be used. Active cathartics and prolonged hot baths, out-door exercise, where the person leads a sedentary life, or rest where the person is actively engaged, are valuable. Bromide given at night is sometimes of great value. In a case of an active business man in New York, who feels intensely nervous and irritable with his surroundings at distinct intervals, he goes away to the Catskills, tramping for days with dog and gun, and by this means averts a drink paroxysm. A noted physician, who suffers in this way, goes to a hotel, takes large doses of bromide, and remains in bed for several days.

Many and various devices are used by this class with more or less success to prevent the drink storm. The real therapeutic aids should go farther back and seek to avert the causes which culminate in this way. In one case under my care sexual exhaustion was the cause. The man had been a periodic drinker for ten years; his wife died and he recovered, and was temperate for six years. He married again, and a few months later these drink storms returned. Two years later his wife went to New York and was treated six months for an ovarian tumor. He was temperate again and has been so for a year; his wife meantime is travelling in Europe.

These cases are more common than one would suppose, and indicate a neurotic basis to begin with. This periodic return of the drink impulse should suggest some active exciting cause that may be found and corrected. A case was noted by Dr. Brainard, of Columbus, O., where the expulsion of a tapeworm was followed by a total subsidence of the drink impulse. A soldier, who had been a severe drinker for years, recovered after an operation in which a spicula of dead bone was removed. This had existed from the close of the war. The train despatcher of a large railroad, who worked at night and had for many years long and severe drink excesses, recovered by merely changing his work to the day and sleeping at night. A prominent hotel man who has been under treatment will have a drink excess if he remains up at night or past midnight. If he is careful to retire regularly he can remain temperate. Another case has been noted of a quiet farmer who never drinks except after a religious revival. He will take a very active part in the revival meetings, and when they end commence to drink, and be much intoxicated for a week, then suffer from some acute indigestion, and after some medical care recover, never drinking again until another revival comes. Many of these cases only drink on holidays or days of general celebration, and remain sober the rest of the time. Some condition of brain exhaustion exists which is partially controlled until these stated periods of relaxation, when it breaks out again. Such cases need treatment, and often can be cured.

These periodic cases have always a strong tendency to merge into epilepsy and acute dementia. Suicide and homicide frequently are associated. The severe paralysis of the brain in these drink excesses are always perilous to the brain integrity. It is a safe conclusion to follow that the brain in these cases is seriously impaired, and cannot be trusted for sound consistent work. The treatment for this condition is most important, as is also the removal of the active exciting causes.

When the case is that of a continuous drinker, the possibility of general paresis should be considered. Often a prodromic stage of months and years occurs in which the drink impulse will be the leading symptom, then merge into paresis, which speedily culminates in death. The long formative period was noted principally for inebriety, and possibly sexual excess, and slow, growing delusions of grandeur. A noted senator has for two years developed this drink craze, which is concealed as much as possible, yet it is only symptomatic of on-coming paralysis.

These cases are numerous, complex, and are more or less amenable to medical care and treatment. They are medical cases and can only be benefited by medical advice and treatment. The radical changes of life and living can often be best secured in an asylum, where they can come under the constant care of the medical man. The drink impulse is only a symptom, and remedies addressed to this alone are not curative. The case is a constitutional one, to be reached by general remedies, along lines of scientific study. Here, as elsewhere, no specific remedies will be found, for the reason that the causes are so complex, and include all the functions and organic processes of the body. The action of alcohol is equally complex and general, extending to all parts of the body: not only changing the chemical conditions of the nutrition and cell-growth, but paralyzing and breaking up its normal action.

Therapeutic art has not advanced far enough to point out remedies that will reach or neutralize all these diseased conditions. Theories of the action of this or that remedy are open to grave suspicion of error. The more inebriety is studied the more doubtful specific remedies will appear. Only the charlatan and ignorant will ever prepare special remedies for this disease.

In this brief outline of the medical care of such cases, my object is to make prominent the fact that these are curable cases, and always more or less benefited by exact scientific medical care. These armies of inebriates open up a new field for medical practice, one that can show equal triumphs of science and art to that of any other department of medicine. Unfortunately, to-day this realm has not yet been rescued from the mysticism of moralists and quacks. A vast army of squatters, pietists, politicians, and reformed inebriates, are teaching the world the nature and treatment of inebriety. Specifics surrounded with mystery, and urged with the most ignorant dogmatism, are accepted as truths, and the press and pulpit hail their appearance with extravagant praise. Even weak, credulous members of the profession join in the popular current. Medical men, who should be teachers and leaders of public sentiment regarding alcohol and the inebriate, are silent, or carried away by the sentiment of the hour. Over a hundred thousand persons are dying yearly, directly or indirectly, from this disorder, and yet it receives no study or attention except from a class who, of all others, are the least able to comprehend its nature and treatment. It will be a source of wonder and amazement in the coming century, that the medical men of to-day should neglect and show such indifference to one of the greatest scientific topics of the age. We look back a century and find insanity and various epidemics utterly ignored by medical men; given over to the clergy, the politician, and the moralist. History is repeated in the present indifference concerning inebriety. There are over ten thousand physicians in New York State and only a very few have ever given inebriety any study. Yet over half a million temperance men in this country, of all grades, are talking, writing, and teaching what inebriety is and how to treat it. What a terrible sarcasm on our scientific intelligence! A field for scientific work and study is open before us, occupied by quacks and an army of non-experts to-day.

As scientific men but one course remains before us. That is, to study the inebriate and his malady, and teach the public the real facts and their meaning. To assert our true position as teachers, and thus rise above the dense ignorance of the quacks, the clergy, the politicians, the reformers, the moralists, and the inebriates themselves.

Let us show the coming generations that we had some idea of the disease of inebriety and its curability by medical means and measures in this our day and generation.

YELLOW FEVER AND ITS TREATMENT.

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Now that this disease is very prevalent in some of the Atlantic cities of South America, it seems opportune to publish some remarks on its character and treatment, based on my personal experience in a period of twenty-two years' residence in the West Indies.

Yellow fever, which may be now considered as an endemic disease in Porto Rico (place of my residence), used to occur, until the year 1875, only in the form of epidemics, which visited the island at intervals varying from three to ten years, imported from the Gulf ports, generally by vessels proceeding from the neighboring Danish Island of St. Thomas, or from Cuba.

Since 1873, when one of these epidemics occurred, during which I had a large number of cases under my care, the disease has continued to make its periodical appearance every year during the hot season, its extent and malignity varying, as the atmospheric and meteorological conditions of the place favor more or less the development of the germ which causes it. It generally appears first among the crews of foreign ships lying in port, the European troops which garrison the cities, and other unacclimated persons and new-born children, gradually extending to natives who are new residents of the cities, and finally to all persons.

Persons of the African race seem to be less liable to contract the disease than white men, and high localities are generally less frequented by it than low ones, where, in consequence of defective drainage, stagnant waters and decaying organic matters accumulate, which seem to favor the development of the germ. But, as above said, when the epidemic is at its height, it attacks in common Europeans and natives, white and black, and even the highest localities in the mountains, which were considered inaccessible to it, are invaded.

The number of cases varies in each epidemic, and so does the typical form of the disease, as well as the malignancy proper to the type. All or nearly all the cases that occur during an epidemic have the same form or type.

The types or forms which the disease may assume are commonly four, as follows:

1. Inflammatory; in which the predominant symptom is high temperature, which reaches an elevation sometimes of 105° F. from the start.

2. Nervous; in which, in the third stage, the symptoms of cerebral irritation, as delirium, tremor, cold skin, etc., are the most prominent features.

3. The hemorrhagic; in which black vomit and black evacuations are the most dangerous early symptoms.

4. Typhoid; in which the disease, in its third stage, assumes the characteristic features of the affections belonging to this type.

Black vomit is a characteristic and dangerous symptom of the disease and occurs in nearly all the forms earlier or later, though in some rare cases it is absent. The hemorrhagic and typhoid forms are the most severe. The course of the disease is generally divided into three distinct stages:

The first or invasion stage generally begins abruptly with the following symptoms: Chill, high fever, which in some cases reaches 103° to 104° F., supraorbital cephalalgia, lumbar pain, great congestion of the conjunctivæ, general malaise, and a sensation of profound debility. Toward the middle of the second day there is a great diminution of the urinary secretion, which often results in complete suppression, and in the urine a large amount of albumin is found, which is considered to be a pathognomonic symptom. Vomiting is rare in this stage in common cases.

This stage generally lasts three days, after which an intermission or simple remission of all the symptoms occurs, which may continue from one to twenty-four hours, according to the severity of the case. This constitutes the second stage.

In many cases the disease reaches the crisis in this stage, and convalescence is established. In other cases, however, when the patient seems to be progressing favorably, black vomit suddenly occurs and death supervenes in a short time.

The symptoms of the first stage may be mistaken for those of a gastric fever or the invasion of small-pox, which frequently coexists in the locality.

After the remission or intermission which follows the stage of invasion and which constitutes the second period of the disease, the third stage commences. The fever and other symptoms of the first stage reappear, and those peculiar to the form which the disease is to assume are developed. The duration of this stage is indefinite; it may be from three to eight days, according to the severity of the case, but generally if the patient survives after the sixth day recovery may be expected to follow after a more or less protracted convalescence. During the second or at the beginning of the third stage the peculiar yellow coloration of the skin which gives its name to the disease appears.

When the epidemic is at its height some cases occur in which the malignancy of the disease is such that it kills its victims in twenty-four or forty-eight hours. In these cases the dose of the poison which causes the disease, absorbed by the patient, seems to be so large that it causes

a rapid destruction of the elements of his blood, and black vomit sets in early in great abundance, causing the death of the patient by exhaustion. Young and robust subjects are more liable to be attacked by the disease than are weak ones, and they are generally the victims of this malignant form.

The matter vomited in this disease, which is called black vomit, has a very peculiar appearance and resembles very closely the sediment of red wine. The separation of the fluid from the solid element can be noticed at once. It looks more like an exudate than blood, and it exudes from the blood-vessels and through the mucous membranes of the stomach and bowels, and wells out of the mouth of the patient without any apparent effort on his part. This hemorrhage or exudation not only takes place from the stomach and bowels; it also occurs in some instances from the mucous membranes of the mouth, nostrils, conjunctivæ, ears, roots of the nails, or from any blister or wound the patient may have. The matter ejected from the bowels has at the beginning the appearance and consistency of semi-liquid tar, and becomes more liquid as the disease progresses.

In cases that are to terminate fatally there is often an apparent amelioration of the symptoms shortly before death, which lasts a short time and is generally followed by fatal and copious vomiting.

Many papers and works have been written on the causation of this disease, and among these is prominent the extensive work of Dr. Freire, of Rio Janeiro, who pretends to have isolated the germ which causes it; and several commissions have been sent by the governments of this and other countries to the infected localities in Cuba and Brazil to investigate this same subject. Among these is prominent the name of Dr. Sternberg, of the United States Army, but so far no satisfactory conclusion has been reached and the causative germ or bacillus has not been demonstrated. The only facts which seem to have been established are that a low, badly drained locality, a certain degree of heat and humidity of the atmosphere, and bad hygienic conditions favor its development. It has not been determined whether the air, water, or any article of food is the conducting medium of the bacillus.

Authors vary as to whether yellow fever is or is not contagious and infectious. Admitting, however, its bacterial origin (as is generally admitted), and from what I had occasion to observe during different epidemics, I should consider it both contagious and infectious.

I do not know of any remedy which may be called a specific in the treatment of yellow fever. Starting from the accepted theory of its bacterial origin, almost all known antiseptic substances have been employed without any positive results. And although several drugs have been vaunted as having a specific effect by some practitioners, the experience of others has disproved their assertions.

In Porto Rico, where I resided, lemon-juice enjoys a great reputation among the public and is much used in conjunction with other vegetable juices by the laity in the treatment of the disease. I have not seen the wonderful results which are claimed for this popular remedy, but undoubtedly when judiciously used it has a soothing effect on the mucous membranes and in some cases prevents or stops vomiting.

Among the different treatments which I have used and have seen others use, the one which was more successful in my hands was that which I am going to describe:

When called to a case of yellow fever in the first day of the disease I would prescribe ten to fifteen grains of calomel, followed by a saline cathartic three hours afterward, and as soon as the cathartic effect would begin I directed the patient to take a cupful of hot lemonade with five to ten grains of bitartrate of potash every hour until abundant perspiration was produced; this was to be kept up by the constant use of the lemonade and confinement to bed for two or three days, at the end of which time the fever generally subsided and in many cases convalescence was established. No food was given during these days and nothing but small pieces of ice in the mouth was allowed to quench thirst. In cases in which convalescence was not established at once, the symptoms of the third stage appeared after twelve to twenty-four hours, but generally they were less severe and the majority of cases recovered.

In the first epidemic which I attended (1875) this treatment was so successful in my hands that I had a mortality of only about ten per cent. among my patients, who were sailors, and were attended on board the vessels lying in port, while in the hospitals on shore they were having a very heavy mortality under different treatment. In subsequent epidemics I did not find this treatment so effective, but it was always superior to any other when applied early in the disease.

When the disease advanced into the third stage the symptoms were treated on general principles. To prevent or check vomiting pieces of ice swallowed entire, iced champagne, effervescing mixtures prepared with fresh lemon-juice, sulphuric and hydrochloric lemonades, and diluted hydrocyanic acid proved useful in many cases. The salicylates of soda and potash, benzoate of soda, and quinine have been used in cases of the inflammatory type. Castor, musk, or other antispasmodics are sometimes indicated when the nervous system is much disturbed. When the stomach is tolerant and stimulation is required, alcohol and extract of cinchona bark combined is a very useful preparation. Having in view the parasitic origin of the disease, almost all known antiseptic substances have been used internally, but without any marked influence in the course of the disease.

Besides the drugs mentioned, others have been used to meet indications. In some cases of obstinate vomiting or frequent bloody stools the preparations of ergot and other hæmostatics have been employed with variable success; digitalis, scilla, and other diuretics have been given in cases in which the suppression of urine was a troublesome symptom. In cases in which heart-failure threatened, digitalis, caffeine, and other heart stimulants were used by the mouth or hypodermatically. The diet in this stage is iced milk and beef-tea, if the stomach tolerates it. In cases of recovery, convalescence is slow and protracted even in cases in which the disease only goes through the first stage, and the patients remain in a state of chloroanæmia, which takes long to disappear.

Salicylic acid and its preparations are said to have been used successfully as a prophylactic of the disease by some captains of merchant vessels who administered the acid to their crews in five-grain doses three times in the day.

From what has been said the following conclusions may be drawn:

1. That yellow fever is an epidemic disease which has a tendency to become endemic in localities in which favorable conditions for the development of its causative germ exist.

2. That it is of bacterial origin, although the precise bacillus which causes it has not yet been demonstrated; neither has it been as yet discovered whether the water, air, or articles of food used in the infected localities are the conducting media of contagion.

3. That it is probably contagious and infectious, although unacclimated persons and new-born children seem to be more susceptible to the disease.

4. That the blood seems to be most affected, the poison destroying its plastic elements, and it is in consequence of this that the other organic pathological changes which are found in post-mortem examinations are effected.

5. That the disease is more or less severe in different epidemics, according to the form it assumes, and this depends on the different hygienic and meteorological conditions of the affected locality at the time.

6. That there is no specific remedy for it, but that a treatment which promotes abundant secretions of the skin and bowels, if early and judiciously applied, often checks or modifies its course.

129 East Seventeenth Street.

HÆMORRHOIDS—A NEW FEATURE OF THEIR SURGICAL TREATMENT.

By J. V. BECELAERE, M.D.,

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"Quod ferrum non sanat, ignis sanat."—HIPPOCRATES.

THE treatment of ano-rectal phlebectasis, *vulgo* "piles," by cauterization is no doubt almost as old as the disease itself, and it is quite admissible that the father of medicine had in mind the treatment of hæmorrhoids in particular when he formulated his famous therapeutic aphorism: "Quod medicamenta non sanant ferrum sanat, quod ferrum non sanat ignis sanat, quod ignis autem non sanat insanabile reputari licet."[1]

In the course of an interesting discussion following a paper by Dr. H. O. Walker, of Detroit, on the treatment of hæmorrhoids, the statement was made by one of Michigan's leading surgeons that for the last thirty years no progress had been made in the surgical treatment of piles. The trend of opinion seemed to be that, of radical measures, Whitehead's operation was the one most likely to give permanent and satisfactory success. It was argued, however, that in some cases dissecting away the mucous membrane of the anus and inter-sphincterial portion of the rectum is contraindicated.

In 1889 a near and dear friend of mine was suffering with an aggravated form of piles, and I began thinking of a possible treatment—not so much curative as prophylactic.

We all know that hæmorrhoids are dilatations or varicosities of the lower rectal veins, which veins are normally disposed in the shape of loops traversing the sphincter muscle and underlying the mucous membrane in about the same way as the hernial gut hangs out of the inguinal canal under the skin. If a little congestion of these veins occur at an untimely moment, a partial reflex contraction of the sphincter muscle, impeding the return flow of blood, sets up irritation, which in turn increases the sphincterial strangulation. Thus, in consequence of a vicious circle, intermittent contraction soon becomes a fully developed contracture, which opposes all return of the blood retained within the dilated vessel. Continuing this line of thought I fancied that if we could in some way secure a more complete adhesion of the mucous membrane to the underlying muscular layer, destroying, if possible, the submucous connective tissue, we might oppose the recurrence of the hæmorrhoidal nisus and produce a radical cure. Regarding Whitehead's operation it strikes me that one might, perhaps, be satisfied with detaching in a circular manner the mucous lining of the sphincters without resecting the same. I should propose to dissect away from the subjacent muscular sleeve a mucous cuff, which I would forthwith replace in its former situation, and secure by a necessary number of stitches. I believe that in so doing we might obtain the formation of a little cicatricial tissue, just sufficient to secure a more close approximation of the mucous and the muscular layers of the lower bowel, thereby destroying at once the venous loops under the mucous membrane, and the connective interspace wherein they become dilated.

In cases where the knife is contraindicated, either on account of the patient's lack of courage or of previous alarming loss of blood, and, may be, as a matter of fact, in all cases where a surgical intervention is required, I should propose to try what may conveniently be called peri-marginal ignipuncture, and would recommend the following modus operandi: After insuring the benefit of all usual antiseptic precautions, the surgeon should paint over the previously shaved region a sufficient coat of simple collodion, which he should suffer to thoroughly solidify before proceeding any further. This I consider a most sufficient means of avoiding the disagreeable effects of radiating heat. A metallic dilator of convenient size, and filled with cold water, may further be inserted within the anus of the patient postured in the exaggerated lithotomic decubitus.[1] The surgeon then slowly passes the smallest point of a thermo-cautery, at a brown heat, right underneath the mucous membrane of the rectum until reaching the upper sphincter. Withdrawing the instrument he may reinsert it at another point, about a centimetre, or half an inch, distant from the previous puncture. It is a question to be decided

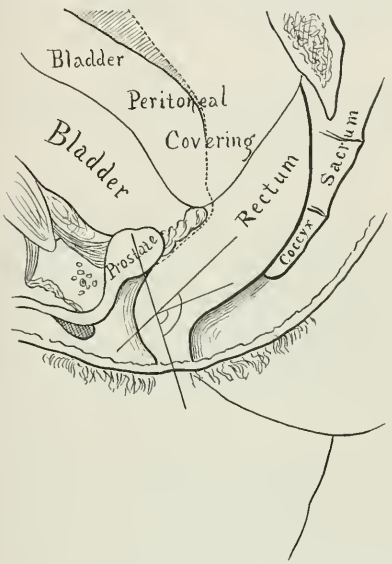

FIG. 1.—Showing how the axis of the sphincter crosses the long axis of the rectum at an angle of 110°. (From Tillaux's Anatomie Topographique.)

only by actual experience how many punctures may thus be made at one sitting; although *a priori* no reason seems apparent for not completing the whole operation at once. A large-sized galvano-caustic needle, constructed "ad hoc" might prove more useful even than Paquelin's instrument, because it could be introduced with the finger in the rectum, the necessary current being turned on with the cautery *in situ*, thus avoiding the danger of perforating the mucous layer.

To my idea the greater difficulty one would meet in trying ignipuncture would be this danger of perforation. But if one keep in mind the natural bearings of the

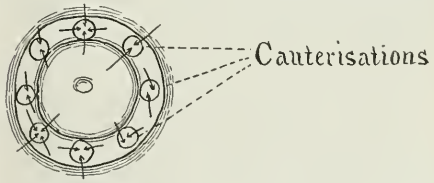

FIG. 2.—Horizontal Section through the Bowel. Inner circle, mucous membrane, outer circle, muscular layer. Observe the direction of the arrows, indicating a concentric retraction of the cicatricial tissue.

sphincterial segment, the main axis of which points directly toward the neck of the bladder, and which, if prolonged, would come out somewhere about the umbilicus, little or no fear need be entertained as to this possible complication. (See Fig. 1.) The capital danger of all orificial surgery lies in the subsequent cicatricial retraction.

Whitehead's operation sometime induces a permanent stricture of the anus; the same is true of extensive surface cauterization; we all know that by the use of the actual

[1] What drugs do not cure, iron (cutting) cures; what iron does not cure, fire cures; what fire, however, does not cure, may be deemed incurable.

[1] See p. 18 of Posture in Medicine and Surgery, published by the Daggett Cable Co., Buffalo, N. Y.

cautery for the "volatilization" of piles, after the method of Richet, of Paris, we may create a cicatricial retraction more aggravating in the long run than the oriignal trouble. If one will consider that all in nodular contraction is concentric, that is, proceeds from peripheral points toward the centre, it will easily be understood how a multiple columnar cauterization cannot in the least influence the calibre of the rectum.

It will be seen by the diagram (Fig. 2) representing the sphincterial region after the operation, how the general tendency would be toward an increase of calibre more than toward contraction.

226 East Congress Street.

A NEW APPARATUS FOR THE STERILIZATION OF MILK FOR THE FEEDING OF INFANTS AND INVALIDS.

By LOUIS WALDSTEIN, M.D.,

NEW YORK.

In his dissertation, made under the supervision of Salkowski in 1881, Hoffman found that milk heated up to 70° C. during two hours, coagulated in fine flakes upon the addition of a solution of extract of rennet. I have been influenced by this observation in my mode of preparing milk, during the last ten years, for infant-feeding, and for use in all cases of gastric diseases, including a considerable number of cancers of the stomach. The difference in digestibility of milk prepared in this manner was striking, and the results were satisfactory without exception.

I have been able to watch carefully the development and state of health of a number of children raised by this milk exclusively, and I can safely say that it was far preferable to any other mode of feeding; excepting of course the mother's milk. Such children begin dentition between the fourth and fifth month, and from then on their teeth come without extraordinary disturbances. They steadily grow in weight and corresponding strength, and appear to me normally resistant to the ordinary diseases of children. They do not suffer from constipation, and their stools are normal in color and consistence, while attacks of gastro-enteritis are rare. In cases of typhoid fever, ulcer of the stomach, malignant diseases, and wherever a milk diet is indicated, it is not at all rare to find individuals with whom milk does not seem to agree; but I have never found a case where milk steamed according to Hoffman's experiment, and to which a teaspoonful of a half per cent. solution of hydrochloric acid to each cup is added, the least difficulty is experienced during weeks of an almost exclusive milk diet.

When the results of bacteriological research were applied to the sterilization of milk for artificial feeding, another and most important factor was added to the scientific preparation of this fluid before it could be considered a wholesome food. From that time I adopted the use of the method of Soxhlet; principally because it then became simplified by the introduction of sterilizers which could be easily managed by the mother or the nurse.

It is hardly necessary to enlarge upon the results of infant feeding with sterilized milk, since Leeds has pointed out the effects which continued high temperature has upon the milk, destroying the starch, liquefying the ferment, and modifying the lact-albumin and casein.

My clinical experience has shown me that children of the wealthier classes so fed generally increase rapidly in weight, but are pale, constipated, frequently begin dentition only in the eighth and ninth month, and are generally not so resistant to the common diseases of infancy. I am, furthermore, not quite sure but that several cases of rachitis may not be referred to this food, as one of the exciting causes at least.

It goes without saying that I have carefully followed the advice of Soxhlet, Biedert, and others in the admixtures to the milk. In the above mentioned diseases, moreover, I fail to find "sterilized" milk as valuable as an article of diet as I have found that heated up to 70° C., during two hours, or one hour and a half. For some time past I have adopted, as quite as useful, the last-named period of heating.

It is useless for me here to enter upon a discussion of the great advantage of "pasteurized" milk; Freeman and Koplik have done that work most satisfactorily. I cannot help noting, however, the discrepancy in the results which Freeman publishes in the Medical Record of recent date, between the difference he found in the action of acetic acid and the glycerine extract of pig-stomach, hydrochloric acid, and water on the one hand, and the glycerine extract of pig-stomach alone. In the latter his results resemble those of Hoffman and my own repeatedly made; while the former show no difference in the formation of the curd.

I am convinced that the modification in the form of coagulation is dependent largely upon the length of time during which milk is exposed to the "pasteurizing" temperature. The vomit of over-fed children shows conclusively the resemblance between the curd of human milk and that of milk steamed during the proper length of time.

I have made use of Freeman's "pasteurizer" in several cases, and must say, be it the fault of the nurse or mother, or be it inherent in the process itself, many bottles would not keep perfectly sweet during the whole twenty four hours.

As so much depends upon the simplicity of the apparatus, which must be entrusted to common servants, and as it appears essential that the milk should be maintained at 70° C. for a considerable period of time, longer at all events than that prescribed by Freeman, a fact brought out also by Koplik, I have made use of a patented idea of my brother, Dr. Martin E. Waldstein, in constructing the apparatus which I would herewith recommend to the profession.

The principle underlying it is very simple. It turns upon the reduction and equal maintenance of the temperature of the water in an inner compartment, when it is separated from an outer one in which the water is kept boiling, by an air-space which is larger or smaller according to the difference in temperature which it is desired to obtain. The apparatus is made of tin and is composed of three separate divisions, soldered together in such manner that it is practically of one piece. Between the inner and outer chamber an air-space of one-sixteenth of an inch is interposed, from which the heated air escapes by holes punched in its top. When it is to be used, both compartments are filled with boiling water, the rack containing the bottles is submerged into the inner one up to the milk line, then covered over with the lid and allowed to remain upon the stove during one and a half hour. The milk in my apparatus never reaches a higher temperature than 72° C., never one below 70° C.; the water around the bottles is soon reduced to and remains at 75° C., or a little over, and the water in the outer compartment is kept boiling during the entire time.

It is needless here to enter upon the treatment of the milk and the bottles; such directions are given with each apparatus, and the purchaser is referred to the physician for directions regarding the mixture of the milk chosen with regard to the case, or the age of the child.

Freeman has materially added to the technique of artificial feeding by pointing out the importance of rapid cooling of milk prepared in a like manner. It is, I believe, of very great importance, especially with regard to the separation of fat from the proteid liquid. For this purpose it is required, by the direction for the use of my apparatus, to empty the hot water from both compartments and to refill with cold or iced water, into which the rack and bottles are plunged and kept until used.

I devised and finished this apparatus a year ago, and during this time have fed a number of children exclusively with milk prepared by it, and can only say that my results have been so satisfactory, though necessarily limited, that I can conscientiously recommend it for extended use.

It has been possible to construct it in such a way that it is easily within the reach of the poorer classes, for whom all efforts in this direction are primarily directed.

My experience in pathological cases warrants its further adoption into general practice, and where any difficulty is met with in stubborn idiosyncrasy against milk, the addition of the above-mentioned quantity of hydrochloric acid will prove of great service. Ewald long ago called attention to the value of such addition of hydrochloric acid as a preventive against lactic acid fermentation.

The question how to raise children by artificial means is becoming more and more urgent of solution, because, for reasons as numerous as difficult to properly appreciate, the young mother of our time has no milk, or very little of it, and that very poor, and those classes from which wet-nurses are obtained are fast following her; every physician who has hunted high and low for suitable nurses, and who is as careful as he should be in his examinations of them, will bear me out in the assertion that a wet-nurse cannot to-day be "prescribed," as once it was by our predecessors of a little more than twenty or thirty years ago.

450 Madison Avenue.

REPORT OF THE USE OF SALOPHEN IN TEN CASES OF ACUTE RHEUMATISM.

By D. B. HARDENBERGH, M.D.,

NEW YORK.

PAST INTERNE BELLEVUE HOSPITAL; CLINICAL ASSISTANT, NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL.

The following is a report of a series of cases in the wards of Bellevue Hospital, during the services of Drs. C. L. Dana and J. W. Brannan, in which the use of salophen in acute rheumatism was tested.

Case I.—James R——, aged forty-six, laborer. Admitted December 18, 1892, suffering a mild attack of acute articular rheumatism. Pain, temperature and local signs not marked. Treatment: Salophen, gr. xv., t.i.d. Discharged, cured, in twelve days.

Case II.—James P——, colored, aged thirty-five. Admitted December 31st, with a temperature of 102.2° F. Acute articular rheumatism, with local symptoms well marked. Salophen, gr. xv., was administered, six doses in twenty-four hours.

January 1st.—Temperature in evening reached 105° F.

January 3d.—Temperature fell to normal, and so continued thereafter.

January 6th.—Patient left his bed, was placed on full diet, and in a few days discharged, cured.

Case III.—William McG——, aged thirty, laborer. Admitted February 6, 1893, at 3 P.M. Acute articular rheumatism, with pain very pronounced. Temperature on admission was 102.4° F.; two hours later, 103.4° F. Patient slept but little that night. Salophen, gr. xv., seven doses in twenty-four hours, and five per cent. solution of menthol applied to joints.

February 8th.—Temperature remained below 100° F.

February 9th.—Temperature normal, and so continued thereafter.

February 10th.—Medication reduced to three doses in twenty-four hours, and full diet allowed.

February 13th.—Patient about the ward, and a few days later discharged, cured.

Case IV.—John S——, aged thirty-four, laborer. Chronic rheumatism with chronic endocarditis. Admitted February 17th, while suffering an exacerbation of his chronic troubles. Temperature ranged from 101° to 103° F. Local signs in knee and both hands well marked. There already existed a mitral insufficiency, and the irregular and tumultuous action showed a present active process. With the exception of a rather unusual degree of stupidity, the patient's mental condition presented nothing noteworthy. Salophen was given several days, and then, through failure of supply, was replaced by sodium salicylate, gr. xx., five times in the twenty-four hours. To control the heart action digitalin, afterward the fluid extract of digitalis, was given in ordinary dosage.

February 25th.—Patient complained of a buzzing in the ears, but as the fever and local manifestations had not abated the salicylate was continued. One week later patient developed the delusion that electric wires were strung about the room, and declared he heard continuously their whirring. The salicylate was abandoned but the delusion progressed, and the patient, attempting to escape from the ward and its imaginary net-work of wires was referred to Dr. Douglas, and after the usual period of observation transferred to the Asylum for the Insane at Ward's Island.

Whether the salicylate of sodium merely determined the particular form of delusion, or was an actual causative element to the dementia, is an interesting question.

Case V.—Patrick M——, aged twenty-two, laborer. Admitted February 15th. Temperature, 102.6° F.; acute articular rheumatism. Salophen, gr. xv., seven doses in twenty-four hours administered.

February 21st.—Temperature fell to normal, and so remained.

February 23d.—Patient allowed about the ward, and was transferred, two days later, to complete convalescence.

Case VI.—Frank G——, aged sixteen, laborer. Admitted March 11th, with temperature of 102.6° F., soon reaching 103° F. Acute articular rheumatism. Salophen, gr. xv., every two hours for the first thirty six hours, every four hours thereafter, was given, and the five per cent. solution of menthol applied to joints.

March 14th.—Temperature fell to normal, and so continued.

March 16th.—Discharged, cured.

Case VII.—Frank P——, colored, aged fifty-five, 'longshoreman. Admitted November 30th. Temperature, 101.4° F.; acute muscular rheumatism. Salophen, gr. xv., seven doses in twenty-four hours. Left his bed December 10th; discharged, cured, December 15th.

Case VIII.—Michael D——, aged twenty one, 'longshoreman. Admitted January 24th, with temperature 100.4° F., rising that night to 103.2° F. Acute articular rheumatism. Salophen, gr. xv., six doses in twenty-four hours, with menthol and lead and opium dressings to joints given. Temperature ran normal from January 30th, and on February 7th patient was discharged, cured.

Case IX.—Chone S——, aged thirty-three, tailor. Admitted, February 14th; temperature 101.6° F., rising to 102.6° F. Acute articular rheumatism. Salophen, gr. xv., eight doses in twenty-four hours.

February 17th.—Temperature normal.

February 23d.—Discharged, cured.

Case X.—Matthew B——, aged thirty-one, driver. Admitted March 19th; acute articular rheumatism. Temperature at no time high, but the local signs and the symptom of pain with which the patient suffered intensely the first night were well marked. Salophen, gr. xv., nine doses in twenty-four hours.

March 23d.—Temperature normal; salophen discontinued.

March 25th.—Discharged, cured.

Upon these cases I would submit the following observations:

1. *Dosage.*—Fifteen grains, six to eight times in the twenty-four hours, or from ninety to one hundred and twenty grains in all in that period, may be considered adequate.

2. *Tolerance.*—That no gastric, aural, or other irritant or toxic property was manifested in a single case. Even when given far beyond the ordinary dosage no ill effects were observed. *E.g.*, Case VI., a boy of sixteen, who received two hundred and seventy grains in thirty-six hours.

3. *Therapeutic Effect.*—That the average febrile period after the exhibition of the drug, six and one-ninth days, and average period from admission to date of discharge, less than ten days, attest great curative value. The abatement of pain and local signs were correspond-

ingly rapid. No cardiac complication followed in any case. A five per cent. solution of menthol, absorbed in gauze and covered with oiled muslin, as a local application is a valuable adjuvant.

18 East Thirty-second Street.

Clinical Department.

SOME PECULIAR EFFECTS FROM LARGE DOSES OF HYOSCINE IN A CASE OF ACUTE ALCOHOLISM.

By JAMES PORTER FISKE, M.D.,
NEW YORK.

Of late years hyoscine has been placed before the profession as a valuable hypnotic in conditions of insomnia with delirium tremens, high mental tension, etc. During the past winter I had occasion to treat a gentleman suffering from an attack of insomnia, chiefly due to overindulgence in wine, but also due in a measure to business troubles.

Hyoscine hydrobromate was used, and as the action of the drug was somewhat different from that expected, and as a pure preparation was used hypodermatically, a report of the case will be of value to those who are making a study of the drug's action.

The patient, a man of forty years of age, health good, had of late suffered from insomnia, due to troubles connected with his business. I was called to see him on a Sunday evening, and learned that he had been drinking constantly for some days and nights. He was very restless, walking up and down the room, lying down for a minute and then starting up again. When walking, his gait was good. His speech was articulate, and most of the time intelligent. He was apparently very nervous, and begged for something to put him to sleep. At times he would see about him the faces of friends and with them he would converse.

11 P.M.—Gave hyoscine hydrobrom., $\frac{1}{100}$ grain, hypodermatically; absolutely no effect in forty-five minutes. The dose was repeated and then I had to leave the patient.

I was called the next morning at half-past seven. He had dozed for half an hour after receiving the second injection, and had then returned to his former condition of extreme restlessness. I determined to continue the use of hyoscine, and decided to give larger doses, and obtain a marked action from the drug if possible.

8 A.M.—℞. Hyoscine hydrobrom., $\frac{1}{60}$ grain, hypodermatically. In fifteen minutes the patient complained of his extremities feeling peculiar, somewhat "numb and prickly." His hands assumed a purplish hue, and felt cool. He rose from the bed and attempted to walk, but after going about four feet his legs gave way, and he fell to the floor, though up to this time, in walking, his gait had been good. He complained of great weakness in both legs. He turned to me, and in a husky voice, hardly articulate, told me that these symptoms were due to the drug I had just administered. In a few minutes he again attempted to walk, and after tottering a few feet again fell.

I watched him carefully and noticed that his speech had become confused, markedly difficult, his voice husky. The pulse was 90.

In two and one-half hours, at 11 A.M., his hands had returned to their normal color, his walk was again steady, speech was clear, and his legs "felt all right again." During these hours he at no time felt inclined to sleep. No other drug had been administered. He had had but one half hour's sleep in forty-eight hours, was in great mental distress, and begged to be put to sleep. I gave him morphine sulph., one-half grain, and left him.

I returned at 5 P.M., and found him awake and restless. He had slept one-half hour after the morphine. He saw about him familiar persons with whom he engaged in conversation. In a moment he turned to me, and said that he knew the faces were hallucinations.

I determined to try hyoscine again and see just what the action would be on him. His condition at this time was as follows: Pulse, 96; respiration, 20 and regular; very restless. In walking, his gait was good. His speech was clear and intelligent as a rule. His only hallucinations were when he engaged in conversation with imaginary faces. He was constantly changing his position, starting up and then sitting down.

5 P.M.—Hyoscine hydrobrom., $\frac{1}{60}$ grain, hypodermatically. In a few minutes he attempted to rise, did so with difficulty, and taking one step sank to the floor. He complained of great loss of power in both legs; speech was difficult (inarticulate). Respiration was slightly irregular and labored. His extremities again felt dumb; his hands and face were markedly purplish and dusky. Pulse, 112. No feeling of sleepiness. These symptoms gradually disappeared in three hours without treatment.

At no time had the hyoscine produced a hypnotic effect; the chief effects being motor paralysis, as indicated by loss of power in the extremities, sensory disturbances and impairment of speech, with some circulatory disturbances. I then put the patient on chloral and bromides in large doses, followed by the hypodermatic use of atropine and strychnine, with very favorable results.

This case is of more than passing interest, as it has been very generally stated that in alcoholic mania and in the insomnia of acute alcoholism hyoscine is of the greatest value.

328 West Fifty-seventh Street

A CASE OF MYXŒDEMA—THREE AND A HALF MONTHS' TREATMENT WITH THYROID GLANDS.

By ETHEL D. BROWN, M.D.,
NEW YORK.

The patient whose history follows has been given one or more thyroid glands twice a week since February 14, 1893.

The glands were prepared as follows: All the fat and muscles were carefully removed, the capsule taken off the gland, and then half the amount to be given finely minced; the other part was cut in small pieces, allowed to macerate in two or three drachms of water for half an hour. The juice was then extracted by pressure and filtration through a piece of cheese-cloth, and the juice so obtained was mixed with the minced portion.

The first and second time this mixture was taken a half-drachm of whiskey was added; afterward beef-tea and salt were substituted for the whiskey.

The entire mixture varied in amount from f ʒ j. to f ʒ jss. each time. The patient did not object to the taste, and no unpleasant symptoms followed the administration of the glands.

E. K——, female, aged forty-five years; born in Ireland; a lithographer by trade.

The family history as obtained is not very exact. Her mother died in old age of "old-fashioned decline," one brother died of phthisis, and another of some chronic lung disease—the patient did not know if it was tubercular or not.

The patient considered herself perfectly well until twenty years ago, when she began to suffer from attacks of severe abdominal pain. The physician consulted at this time told her the illness was the result of her occupation.

She worked at her trade as her health permitted until ten years ago, when she had lead paralysis. On recovering from it she was well for five years, and during these five years worked again at her trade.

Five years ago she claims to have had dropsy, which disappeared under treatment at one of the city dispen-

saries, but the patient never felt well enough to return to work.

When first seen by me, September, 1891, the patient merely complained of a feeling of weakness. There was some swelling of the extremities, but no pitting on pressure. The urine was of a sp. g.of 1.008; trace of albumin, but no casts. From this time up to the commencement of the present treatment the symptoms of myxœdema steadily appeared in spite of the fact that the different medicinal treatments were tried.

The following notes were taken the day the first gland was given.

Temperature, 97.6° F.; pulse, 82; respiration, 24. Eyes seemed small, being partially closed by the puffiness of the cheeks; lines about the face were almost obliterated; constant occipital headache; the lips were thick and protruding; there was marked swelling over both clavicles: the skin was dry and rough, and the patient did not perspire at all; the nails were brittle; the hair had fallen out to such a degree that the scalp was plainly visible; the eyelids were almost devoid of eyelashes. The patient had grown much stouter; the legs were apparently swollen, but there was no pitting; there was a small superficial ulcer on the anterior portion of the left leg. The patient walked slowly, with a waddling gait, complained of always feeling chilly, and was cold to the touch. She could not keep awake, and when left undisturbed sat in her chair apparently dozing. She spoke in a slow, hesitating manner, and could neither hear nor see as well as formerly. Her memory was poor, and neither the sense of touch nor that of taste was normally acute.

The urine at times had contained a trace of albumin, but never any casts. Miss Chevalier, Professor of Chemistry and Urinary Analysis at the Woman's Medical College of the New York Infirmary, kindly examined the urine several times, and never found a trace of mucin.

The patient said she felt better when the second gland was administered, February 17th, but no change was noted until March 1st.

At the present time the patient says she has not felt so well in five years. The scalp is covered with a new crop of hair about three-fourths of an inch in length; the eyes seem larger; the lines about the face are visible, and the lips are not protruding. The patient is much thinner, but there is still some fulness over the clavicles. She is able to walk firmly and for some distance without tiring. She feels warm. She can hear and see as well as ever, and seems to be in a fair way of regaining perfect health. The treatment is still continued, and it is still a question if it will not always have to be kept up at intervals.

THE HÆMOSTATIC PROPERTIES OF PUFF-BALL.

By A. L. HALL, M.D.,

FAIR HAVEN, N. Y.

The mention of the surgical uses of puff-ball (lycoperdon giganteum), made on page 783 of the last volume of the Medical Record, recalls to mind my experience with this agent, a part of which I will briefly relate, with the hope that it may prove of some interest.

For a great many years, how long tradition does not say, puff-ball has been successfully employed by the laity as a hæmostatic. In my early boyhood, I occasionally saw the milder forms of hemorrhage promptly controlled by its use. On one occasion, an obstinate flow of blood from an incised finger was quickly staunched by the application of pieces of puff-ball to the cut surfaces, made at the suggestion of an elderly lady who had long cherished its virtues. These lessons of my youth might have never found a useful application in my practice, had it not been for an almost accidental occurrence, as it were, which took place in 1888. At the time named, I was called to attend a case of severe epistaxis resulting from a purpuric condition, occurring at the end of the third week of a typhoid-fever illness, in a young man of good habits. The blood came from the nostrils in heavy streams, and had been in progress for fully one-half hour before I saw him. The nares were douched with ice-water and a strong solution of iron persulphate, and compression was tried without relief. The nares were then plugged, anteriorly and posteriorly, with pledgets of cotton saturated with persulphate of iron, but with only partial success, the fluidity of the blood permitting oozing to occur in spite of these measures. At this moment an enormous puff-ball, more than a foot in diameter, was brought to the bedside, and I determined to make use of it. Removing the anterior plugs, I filled the nares completely with loose pieces of puff-ball, after which I restored the plugs of cotton, when all signs of hemorrhage ceased and did not again recur. The tampons were removed at the end of the second day, and by the end of the third day the nares were opened, the pieces of puff-ball being easily dislodged, its presence in the nares being unattended by any ill results.

In another case, a lady sixty years of age, a profuse and alarming hemorrhage occurred from the anterior and posterior nares, which was promptly checked by filling the lower nasal cavities with puff-ball, the cotton plugs being omitted. Later, the nares were cleansed with douches of hot water and all traces of the puff-ball were thus removed without any unpleasant effects resulting then, or subsequently, from its use.

Recently I tried for nearly thirty minutes before success rewarded my efforts to arrest a free hemorrhage resulting from a tooth extraction, made by a neighboring dentist, which had continued for several hours, and had reduced the patient to the verge of syncope. Applications of ice to the gums, packing the cavity with styptic cotton and puff-ball, and the addition of a ligating compress over the aperture only partially restrained the flow of blood. A more careful search revealed a separation of the gums from the inner border of the lower maxilla in such a way as to lacerate the alveolar branch of the sublingual artery, the blood welling up through the tooth aperture, thus giving the impression that the hemorrhage was due to a rupture ot the inferior dental artery. A packing of styptic cotton and puff-ball into the pocket made by the separation of the soft structures from the bone, quickly and effectually arrested the bleeding. In this case, I observed that the hæmostatic property of the puff-ball was equal to, or even greater than that of the styptic cotton, while it appeared to adhere more quickly and firmly than did the cotton styptic.

In concluding, I would say, that as a hæmostatic for controlling the severer forms of epistaxis, I believe it has no equal. I have such confidence in it for this purpose that I am, now, never without it. I believe that no valid objection can be raised against its use on the ground that it is not sufficiently aseptic, while, on the contrary, it is to be preferred to many other hæmostatics on account of its non-irritating qualities.

Antipyrin in Typhoid Fever.—Dr. Roussel, of the Hôtel-Dieu, St. Etienne, has published a long and interesting article on the treatment of typhoid fever by antipyrin given in increasing doses, thus avoiding all danger of collapse. He commences by ten grains four times a day dissolved in pure, unsweetened water, leaving three hours between each dose. The following day he gives twenty grains, morning, noon, and night. On the third day a drachm is given in four doses, and an increase of twenty grains ordered each day until two drachms are attained, leaving an interval of two hours between each dose. On the outset of the treatment the fever diminishes, but not for long, as it goes up again in spite of the increasing doses, until a drachm and a half of the antipyrin is given, when it abates definitely. No other treatment is ordered save the usual *régime* of typhoid patients. Out of ninety-three patients thus treated, Dr. Roussel did not lose one.—*Medical Press.*

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DR. FREIRE'S OPPORTUNITY.

RECENT advices from Brazil bring word of the continued ravages of the epidemic of yellow fever in Santos, an epidemic which for its protracted duration and the fearful number of its victims is, perhaps, unparalleled in the history of this disease. It is now two years or more since the first reports of the scourge were brought from that fated city, and to day there seems to be no abatement in its fury, the daily mortality still reaching up into the hundreds. The brig Odorilla recently arrived in Philadelphia from Santos with only one surviving member of the original crew, Captain Holland, the others all having succumbed to yellow fever. The vessel was under charter to carry to Santos a cargo of locomotives. When she arrived in that plague-stricken port, on May 25, 1892, she was docked three hundred and forty-two days before the necessary hands could be secured to discharge her cargo.

Captain Holland's descriptions of the misery and sufferings from yellow fever in Santos are heartrending. Thousands have been stricken with the disease and have died. Business was at a complete standstill, and there were forty-five vessels lying in the Santos River without their crews. Anchored near the Odorilla were fully twenty vessels, everyone of which had lost her captain. The London and Brazil Bank closed its doors shortly before the Odorilla left, everyone of its employees having been carried off by the scourge. The Brazilian and South American Bank was compelled to do likewise. The members of the firm of Messrs. Zerener, Bulow & Co., consignees of the Odorilla, have nearly all died.

On March 3d, Charles Wadsworth, the American Vice-Consul, died, and as Mr. Berry, the Consul, was ill with the disease, and all the clerks were dead, the consulate was closed. Captain Holland believes the entire port will in a short time be completely depopulated. While the Odorilla lay at Santos the daily death rate averaged 310. Hundreds of corpses were afloat in the river in all stages of decay. The Government, it is said, has exhausted every means looking toward a suppression of the spread of the disease. Three large hospitals have been erected for the care of those stricken with the fever, and they are crowded to their utmost capacity. The patients die more rapidly than their bodies can be disposed of. No services are ever held over the bodies of any of the unfortunates, and they simply are thrown into long trenches, and barely covered with a shovelful of earth.

Dr. Domingos Freire, a distinguished physician and scientist of Rio Janeiro, who has made a long and painstaking study of yellow fever, claims to have discovered the specific micro-organism of the disease, and has prepared from cultures of this bacillus a preventive vaccine by means of which he believes that he can render unacclimated individuals immune to yellow fever.

These claims have not received general acceptance, and are flatly disputed by many, among whom is Surgeon-General Sternberg, of the United States Army, who has studied Freire's methods in the latter's laboratory and rejects his alleged discovery of the microbe of the disease as unproven. This rejection gave rise to much controversy, less, perhaps, on the part of the principals than on that of their followers, which is even yet unstilled. Dr. Freire has reasserted his claims in a *brochure* published within the past year, and only a few weeks ago an active correspondence was going on in the pages of a contemporary between the friends of one and the other party to the dispute.

It seems to us that here is an opportunity for Dr. Freire to prove the correctness of his theory and the validity of his claims to the discovery of a preventive vaccine, which will be far better and more convincing than the shedding of gallons of ink. Let him induce the Brazilian Government, in an auspicious interval between revolutions, to send him to Santos, with full authority to practise his inoculation upon all who are willing to submit themselves to the experiment, and as drowning men will catch at straws the wretched survivors of the plague in Santos will doubtless be only too ready to take advantage of anything that promises them immunity. Then let Dr. Freire go to the doomed city with his assistants and establish his laboratory there and vaccinate all who come.

If he succeeds in rendering the remaining inhabitants of the place proof against the attacks of yellow fever, the plague will be stamped out and the name of Dr. Domingos Freire will go down the ages along with that of other great benefactors to the human race. And his fame will not be posthumous, but he will have the happiness of hearing his praises sung throughout the world, and honors will be heaped upon him in numbers to satisfy the most ambitious. This is Dr. Freire's opportunity, and our only wonder is that he has not before this recognized it and made it his own.

PULSUS PARADOXUS IN ACUTE LARYNGITIS.

By this term is understood a distinct diminution during inspiration of the tension and height of the pulse wave. At one time it was regarded as distinctive of mediastinal inflammation, but has since been observed in pleural effusion, mediastinal tumors, and aneurisms of the thoracic aorta. Griesinger, who first called attention to it, attributed it to the direct action of newly formed tissue adherent to the sternum and pulling upon the aorta. Jurgensen also, has noted a diminution of the strength of the radial pulse in inspiration during a pneumonic seizure.

Brockbank has recently called attention, in an interesting article,[1] to the occurrence of this phenomenon in children suffering from dyspnœa due to laryngitis, either membranous or simple. In nine cases, he observed it in every instance, provided the laryngeal obstruction was

[1] British Medical Journal, June 24th.

sufficient to cause recession of the intercostal spaces during the respiratory act. As the dyspnœa increased this peculiarity of the pulse became more and more marked, until just before tracheotomy was done in cases requiring it the pulse became almost imperceptible during inspiration. As soon as the trachea was opened and the pulmonary tissue received its due supply of air, the phenomenon disappeared.

Brockbank believes that it is possible by this pulse variation to measure approximately the amount of laryngeal obstruction. It is not necessary, therefore, in a cold room to strip the child's chest to notice the recession. When the symptom becomes more marked without an increase of recession, operative help is indicated.

He does not attach any prognostic value to the pulse in acute laryngeal inflammations, nor does he believe that its variations can be invoked to distinguish between the various pathological varieties of this affection.

The cause of this clinical feature he finds in the great variations of the intra-thoracic pressure on the heart and large vessels. When the chest cavity is suddenly enlarged and the air does not pass through the glottis rapidly enough to fill it, the negative pressure which is always present at the commencement of inspiration is prolonged throughout the entire inspiratory period.

"The manner," he adds, "in which the increased negative pressure in the chest determines the variation in the rhythm and volume of the pulse may be briefly summarized. The blood in the vessels of the body, generally, is subjected to the action of the constant positive pressure of the atmosphere, so when a partial vacuum is created in the thorax there is a tendency for the blood to be aspirated into the great vessels there. This aids greatly the venous circulation of the body, but at the same time must of necessity tend to hamper the flow of blood in the large arteries. The two results to some extent counteract each other normally. The thin-walled auricles are more affected by the aspirating action of the negative pressure than are the ventricles; and here again the venous flow is aided, so that the heart receives a plentiful supply of blood—in fact, the contents of all the great veins and arteries near the thorax tend to flow to the heart.

"The ventricles receive the blood from the auricles, and on contracting, the right side of the heart forces its blood without impediment through the lungs to the left side. It is on the left ventricle that the full force of the extra work falls, for it has to overcome, not only the normal pressure in the arteries, but also the tendency of the blood in the large arteries to flow backward in the direction of the negative pressure. In other words, the heart has to pump blood out of a vacuum into positive pressure. This negative pressure is normally only slight and transient in its effects on the blood flow, but in abnormal conditions, such as laryngeal stenosis or forced inspiratory movement with the mouth and nostrils closed, it is much more marked, lasts longer, and acts visibly on the volume and rhythm of the pulse, producing the pulsus paradoxus.

"It is probable, therefore, that increased work is thrown on the heart in cases of acute laryngitis; and when this important organ is weakened as a result of the pyrexia and of the virus of the disease, it naturally tends to show more signs of failing as the disease progresses."

Finally, he suggests that in children with a flexible sternum and an extreme amount of chest recession, direct pressure on the heart from the retracted sternum may cause the feebleness of the former. It is well also to remember that pulsus paradoxus occurs occasionally in healthy individuals (Riegel), and that it can generally be induced in the latter by the subject closing his mouth and nose and then rather forcibly endeavoring to draw in his breath.

MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION.

In connection with the fact, as stated editorially in the *Journal of the American Medical Association*, that "the total membership of the Association has steadily decreased for the last five years, until it is now fifty per cent. less than it was in 1888," it is unaccountable that a measure, that can only result in further loss of membership, and of a membership of the very highest professional character, should be seriously contemplated; yet at the last meeting an amendment to the constitution was proposed which will have the effect of driving away the entire representation of the Medical Departments of the United States Army and Navy and the Marine Hospital Service. The paragraph in question reads:

"Membership shall be limited to members of the several affiliated State Medical Societies recognized thereby or represented therein. As membership in these societies is open to all reputable practitioners in each State, the membership in the American Medical Association is open to all reputable physicians in North America."

As the three organizations referred to are wholly national in character, and their membership in no sense connected with State organizations, and as the Medical Departments of the Army and Navy have been integral parts of the Association from its very organization in 1846, their members naturally resent, and in this the later organized United States Marine Hospital Service is in hearty accord with them, what many of them feel to be only a thinly disguised attempt to compel them to subscribe to a Code of Ethics which, it has been their boast, has not been necessary to preserve their reputations as honorable officers, gentlemen, and medical men.

THE GREAT ENEMIES OF MAN.

The change in the conception of tuberculosis, produced by a discovery of its true cause, calls for a reconstruction of many of the heretofore approved statistics of mortality. It is not very long ago since text-books stated that tuberculosis, meaning especially pulmonary consumption, affected most often persons between the ages of fifteen and thirty years. The tubercular infection is now known to be most frequent as a cause of death in infancy. At this time it is the mesenteric and other lymph-glands and the meninges that are involved; in childhood the bones are prone to be attacked, in adult life the lungs.

Taking tuberculosis in every form as a cause of death, Professor Hugo Holsti, of the University of Helsingfors, has compiled interesting facts showing the relation of age to this disease.

During the years 1882–1889 there died in the Swede-Finnish district of Helsingfors 1,771 persons, of tubercu-

lous diseases. The mortality rate per 10,000 living persons is much the greatest during the first two years of life (2.5 per cent.). It rapidly falls until, between the ages of six and fifteen, it hardly exists (about .15 per cent.). It then steadily rises until the decades thirty-one to forty, forty-one to fifty, and fifty-one to sixty, where it remains at about .6 per cent. and then falls again.

Males are more subject than females in the proportion of 990 to 781, but this holds true more for adult than infant life.

Professor Holsti's tables show in a striking way identity of the period of greatest mortality from tuberculosis with the time when children are fed on milk.

May it not be that after all the cow is the great enemy of mankind, and that without the cow there would be no tuberculosis? The history of Japan, which is a cowless country, favors in a measure this view. Science seems to be pointing toward the conclusion that there are two great and potent poisons constantly diffused among civilized peoples, and these are milk and water. Not that these substances are essentially bad, but that they are accidentally so. It is not proposed to abolish, but to purify them.

News of the Week.

Anti-Vaccination Cycles and Their Results. — It is curious how these anti-vaccination movements come as it were in cycles. The last great movement was in Germany. Wurtemburg and Baden were the Leicesters of those days, and so effectually did they preach the anti-vaccination doctrine, that it found a ready acceptance in all the populous manufacturing districts. The yearly vaccinations rapidly decreased, and the difficulties in carrying out the regulations became greater everywhere. From Germany the revolt against vaccination spread to Italy, and vaccination held for a time a very questionable position. The victory of the anti-vaccinators was, however, of short duration, for there swept over Germany in 1870, and from thence into other countries, one of the most destructive epidemics of small-pox known in this century, and people learned from a disastrous experience that until more is known concerning the origin of small-pox, the only safeguard is vaccination. The most remarkable outcome of this epidemic in Germany was the disappearance of the opposition to vaccination, and those who had been loudest in its denunciation were among the noisiest to demand a law by which not only vaccination but re-vaccination should be rendered compulsory.—*Indian Medical Gazette.*

What the London Hospital Fund Has Accomplished. —In view of the fact that this year the Hospital Sunday Fund attains its majority, the Lord Mayor has presided over a special meeting of the fund at the Mansion House. It appears from the report of the secretary that since the commencement nearly £700,000 has been obtained, last year's contribution being £41,512. His Lordship credited the happy idea of the fund to the late Canon Miller, of Greenwich; and he pointed out that, large as had been its success, some of the hospitals had been obliged to close their wards for want of means. Cardinal Vaughan stated that more than 1,200,000 persons were treated in metropolitan hospitals last year, at a cost of £677,000, and that 1,741 congregations made collections—a number considerably short of the total in London.

Clinical Teaching at Berlin.—The attempt to induce the Corporation of Berlin to open their hospitals for clinical teaching has not been successful. This is the more to be regretted as the Charité is overloaded and hardly up to the high standard of accommodation for teaching purposes which is recognized as necessary here. The university has splendid buildings devoted to surgery and the diseases of women, and doubtless ways and means will be found before long to give medicine equal advantages.—*British Medical Journal.*

The Philadelphia Quarantine has passed from the control of the Board of Health to that of a Quarantine Board of seven persons. In the constitution of this board, two non-official bodies, the College of Physicians of Philadelphia and the Maritime Exchange, have a voice, each appointing a member. The bill abolishes the double-headed system by which the Port Physician and the Lazaretto Physician took turns, so to speak, at the duties. The useless office of Quarantine Master is also abolished, as is also all payment of fees to the officials, a reform that is highly commendable. The most important feature of the bill, however, is the provision made for the substitution of National for State quarantine. The act empowers the Governor to suspend the whole State system whenever he is satisfied that an efficient quarantine is maintained by the Federal authorities.

Progress in Medical Education.—President Eliot, of Harvard University, in his speech to the Alumni on Commencement Day, announced that the Law School had raised its standard by requiring, after the year 1896, the degree of A.B., S.B., or Ph B., as a prerequisite for admission to its courses. There is already such a requirement in the Divinity School, and President Eliot expressed the hope that hereafter it would be adopted for the Medical School.

Two Little Poems.—

The Cut Direct: "For years he was well known to me,"
So the physician sadly said,
"But now, called to his autopsy,
I am obliged to cut him dead."—*Brooklyn Life.*

His Sorrows: He read for a time with pleasure,
Then he began to grow mad,
He had dropped a tear for the heroine's woes,
And found it a medicine ad.—*Chicago Inter-Ocean.*

Progress of the Cholera.—The outbreak of cholera at Mecca has evidently been very serious, for the total mortality among the pilgrims since early in June last has been upward of five thousand. The severity of the epidemic is stated to have somewhat declined of late, although the number of fresh attacks and the death-rate still remain high. On July 3d, 260 deaths from cholera occurred at Mecca and 490 at Jeddah. These large gatherings of Mussulmans are a recurring source of danger, and the arrangements for them should be placed under Government control, as is done in the case of the great religious fairs and pilgrimages in India. In addition to the evils of dirt and overcrowding, the pilgrims are usually exhausted from fatigue and want of proper food, their

water-supply is probably both bad and inadequate, and there is, speaking generally, an absence of all sanitary and medical arrangements.

The report that cholera exists at Alexandria, in Egypt, is denied. In reply to a despatch of inquiry, Surgeon-General Wyman, of the Marine Hospital Service, received on July 15th a message from United States Consul Ewing, at Alexandria, saying: "There is absolutely no cholera in, or in the vicinity of, Alexandria."

Revoked Charters.—The Board of Regents of the University of the State of New York have recently revoked the charters of the "College of Midwifery of the City of New York," and the "College of Massage," two institutions under the same management.

A Boylston Medical Prize for 1893 has been awarded to Drs. William E. Hughes and William S. Carter, of Philadelphia, for an essay entitled, "A Clinical and Experimental Study of Uræmia."

Treatment of Syphilis by Injection of Blood-serum.—Professor Tomassoli, of Modena, has recently published an article in a Vienna medical paper in which he maintains that he has obtained excellent results by treating cases of secondary syphilis with injections of the blood-serum of the lamb and calf. Thirteen patients were treated by him in this way, and were cured, as he stated, within a few weeks. From two to eight cubic centimetres were injected into the muscles with a Tursini's syringe on each occasion, the total number of injections varying in different cases from six to thirteen. The only obvious effects of injection were slight fever, pain, and local induration.

Immunity in Diphtheria.—The experiments which Behring, in the Institution for Infectious Diseases, and Aronson, in the Laboratory of the Agricultural College, Berlin, are conducting with the object of providing a serum, or a product from serum, which can be used in convenient doses for the treatment of diphtheria, have been attended with a very considerable degree of success; but it appears that there are great difficulties in raising the degree of immunity sufficiently high and at the same time preserving the animals in health. There can, however, be little doubt that sooner or later the zeal and talent of these experimenters or some of their fellow-workers in the same field will be rewarded, and that we shall have, in a convenient and reliable form, a specific remedy against one of the most fatal diseases.

The Successor of Professor Kahler.—At the last meeting of the "Professors' College" of the Medical Faculty of Vienna, Professor Naunyn, of Strasbourg, was proposed as successor to the chair of Medicine, vacant by the death of the late Professor Kahler. Professors Epinger, of Gratz, Chiari, of Prague, and Weichselbaum, of Vienna, were nominated for the vacant chair of pathological anatomy.

Dr. G. Sterling Ryerson, Secretary of the Association of Medical Officers of the Militia of Canada, has been appointed by the Queen an Honorary Associate of the Order of St. John of Jerusalem, for services in connection with ambulance work in the Riel rebellion.

The Medical Department of Columbia College (College of Physicians and Surgeons) will put its four years' course in operation next year. It is gratifying to learn that the percentage of college-bred men who enter this institution increases as the standard of instruction is raised.

Electrolyzing Drinking-water.—There is always something mysterious in the uses of electricity, but the project our city has undertaken, of purifying 120,000,000 gallons of Croton daily by electrolysis is particularly weird. It is all done with a couple of five horse-power dynamos and a 1,000-gallon electrolyzing tank.

Accused of Selling Diplomas in Medicine.—Dr. Walter May Rew, of this city, who has run what he calls the Preparatory College of Medicine, was arrested recently on a warrant accusing him of selling diplomas in medicine at from $25 to $50 each. A large quantity of blank diplomas and seals were found in his rooms. The diplomas, it is said, entitle the holders to practise in several Western States.

Favus is not a pleasant disease, and its importation is not a thing to be desired. Yet it is curious to find our immigration authorities so sensitive in the matter of keeping out favus-stricken immigrants. One case of syphilis or phthisis, or one thorough-going anarchist will do more harm to the body politic than forty cases of favus. For the disease is curable, and it is so conspicuous that the sufferer is generally forced to seek relief. As favus is so often transmitted by dogs, cats, and mice, it might be well to investigate the importation of these animals.

A New Non-poisonous Disinfectant, Izal.—This substance is of English origin, and the *Lancet* for July 1st states that it has been approved by Dr. Klein, biologist to the Brown Institution. It is derived from an oil that appears as a residuum from coke-making at the collieries, especially at those situated at Thorncliffe, near Sheffield. As a destroyer of germs, izal takes a higher rank than carbolic acid, but is non-poisonous, unless the quantity ingested is very large. Extensive experiments in Dr. Klein's laboratory tend to show that one part of izal in two hundred parts of water is capable of destroying the micro organisms of diphtheria, scarlet fever, glanders, erysipelas, and cholera.

The International Medical Congress.—Already twenty-three foreign governments have signified their intention of being represented. Eighty-eight foreign societies are already enrolled, and over three thousand medical men have signified their intention of being present. So that it is estimated that there will be at least six thousand members. Virchow, Charcot, Brouardel, and Nothnage are among those expected.

Dr. E. P. Baker died in Aurora, Cayuga Co., N. Y., June 4, 1893, aged seventy-four. Dr. Baker was graduated at the old Geneva Medical College about the year 1843. His professional life was spent in Cayuga County, and for the last twenty-three years he practised in Aurora, and was physician to Well's College and to the Aurora Academy and Military School. He was a man of singularly gentle and lovable nature, conscientiously devoted to his duties, of high and honorable aims, incapable of subterfuge. He is sincerely mourned by the profession, and the community in which he labored so long.

Report on Cholera.—Dr. W. A. Wheeler, Chief of the Medical Bureau at Ellis Island, who has been for several months investigating the sanitary condition of the

principal European ports from which the United States receive immigrants, came home recently. He states that there is little probability of cholera being introduced into this country, even should it break out again in epidemic form in Europe. The doctor says that in Bremen and Hamburg emigrants bound for American ports are kept under observation, after being washed and having their clothing and baggage fumigated, until the period for the development of the disease has passed. In regard to the appearance of cholera in Naples within the last few days, the doctor said: "I believe it was imported, and I have no doubt that under the present good sanitary arrangements of the city it will be checked." The steamship companies with lines running to Hamburg and Bremen were ably co operating with the German Government and the American consuls to prevent the introduction of cholera through immigrants from Russia. Nearly all the cases of cholera reported this year have been of a sporadic sort. There were several recently in Marseilles. There was a chance of the disease being brought hither in rags, but that has been reduced to a bare possibility by thorough disinfection. Russian Jews, the doctor said, had had trouble getting passage from Hamburg to America, and they were flocking to Rotterdam and Antwerp, where there seems to be less care in the selection of steerage passengers by the steamship companies.

The disease has appeared in Naples within the past ten days. On July 19th Dr. Young, of the Marine Hospital Service, who is stationed at Naples, cabled to Surgeon-General Wyman that four fatal cases had occurred there, and on July 25th sent another despatch saying that the disease still prevailed, and that the condition was growing worse. A large number of emigrants were preparing to sail for America, but owing to the action of the authorities they could not be properly inspected. The Surgeon-General has forwarded instructions to refuse bills of health unless all the regulations in regard to isolation and detention of suspected cases are complied with. The authorities of Naples deny that the disease is true Asiatic cholera, but Dr. Young says that the cholera bacillus has been found in all the cases examined. The disease has also broken out in St. Louis, at the mouth of the Senegal River, the capital of the French possessions in Senegambia, West Africa. The deaths have already reached an average of fifty daily, and a genuine panic prevails among the inhabitants. The disease is spreading among the European residents, three of whom have died. The population of St. Louis is about twenty-eight thousand, of which number about twelve thousand live in the suburbs of the town.

The Spanish Government has set a good example to the authorities in other European countries by instituting a prosecution against the Mayor of Palafurgel, a small town near the Mediterranean, for concealing the existence of a few cases of cholera. Dr. Haffkine is now in India making experiments to determine the efficacy of inoculation in the prevention of cholera. The authorities are offering him every facility for prosecuting his researches. He has already inoculated over two hundred persons at Simla for cholera, including many medical men, high officials, and ladies. Several native Indian States have taken up his system of inoculation, and it is used at Agra, Delhi, and Lucknow. In one British regiment over four hundred men have been inoculated.

Dr. Egbert Guernsey, Jr., died on July 25th, at Fishkill-on-the-Hudson, from pulmonary hemorrhage. He had been ill for some time, and was living at his father's country residence. He was thirty-two years old.

The Iowa State Board of Medical Examiners has passed the following resolution in reference to the recogdition of medical colleges:

Whereas, A number of medical colleges in the United States and Canada have adopted and require a four years' graded course of medical lectures as a condition of graduation, and others have expressed the determination to do so; therefore,

Resolved, That after July 4, 1898, no medical college shall be recognized by this Board as "of good standing" within the meaning of Section 1, Chapter 104, Laws 1886, that does not require as a condition of graduation four graded courses of medical lectures of not less than six months each—no two of which said courses shall be within the same calendar year. That graduation from any college of Dentistry, and Veterinary Medicine, or of Pharmacy, upon a satisfactory examination in anatomy, recognized by this Board as of good standing, may be accepted as the equivalent of the first year's course of medical lectures by colleges requiring as a condition of graduation the graded courses above specified.

Visitors to the Pan-American Congress.—Dr. Ernest Hart, Editor of the *British Medical Journal*, and Professor Dr. Czerny, of Heidelberg, will be among the guests of the Pan-American Medical Congress. The latter is booked for the Pan-American excursion to Rome by the Werra.

Official Delegates to the Pan-American Medical Congress.—Practically, all of the Governments have appointed official delegates to the Congress in response to the invitation by the President of the United States. The United States Government will be represented by six delegates. The larger cities of all the Latin-American countries have appointed delegates to participate in the proceedings of the Sections on Hygiene, Climatology, and Demography, and on Marine Hygiene and Quarantine, and similar appointments will be made by the cities of the United States. Seventy six similar delegates have so far been appointed by the Governors of States in the United States. A large number of delegates have been chosen by the medical colleges of the United States and other American countries, to attend the Section on Medical Pedagogics, under the Presidency of Professor J. Collins Warren, of Boston.

A Section on Materia Medica and Pharmacology has been organized under the Executive Presidency of Professor Joseph P. Remington, of Longport, N. J., with Professor F. G. Ryan, 3739 Brown Street, Philadelphia, as English-speaking Secretary. The work of this Section promises to be very interesting. Delegates have been invited from the pharmaceutical societies and colleges in all the Americas. Those contemplating the preparation of papers on pharmaceutical topics, are requested to send the titles at once to the Secretary.

At the Beginning of the Present Year there were no less than two hundred and ten medical journals published regularly in Paris.

Society Reports.

AMERICAN OTOLOGICAL SOCIETY.

Twenty-sixth Annual Meeting, held at the Fort Griswold House, New London, Conn., July 18, 1893.

MORNING SESSION.

THE Society was called to order by the President, Dr. Gorham Bacon, of New York.

The Comparative Anatomy of the Ossicles.—The first paper was one with this title, read by DR. LUCIEN HOWE, of Buffalo, N. Y. As comparative anatomy frequently gives important hints concerning the function of different portions of our bodies, the author had examined various works on comparative anatomy for facts in regard to the ossicles in various animals. Finding that very little had been done in this direction, he had made some effort to obtain the ossicles from animals of widely different species. Attention was called to the following peculiarities, which had been noted in these observations:

1st. As to the processus longus of the malleus, concerning which there is some difference of opinion. Gruber has described this process as bony in early life, considering that later it degenerates into connective tissue, and is then to be regarded as a ligament. A study of comparative anatomy appears to indicate that this is the true view, for in one or two we find the long process persisting as a true bone.

2d. Concerning the malleo-incudal joint. Helmholtz has described this joint with much detail, and holds that in the human being rotation in one direction is practically unlimited, while in the other direction it is suddenly arrested. These observations have been verified by the author in the orang and some of the higher air-breathing animals.

3d. It is worthy of note that the form of the hammer and anvil differ very greatly not only in different genera, but also in individuals of nearly allied families. On the other hand, the stapes is remarkable in having almost always a certain approach to the stirrup form.

The author presented these observations on account of their possible intrinsic interest, and also with the hope that future observations may throw light on certain obscure questions regarding the physiology and pathology of the bones of the middle ear.

The Strongly Counter-irritant Effects of the Usual Mastoid Operation, was the title of a paper read by DR. ALBERT H. BUCK, of New York. (See p. 129.)

DR. SAMUEL THEOBALD, of Baltimore, said that the view of Dr. Buck was borne out by many cases in which the mastoid is opened and no pus found, and in which pus does not subsequently make its appearance, but yet the case is greatly benefited by operation. These cases sustain the view that much of the benefit is due to the counter-irritant effect.

DR. H. KNAPP, of New York, did not clearly understand what was meant by the revulsive or counter-irritant effect of the operation. In many cases there is simply a congestive mastoiditis. At the operation nothing but blood is found, but the result is almost always satisfactory.

In regard to the extension of the suppurative process to the brain, the speaker believed that when we destroy the source of the suppuration we act beneficially upon the extension of it. He thought that in many cases when the mastoid was opened, the cranial cavity opened, and the lateral sinus and jugular vein explored, a great deal of the good effect might have been obtained by simple opening of the mastoid without such extensive operation, especially if there is no great septic condition.

Extensive Caries and Necrosis of the Temporal Bone of a Child.—Mastoid Operation.—Death from Exhaustion and Hemorrhage.—DR. HERMAN KNAPP, of New York, read the paper. The patient, a feeble, anæmic child, came under observation April 28, 1893. For a few months there had been copious and offensive otorrhœa of the left side. The mastoid region was swollen and soft, but no fluctuation was present. May 1st the mastoid was exposed; there was no sub-peritoneal collection of pus. The outer table of the mastoid was removed, with the exposure of a large cavity filled with necrosed bone and granulations bathed in pus. This was removed and the cavity packed with corrosive sublimate gauze. The child improved to some extent, but there was no tendency to repair. Some time later, and a week before death, the probe revealed that the posterior wall of the bony portion of the external ear canal had begun to loosen itself, but it was too firmly attached to permit extraction. On July 3d the ear was carefully probed. This was followed by escape of some dark blood, as had occurred at previous examinations. The wound was dressed and the child went home. During the night there was a continuance of the bleeding, and the child died the following morning. It was impossible to obtain an autopsy. The amount of blood lost did not seem great enough to have caused death; but in the precarious condition of the child it may have hastened the fatal result.

A Case of Chronic Middle-ear Suppuration, with Grave Brain and Lung Complications.—Opening of the Mastoid and Wounding of Lateral Sinus.—Complete Recovery.—Dr. Knapp, of New York, also reported the following case: On December 22, 1892, Mrs. H——, aged thirty-eight, came under observation, complaining of pain, discharge, and deafness in the left ear. There had been occasional attacks of inflammation during the past year. The upper posterior part of the drum membrane was red and bulging, and there was a large perforation in the lower part. There was also catarrhal rhinitis. Appropriate treatment was advised, and during the next three months the condition fluctuated considerably. On three occasions the condition became so aggravated that exploratory operation was decided on; but on each occasion sudden improvement occurred and operation was not done.

March 27th.—The disease took a more serious turn. There was pain in the head, and swelling and tenderness of the mastoid, and pain on percussion about two inches back of the ear. Operation on mastoid was advised, but delayed at the request of the patient on account of the advent of menstruation.

April 13th.—There was severe pain in the head, delirium, with chill and vomiting, and complaint of discomfort in the chest. Pulse, 120; respiration, 30; temperature, 104° F. There was no discharge from the ear. The mastoid was red and tender. The optic disc was hyperæmic and swollen. There were no physical signs of involvement of the lung. The possibility of the lung complication being due to the ear disease, led to operation on the mastoid. No pus or diseased bone was found. The bone was softer and more vascular the deeper the operation went. Chiselling still deeper, there was a sudden gush of dark blood. This ceased after a minute's pressure, and the cavity was packed with corrosive sublimate gauze. The ear showed no reaction, but for a week the patient was in a critical condition from the lung complication, which was declared to be a pleuro-pneumonia. From the ninth day after operation the patient improved steadily and made a complete recovery. In reviewing the case, it was thought that the otic disease was the origin of the difficulty, and that the inflammation passed into the skull through the roof of the drum cavity.

DR. J. ORNE GREEN, of Boston, thought that in some cases where hemorrhage is attributed to opening of the lateral sinus the blood does not come from that source. He had had two cases in which he satisfied himself that the free escape of blood did not come from the lateral sinus. A probe demonstrated a cavity with complete bony wall. The great hemorrhage in these two cases was attributed to the opening of a large diploic vein.

Autopsies in Two Cases of Complicated Middle-ear Disease.—DR. T. Y. SUTPHEN, of Newark, N. J., reported the following cases:

Case I.—Man, aged thirty, had immense abscess involving the left mastoid region. This was opened. There was a long history of middle-ear suppuration. Two days later, when the author first saw the case, the mastoid was found extensively carious. During the next few days the patient became worse, with development of cough, elevated temperature, and dulness over right side of chest. In a week he died in coma.

Autopsy showed an abscess canal outside of dura mater, extending to the cerebellum, where it penetrated the dura and ended in abscess in the brain tissue, having adjacent to it other spots of softened tissue. There were also the lesions of a septic pleuro-pneumonia.

Case II.—Case of right middle-ear inflammation lasting several weeks. For ten days there had been severe headache on the right side. No swelling or tenderness over mastoid. No paralysis. Three days later the patient became comatose, with temperature of 104° F. The following day the mastoid was opened, but no pus was found. The patient died the next morning.

The autopsy showed no communication between the mastoid and the cranial cavity. The meningeal space contained a quantity of sero purulent fluid. The right lateral sinus contained a large softened clot communicating with the meningeal cavity. The entire meningeal surface of the cerebellum was bathed in pus. No abscess was found in the brain substance.

Fatal Thrombosis of the Lateral Sinus, with Autopsy.—Dr. Emil Gruening, of New York, reported the case of a woman, aged thirty-eight, who had had occasional discharge from the left ear for six years. Two months before coming for treatment profuse discharge set in and continued. There were two perforations in the drum membrane, and the mastoid region was red, swollen, and œdematous. The ordinary mastoid operation was done, and pus and granulation tissue found. The lateral sinus was exposed, but it did not pulsate. Four days later pyæmic symptoms manifested themselves, with marked and sudden variations in temperature. There were also evidences of lobar pneumonia. The patient died, and autopsy revealed pneumonia and thrombosis of the lateral sinus.

The Statistics of the Aural Department of the Massachusetts Eye and Ear Infirmary were presented by Dr. Clarence J. Blake, of Boston. They were for the three months, April, May, and June, 1893. The total number of patients seen during this time was 7,685. Of this number 1,414 were new patients. The cases were classified in tabular form, according to the disease present, under the following heads: 1. Morbi auris externæ; 2, morbi auris mediæ; 3, morbi labyrinthi et acustici; 4, morbi nasi et naso-pharyngis, and morbi et operationes. The total number of operations done was 208.

Detailed reports of a number of the more interesting cases were given.

AFTERNOON SESSION.

Dr. J. Orne Green, of Boston, exhibited a large number of pathological specimens of ear disease, and gave reports of the cases.

Stapedectomy and Other Middle-Ear Operations was the title of a paper by Dr. Clarence J. Blake, of Boston. During the past year the author had investigated the question of the possibility and advisability of the extraction of the stapes in chronic non-suppurative disease of the middle ear. As a result of the investigation the following conclusions seemed justified: That in those cases of non-suppurative disease of the middle ear, with a high degree of deafness, the operation of stapedectomy is most likely to be futile, because of the degree of fixation of the base of the stapes leading to fracture of the crura in the attempts at removal.

That in the class of cases where stapedectomy has apparently given the best results, viz., fixation of the stapes as a sequence of chronic suppurative disease, it is by no means certain that equally good results could not have been obtained by surgical mobilization and subsequent care.

That while removal of the stapes is by no means so hazardous a procedure, it still opens up the possibility of interference to an unknown degree with the most important part of the organ of hearing, and an almost equally important peripheral organ of equilibrium.

In order that the operator might, in the non-suppurative cases, avail himself of the co-operation of the patient, and apply, in the progress of the operation, a series of hearing tests to determine the location of the principal obstacle to sound transmission, and determine the extent to which surgical interference was advisable, the plan of "exploratory tympanotomy" was devised. The speaker prefers, when possible, in cases of non-suppurative disease of the middle ear, to begin with exploratory tympanotomy, which is an operation without general anæsthesia, leaving it to be determined by the examination and tests made during the operation as to whether the stapes can or shall be removed or not. In suppurative cases he prefers first doing synæchtomy, tenotomy, and crural circumcision, with, if necessary, the additional application of an artificial drum, allowing a proper time limit for the determination of the effectiveness of these procedures before submitting the patient to the final operation of stapedectomy.

Observations on the Removal of the Stapes.—Dr. Frederick L. Jack, of Boston, presented a paper supplementary to one he had read at the last annual meeting. Since bringing the matter before the Society last year, the operation had been tried in thirty-two additional cases. These, with the sixteen previously reported, furnish forty-eight cases for observation and study. In reviewing the cases there is much to encourage the adoption of the procedure, but its clinical application will require modification.

The following conclusions were presented:

1. The operation is followed by the best results in the class of cases where, from the increase of time, the effects of suppuration, or hypertrophic inflammation, the stapes offers an obstruction to sound waves; by its removal the hearing is improved. The results in cases of otitis media chronica insidiosa, on account of failure to extract the foot-plate, are not encouraging.

2. Inflammatory reaction is unusual, and followed by no bad results.

3. The hearing is not necessarily impaired by the subsequent growth of a thin cicatricial membrane over the fenestral niche.

4. Some cases of tinnitus and aural vertigo are relieved, and there is little chance of causing permanent vertigo in cases where it had not previously existed.

5. It rarely happens that a patient improves for all tones. Improvement in hearing the human voice was out of proportion to the improvement for other sounds, and the reverse sometimes occurred.

6. Failure of success in some cases may be due to hemorrhage into the labyrinth at the time of the operation. It is believed to be a rare complication, but was thought to have occurred in one or two cases.

7. In removing the various ossicles, the stapes, if found diseased, should also be removed.

The Surgical Treatment of So-called Ménière's Disease (Aural Vertigo).—Dr. C. H. Burnett, of Philadelphia, maintained that the name, "Ménière's Disease," is inaccurate and unjust. It is inaccurate, because it is indiscriminately applied to all forms of aural vertigo, regardless of the seat of the otic lesion; whereas Ménière attempted to prove the existence of a disease of the semicircular canals as the only cause of aural vertigo—an entirely untenable hypothesis.

The name is unjust, because Flourens in 1822, and Deleau in 1836, described aural vertigo more accurately than Ménière in 1861, and Deleau came much nearer than any previous observer to the solution of the origin of aural vertigo in placing the cause in lesions of the middle ear. Ménière's observation of a case of aural

vertigo, in which, owing to the sudden death of the patient, he is said to have made a post-mortem examination of the temporal bone, revealed nothing more than any roughly- and rapidly-made dissection of this bone would do—viz., pinkish serum in the semi-circular canals. It proved absolutely nothing as to the cause of aural vertigo observed before death, and has led to great confusion in diagnosis and error in treatment of ear-vertigo. In fact, there is no such phenomenon as "Ménière's Disease," as commonly spoken of by the general profession.

Aural vertigo, on the other hand, due to lesions in the middle ear, is of very frequent occurrence. It is often not recognized, especially by the general practitioner, as aural vertigo, nor even as the so-called Ménière's disease, in which, to say the least, the cause of the vertigo is placed in the auditory apparatus. It is not unusual for aural vertigo to be attributed to intestinal disturbance, or to neurasthenia, instead of to an aural lesion. Hence, the diagnosis being erroneous at the outset, the treatment is wrong and the patients do not recover.

True aural vertigo, due to a lesion in the middle ear, chiefly from chronic catarrh of the tympanic cavity, is paroxysmal in character, and attended with tinnitus and deafness in the affected ear. It is caused by the inward pressure exerted upon the labyrinth-fluid by the retracted and ankylosed ossicles. The foot-plate of the stapes is thus unduly pressed into the oval window and there held by the above-named forces, paroxysmally and for longer or shorter periods.

The treatment consists in removing the retractive force and liberating the stapes, preferably done by the surgical removal of the incus. This bonelet, the incus, which in its relation to the other two auditory ossicles may be likened to a keystone in an arch, when removed, destroys the so-called arch, and the retractive and impacting power of the malleus can never again be exerted upon the stapes. This liberates the stapes, which furthermore is now pulled outward by the stapedius muscle, relieved of the antagonism of the tensor tympani.

Regarding the removal of the stapes from the oval window, it may be said that it does not seem that this operation is necessary for the relief of deafness or of aural vertigo, according to Dr. Burnett's experience. Liberation of the stapes, and not its entire removal, is all that is necessary in most cases. If the stapes be the "key to the situation," as it may indeed be, it seems wise to leave the key in the key-hole—the oval window.

That it is the liberation of the stapes in the oval window that effects the cure in aural vertigo, would seem to have been demonstrated by a case reported by Dr. Burnett in 1888, at which time the explanation of the *modus operandi* in such cases was suggested by him.

Notes of several cases in which tinnitus aurium and aural vertigo had been entirely cured by the surgical removal of one or more of the auditory ossicles, were recorded in the paper.

On the Difficulty of Operation in the Depths of the Ear Canal.—Dr. Robert Barclay, of St. Louis, read a paper with this title, and presented a description and drawing of new instruments for surmounting the difficulty. Deep operations within the ear have recently been found to have a much wider application than was previously supposed. The indications for such operations have already been formulated, and their technique already elaborated by Drs. Sexton, Burnett, Blake, and Jack. The problem which still remains unsolved is how to overcome the difficulties attending the performance of these operations. The difficulty is in large part due to the peculiar conformation of existent instruments—specula and shafts of blades. To obviate the objections belonging to the ordinary aural specula, the writer's new speculum for operations has been designed. This consists of two parts—a tube and a handle. The tube represents the inner portion of the ordinary speculum divided obliquely at two-fifths its distance from the outer rim. The handle is detachable and is made in three forms: like a spoon-handle, fixed to the tube dipper-shaped; like an imperfect ring, or like a split tailors' thimble. By means of the handle, the instrument is held in place by the finger or thumb, the rest of the hand being free. By dispensing with that portion of the speculum that projects beyond the intertragal notch of the ear, this instrument allows a hand rest for steadiness, and a maximum of shortening and of movement of instruments in operations within the ear.

Cases were cited where difficult, delicate, and dangerous operations had been done through this speculum. One was that of a large exostosis one half inch thick, lying within an eighth of an inch of the drum-head, which was removed, the drum-head escaping all injury. Another, that of an artificial auditory canal, one-quarter of an inch in diameter, bored through a complete bony septum five-eighths of an inch thick.

The necessity for the most delicate and accurate manipulation of instruments in operations upon the deeper parts of the ear, and the difficulty of satisfying it with instruments having the shaft and handle of existent patterns straight, once bent, or twice bent, with extremities parallel, had led the author to devise a shaft and handle so proportioned as to combine the desirable features of those already in use, without their defects. The essential features of the instrument are that the aluminium handle is of dimensions and weight most favorable to delicate and accurate manipulation; it is twice bent, the long axis of the handle passing directly through the operative extremity of the operating shaft. The lateral shaft, joining the handle to the operating shaft, is of length only sufficient to permit the greatest illumination and vision along and beyond the operating shaft. The operating shaft is of the smallest dimensions possible, and is at right angles to the lateral shaft.

The instrument is made in two forms. In one the handle and shaft are in one piece, in the other, the instrument is in two parts and separable, and interchangeable blades of such extremities as may be desired may be secured to the handle.

The author expressed the hope that those improvements will be of aid to inventors, and also stimulate research in this field of aural surgery, while rendering more generally available the resources in the operations designed by Drs. Sexton, Burnett, Blake, and Jack.

Aural Reflex of Unusual Character Due to Impacted Cerumen.—Dr. Samuel Theobald, of Baltimore, related the case of a woman about forty-two years of age, the mother of a large family and of a non-nervous temperament, who had suffered for six months with an annoying cough and with spells of inability to swallow food. These symptoms increased in severity, and it was noticed that any manipulation of the right ear brought on the attack. A plug of cerumen, which probably had been forced down upon the tympanic membrane by unsuccessful attempts to remove it, was discovered in the right ear. It was removed by syringing, and all the unpleasant symptoms at once disappeared. Ear-cough is, of course, of not infrequent occurrence, but spells of inability to swallow due to reflex aural irritation are rare. Burnett, in his work upon the ear, states that both Senac and Jissot have described cases of this character.

The Statistics of Ear Disease.—Dr. B. Alex. Randall, of Philadelphia, presented a tabulation of the five thousand cases of his past four years' work in illustration of some points of the statistical reports of practice, the nomenclature being practically that offered by Dr. Spear, and the grouping into columns, giving the ear affected, the sex of the patient, and whether adult or child. In its explanation, he urged the report according both to diseases and individuals, with such subdivisions as given, and that the attempt should be made to give the therapeutic results, as being a good aid to progress in treatment. The more elaborate the report made, the more it would compel fulness and accuracy of record, and thereby prove increasingly instructive to the practitioner himself as well as others.

Dr. Gorham Bacon, of New York, exhibited a new form of incus hook devised by his assistant, Dr. Hewit.

A paper entitled "A Contribution to the Brain Surgery of Ear Disease," by Dr. Thomas R. Pooley, of New York, was read by title.

The following gentlemen were elected to membership: Dr. Eduard B. Dench, of New York; Dr. William Cowen, of New York; Dr. John L. Adams, of New York; Dr. Eduard Fridenberg, of New York; Dr. W. H. Wilmer, of Washington, D. C.

Election of Officers.—The officers for the ensuing year are: *President*, Dr. Gorham Bacon, of New York; *Vice-President*, Dr. Arthur Mathewson, of New York; *Secretary* and *Treasurer*, Dr. J. J. B. Vermyne, of New Bedford, Mass.

The Society then adjourned.

THE NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 10, 1893.

H. P. Loomis, M.D., President, in the Chair.

Accessory Liver and Pancreas.—Dr. J. S. Thacher, showed a pancreas completely encircling the duodenum, and causing slight stricture of its canal. Just above the duodenum was an accessory pancreas, a specimen of which was shown under the microscope. Dr. Thacher also presented an accessory liver, two inches in diameter and one-fourth of an inch in thickness, which had been found by Dr. G. A. Tuttle at an autopsy. It was situated on the surface of the spleen and intimately attached to it, and was entirely disconnected from the liver. Microscopical examination showed typical liver tissue.

Dr. T. M. Prudden remarked that he had seen, during the past winter, an accessory pancreas situated in the lesser omentum.

Dr. George P. Biggs said that he had found an accessory pancreas situated in the muscular and submucous coats of the duodenum, about one-half inch from the pylorus.

Pachymeningitis Hemorrhagica Interna—Intercurrent Diseases in General Paresis.—Dr. E. D. Fisher presented microscopical specimens showing pachymeningitis hemorrhagica interna. They were taken from a negro, forty years of age, who was suffering from general paresis. There was an old tubercular cavity in one lung. The speaker said that he desired to call attention to the case, 1, because it is generally stated that general paresis is comparatively rare among negroes and Irish; and 2, because it showed the insidious way in which acute intercurrent diseases develop in general paretics. As a matter of fact, general paresis is as common among the two races mentioned as among others, provided their surroundings and mode of life are favorable for its development. Acute intercurrent diseases also change the course of the mental trouble, the mental symptoms returning after the subsidence of the acute disease. It should be an invariable rule to make a careful physical examination of the heart, lungs, and other organs in such subjects.

Primary Carcinoma of the Liver, with Multiple Secondary Deposits.—Dr. George P. Biggs presented a liver containing multiple new growths. It had been removed from a man, forty-two years of age, who was admitted to the hospital late one evening, and who died before morning. As a consequence a complete history was not taken, and only a hurried physical examination was made. He had had pain in the right side for three or four months, and had been steadily emaciating, but there had been no gastric symptoms, and he was only slightly jaundiced. A nodulated tumor could be very distinctly felt in the abdomen, filling nearly its entire cavity, and on auscultation there was distinct friction over the tumor. A diagnosis was made of carcinoma of the liver. At the autopsy the tumor was found to be an enlarged liver, the lower end of the right lobe being in the right iliac fossa, and the fissure between the two lobes being situated considerably to the left of the median line. The organ measured 29 ctm. vertically, 31 ctm. transversely, and 12 ctm. in thickness, in the upper portion of the right lobe. Its weight was twelve pounds twelve ounces. The liver was everywhere studded with innumerable growths, yellowish, greenish, or white in color in the fresh state, and varying in size from a pin-head to a hen's egg. A careful search for a new growth to explain the condition found in the liver resulted only in finding three lymphatic glands at the transverse fissure, which were about 1½ ctm. in diameter, and evidently contained tumor tissue. About two inches below the lower end of the right lobe of the liver was a circular scirrhous growth, about 7 ctm. in diameter, which was evidently the oldest growth in the liver. The specimen exhibited under the microscope showed the new growths to be carcinomata. The large growth referred to was probably the primary one, and the secondary deposits were probably disseminated through the liver through the medium of the biliary passages.

Primary carcinoma of the liver is very rare, but is spoken of in three forms, viz.: 1, A single nodule, usually in the right lobe; 2, a diffuse infiltration of the whole liver; and 3, small nodules along the course of the portal vein. No mention is made in the first variety of the existence of secondary deposits.

Syphilitic Deposits in Liver and Lung—Cerebro-spinal Meningitis.—Dr. Biggs next presented the liver and lungs removed from a man who died of cerebro-spinal meningitis. There were numerous adhesions over the surface of the liver, a large number of cicatrices, and a general increase in the fibrous tissue, with considerable fatty change. The left lung showed a peculiar increase in the fibrous tissue throughout the lower two-thirds of the lower lobe, and also through a portion of the upper lobe, so that in the fresh state it felt almost solid. The fibrous tissue was very tough; there was no crepitation, and practically no aëration of this portion of the lung. There were no cicatricial bands on the surface. The opposite lung presented the same general appearance.

The brain and a portion of the spinal cord from the same patient were also exhibited. They were chiefly of interest on account of the very extensive involvement of the choroid plexuses. The exudation over the base was very thick, while there was scarcely any on the convexity. The lateral ventricles were both distended with purulent fluid, and a similar fluid was found in the fourth ventricle. The same abundant exudation which was found on the choroid plexuses also extended down the whole spinal cord. The patient lived twelve days after developing symptoms of cerebro-spinal meningitis, and during all this time the disease was very active. This may explain the abundance of the exudation. The speaker said that out of ten recent cases, this was only the second in which the exudation had been so especially marked over the base as compared with the convexity.

Diphtheritic Vaginitis.—Dr. Biggs also presented a specimen of extensive diphtheritic vaginitis. The patient was admitted to Bellevue Hospital with the statement from her attending physician that she was suffering from alcoholic neuritis. This diagnosis was confirmed. On the third day after admission the nurse noticed an offensive vaginal discharge, and examination showed the vagina to be the seat of a diphtheritic inflammation. Her temperature on admission was 99° F. in the morning and 104° F. in the evening, and this continued for six days, when the evening temperature rose to 105° F. For about twenty-four hours before death she had had a profuse diarrhœa. The woman was not in a condition to give a reliable history. Her friends stated that she was a married woman, and that she had been sick for about three weeks previous to going to the hospital. The case was peculiarly interesting in view of the fact that the uterus and appendages were perfectly normal. The entire vagina was covered by a very marked yellowish diphtheritic membrane, but there was no ulceration or stripping off of the membrane. It was limited above by the internal os. She was under observation for eleven days, but nothing abnormal was observed about the throat. At the autopsy it was found that the lower part

of the rectum was the seat of a recent diphtheritic inflammation. There was also a fairly advanced tuberculosis of one lung and a slight chronic diffuse nephritis.

A Case of Cerebro spinal Meningitis, with Strange Urinary Symptoms.—Dr. Herman M. Biggs presented specimens from a case of cerebro-spinal meningitis which was admitted to his ward on the night of May 3d. The patient did not feel ill until noon of that day, then he rapidly became delirious, and at midnight was admitted to the hospital in a comatose condition, and had a temperature of 104° F. The temperature varied between 103° and 106° F., up to the morning of May 7th, when he died. The first specimen of urine was examined on the day following his admission, and it was found to contain a good deal of blood, which, on standing, readily subsided to the bottom of the vessel. The clear portion contained considerable sugar. The next day there was apparently a much larger quantity of blood in the urine, but intimately mingled with it. Microscopical examination, however, showed only a comparatively small number of red blood-corpuscles. The urine no longer contained sugar. He continued to excrete a considerable quantity of urine of this character up to the time of his death. At the autopsy his bladder was found distended, the wall thickened, and the mucous membrane the seat of innumerable hemorrhages, and of some superficial erosions. In some places there was a delicate deposit of fibrin on the surface. The process had apparently extended up one ureter and involved the pelvis of that kidney, while the urine in the pelvis of the other kidney was perfectly clear and free from blood. The other lesions were those of cerebro-spinal meningitis, there being an extensive deposit over the base of the brain, and the posterior surface of the spinal cord, chiefly, however, in its lower portion.

The clinical history of this case would lead one to believe there was in addition to the glycosuria, which is occasionally found with cerebro-spinal meningitis, a hæmoglobinuria, but the absence of blood or blood-coloring matter from the urine found in one kidney at the autopsy would seem to exclude hæmoglobinuria, and the condition of the bladder would indicate that this organ was the source of the hemorrhage. A few petechial hemorrhages were found in the pleura, and in several places where the skin had been abraded there was a marked tendency to hemorrhage.

Lympho-sarcoma of the Retro-peritoneal Glands, Mesentery, and Intestine.—Dr. H. M. Biggs also presented specimens from a case of lympho-sarcoma. The patient's statements were found not to be reliable, but as nearly as could be ascertained he was perfectly well up to last January, at which time he took some medicine for worms which produced a very profuse catharsis. Soon after this his abdomen became distended and tender, his bowels constipated, and he suffered considerably from colicky pain. On admission he was jaundiced, the abdomen was distended and tympanitic, but not very tender, and the abdominal wall on the right side was thick and hard, and several small nodules could be felt in the substance of the wall at its lower portion. His temperature rarely rose above 100° F. High enemata, saline cathartics, and other similar measures failed to open his bowels, and after being in the hospital for one week it was thought advisable to do an exploratory laparotomy. On opening the abdomen the peritoneum everywhere was found to be intensely injected, and the abdominal wall enormously thickened and the seat of a new growth. Near the junction of the jejunum and ileum, and also at a point higher up, new growths were found, and the retro peritoneal glands and mesentery were similarly involved. Further operative measures were therefore abandoned. The patient died on the following day. Microscopical examination of sections from one of the masses found in the intestinal wall, and from the retro-peritoneal glands, showed the new growth to be a lympho-sarcoma, which apparently began in the retro-peritoneal glands and extended thence to the mesentery and intestinal wall. It involved the mucous membrane and submucous tissue, and also slightly the muscular tissue of the gut.

Dr. J. S. Thacher recalled a similar case he had seen, in which there was extensive infiltration of the mesentery and of the intestine near the head of the pancreas, but which did not involve the pancreas.

Arthritis of the Knee.—Dr. Thomas H. Manley exhibited a knee-joint which had been removed from a young woman. She had a good family history, and denied having had gout, rheumatism, or syphilis. On January 12th she contracted a severe cold, and two days later first began to have pain about the left knee-joint. On February 1st it was swollen and acutely inflamed, and her attending physician thought she was suffering from acute articular rheumatism. On March 27th she was admitted to the Harlem Hospital, and at that time had a pulse of 108, and a temperature of 101° F., and a physical examination showed a slight consolidation at the apex of the left lung. She was profoundly anæmic and prostrated, and her general condition was such that a serious operation was considered unadvisable. There was a small fistula at the inner side of and below the knee, and evidence of insufficient drainage, so better drainage was secured, but without resulting in relieving the pain or in any general improvement. Her condition became steadily worse, and finally was so critical that it was decided to amputate the limb. The operation was done on April 19th. Before the operation her pulse was 160, respirations, 44, and temperature, 105° F., yet on the following day her temperature had fallen to normal, and from that time on she rapidly improved. The case was considered at first to be one of tubercular disease of the knee, but he had learned subsequently that the patient had been quite dissipated, and that there was some reason for believing that she may have had a gonorrhœal arthritis. The speaker also briefly alluded to a case of arthritis of the wrist which developed shortly after confinement. Here the child had gonorrhœal ophthalmia, and the husband admitted having had gonorrhœa six weeks before the confinement.

Dr. R. H. Sayre said that from a cursory examination of the specimen, without making a section of the bone, he would look upon the case as one of purulent arthritis. There was apparently no evidence of tuberculosis. He thought if the joint had been opened thoroughly and cleaned out at an earlier stage amputation might have been avoided.

The specimen was referred to the Microscopical Committee for examination.

Tubercular Empyema — Amyloid Degeneration — Acute Miliary Tuberculosis.—Dr. F. Ferguson presented gross and microscopical specimens of amyloid degeneration. The microscopical specimens were prepared by immersion in a 1,500 watery solution of the dahlia stain, then thoroughly washing in water, and mounting in a very weak solution of acetate of potash. The liver from this case was very much enlarged, and an examination of some frozen sections of it showed apparently, in addition to the amyloid degeneration, a few tubercles. The kidneys showed a few tubercles and amyloid degeneration, which in the cortex was confined almost entirely to the arteries and in the pyramids to the tubes. There was a history of some thoracic trouble having existed for nine months, and at the autopsy there was found to be a tubercular empyema, and also a tubercular peritonitis.

Extensive Cerebral Hemorrhage—Cardiac Hypertrophy without Dilatation.—Dr. Ferguson also presented specimens from a case of extensive cerebral hemorrhage. The man was brought to the hospital about ten hours before death. He had a slow and strong heart action; tremor, more marked on the right side, and shortly before his death he had Cheyne-Stokes respiration, and one severe convulsion. A diagnosis was made of apoplexy. An examination of the brain showed the hemorrhage to be unusually extensive; the septum lucidum had been destroyed; the third and fourth ventricles were filled with blood, and the hemorrhage had made its way to the surface, so that at first it looked as though there

had been a meningeal hemorrhage. The convolutions were much compressed. The vessels at the base of the brain showed well-marked atheroma. The vessels of the kidneys were the seat of endarteritis obliterans. The heart was hypertrophied, but there was not that marked dilatation of the ventricles so commonly found in connection with chronic renal disease. There were no valvular lesions, and the heart muscle was in good condition.

Dr. Ferguson also exhibited specimens which had been removed from an Italian, twenty-two years of age. No history was obtainable except that there had been a moderate elevation of temperature and extreme dyspnœa. An examination of the heart, post-mortem, showed the mitral orifice contracted to a little less than half an inch, and also sufficient contraction of the segments of the aortic valve to interfere with their proper action. There was also a typical nutmeg liver, and the lungs showed the typical appearance described by Delafield as "the pneumonia of heart disease."

The Society then went into executive session.

Stated Meeting, May 24, 1893.

H. P. Loomis, M.D., President, in the Chair.

Sarcoma of the Uterus and Ovary.—Dr. George C. Freeborn presented a series of specimens illustrating sarcoma of the uterus and of the ovary. The first specimen, one of sarcoma of the uterus, was removed by suprapubic hysterectomy, by Dr. Bache Emmet, from a woman, thirty-four years of age. She had had six children, and had been perfectly well up to two years before. At that time she had a miscarriage, and since then had flowed freely and continuously. The specimen measured 12½ ctm. long and 7 ctm. transversely between the horns. Growing from the fundus of the organ was a soft, fungoid mass, and projecting from the right side of the uterine body was an oval mass 2 ctm. by 11 ctm. A latero-perpendicular section through the uterus showed the fundus occupied by a crescentic-shaped zone, 2 ctm. in thickness, made up of roundish masses, reddish in color, embedded in soft, white tissue. Leading from the right side of this zone to the external surface was a triangular cavity filled with shreds of necrotic material. The mucous membrane was almost entirely replaced by a zone of tissue composed of red and white nodules of soft consistency, many of which formed papillary projections into the uterine cavity. Microscopical examination showed the zone at the fundus and the mass to the right to be a round-cell sarcoma, containing some small spindle-cells, and showing necrotic changes. The mucous membrane was replaced by a new growth of round-cell sarcoma, which had infiltrated the muscular tissue to a considerable extent, and the surfaces of the papillary projections were necrotic.

The second specimen, one of sarcoma of the uterus and ovary, was removed post-mortem from a woman, fifty-two years of age, who was in the service of Dr. Hanks at the Woman's Hospital. She had had six children, and the menopause occurred five years previous. At that time she began to have pain in the right side, and her abdomen began to swell. Microscopical examination of the curettings from the uterus showed the presence of a sarcoma. An exploratory laparotomy revealed a retro-peritoneal sarcoma filling the abdominal cavity, and no attempt was made to remove it. The patient died eleven days later, and the autopsy showed general peritonitis and chronic diffuse nephritis. The uterus measured 10 ctm. long by 8 ctm. across the horns, and a sagittal section showed its cavity dilated by an oval mass, 4½ by 6 ctm., growing from the anterior wall. When fresh, this mass was soft, and mottled red and white. The left ovary was atrophied, while the right measured 7 ctm. by 2 ctm., and a transverse section showed the ovaries reduced to a soft, white mass. The mass removed from the omentum was also shown. It was oval, and measured 30 by 16 ctm., and was found occupying the lower portion of the abdominal, and the upper portion of the pelvic, cavity. It was firmly adherent to the lateral walls of these cavities, to the fundus of the uterus, and to the enlarged right ovary. The tumor was attached to the stomach. The whole tumor presented a rough surface, and anteriorly it was studded with numerous small cysts containing grumous blood and necrotic tissue. On longitudinal section its central portion was shown to be occupied by a spherical cyst, 11 ctm. in diameter, having a smooth internal surface, and containing reddish-brown fluid. The posterior wall was thin, and composed of fibrous tissue; the anterior wall was quite thick, and contained various sized red nodules, embedded in white, soft tissue. Microscopical examination showed the mass in the uterus, and the ovary and tube, to consist of small, round-cell sarcoma, containing some spindle cells. The tumor of the omentum was made up of several kinds of sarcoma—small round cell, giant-cell, small and large spindle-cell, and angio-sarcoma.

The next specimen, sent by Dr. C. Cleveland for microscopical examination, was a uterus measuring 14 ctm. in length and 10 ctm. across the horns, and containing an irregular round and spindle-cell sarcoma. The mucous membrane of the uterine cavity, above and below the tumor, showed adenomatous hyperplasia.

The next specimen had been sent by Dr. G. M. Tuttle to the speaker for examination. The smaller ovary showed the mesosalpinx much elongated, and containing a small, thin-walled cyst, and on section it was found to consist of a soft, white mass, enclosed in a thin, fibrous capsule. The surface of the larger ovary showed numerous small cysts, and internally the same soft, white structure, and, in addition, a central necrotic area. The tube was enlarged, and on longitudinal section no lumen could be found. Microscopical examination showed both ovaries and tubes to be sarcomatous, spindle-cells predominating. The patient died on the seventh day after the operation, of what was supposed to be secondary deposits in the lungs. No autopsy was permitted.

The next specimen was a small, spindle-cell sarcoma of the ovary, removed by laparotomy. On section it was found to consist of a soft, white mass, and several cysts enclosed in a moderately thick capsule.

Another sarcoma of the ovary was also exhibited, which had been removed by Dr. Cleveland, by laparotomy, from a woman, twenty years of age. The history of the tumor extended only over a period of three months. The tumor was a bilobed mass, having a smooth surface, and attached to the right horn of the uterus by a flat pedicle about five centimetres wide. On section it was found to consist of soft, white tissue, enclosed in a thin, fibrous capsule. Microscopical examination of frozen sections showed it to be a small, round-cell sarcoma with scanty stroma.

Dr. Freeborn also presented both gross and microscopical specimens from a fibro-cysto-adeno-sarcoma of the ovary. It was removed from a woman, sixty-six years of age, who had given birth to eleven children. The history of the tumor extended over two years, and indicated that growth had been slow except during the last two months. The specimen was a multilocular cyst, two-thirds of which was made up of small cysts with thin walls, the remaining third consisting of a dense, triangular mass, the central portion of which was calcified. The interior of this mass was composed of small cysts with moderately thick walls. The dense mass was found on examination to be a cystic fibro-sarcoma, and the internal cystic mass to be a peculiar form of adeno-sarcoma described by Klebs in "Die Allgemeine Pathologie," Zweiter theil, 1889. p. 748.

Dr. Freeborn said that sarcoma of the uterus and ovary is believed to be rare, and up to the year 1886 Gusserow was only able to collect seventy-three recorded cases of sarcoma of the uterus. Owing to the inaccuracy of the records of tumors of the uterus, the speaker had been unable to bring these statistics down to date. Gusserow's

statistics show that sarcoma of the uterus occurs most frequently between the ages of thirty and fifty, and is quite rare at other periods of life. It occurs most commonly as a diffused growth of the mucous membrane. It may occur as a primary nodule in the walls of the organ, in which case it is of a fibro-sarcomatous nature, but it is exceedingly rare. The statistics of sarcoma of the ovary are equally inaccurate. Up to 1886 Olshausen had collected thirty-seven cases, and Leopold twelve. Of these forty-nine cases the majority were spindle-cell sarcoma, only one case being of the small, round-cell variety. Fifty per cent. of the tumors were bilateral. Many of the recorded cases of fibroma of the ovary, he thought, were undoubtedly spindle cell sarcoma, as this is comparatively common, while fibroma is rare.

Aneurism of the Mitral Valve.—Dr. E. Hodenpyl presented a specimen of aneurism of the mitral valve which had been removed from the cadaver of a middle-aged man who had been treated in the hospital for chronic endocarditis and chronic diffuse nephritis, associated with extreme dropsy. The necropsy showed nothing of interest except the heart. This organ weighed thirty ounces, and on the mitral valve, besides some vegetations, was a small aneurism opening into the auricle.

A Rare Aortic Aneurism.—Dr. Hodenpyl also showed a specimen of aneurism of the aorta, perforating into the pulmonary artery. The specimen was removed from a man, forty-three years of age, a plasterer by occupation. He was treated in the Roosevelt Hospital last year for acute pericarditis, and was admitted the last time on April 29th of the present year. Since last November, dyspnœa and palpitation had been increasingly troublesome, and two weeks prior to admission he began to cough. On admission he was cyanotic, his pulse was 170, irregular and soft, respirations 28, and temperature 102.6°. The urine was acid, had a specific gravity of 1.020, and contained twenty per cent. of albumin. Physical examination of the lungs was negative. There was a pulsation all over the præcordium and in the epigastrium, and the area of præcordial dulness was considerably increased. Coarse, scraping, double murmur was audible all over the præcordium, but was loudest at the base. Here also the rhythm was very irregular, and was increased by deep inspiration. Well-marked præcordial fremitus could be detected all over the præcordium. The heart's action was occasionally irregular. On the day after admission the patient died very suddenly. At the autopsy, clear serum was found in the abdominal, pleural, and pericardial cavities, and all the viscera were intensely congested. Both ventricles of the heart were hypertrophied and dilated; the muscle and valves were normal. Just above the sinus of Valsalva was a small aneurism, which had perforated at its centre by a circular opening having smooth edges, and large enough to admit the tip of the little finger. This opening communicated directly with the pulmonary artery. The other vessels were normal.

Dr. J. H. Huddleston asked if there were signs of pericarditis when the patient was admitted, if there were signs of old inflammation about the aperture, and whether the opening was congenital or of old formation?

Dr. Hodenpyl replied that there were no signs of pericarditis, that the opening could not have been congenital, because the ductus arteriosus was situated higher up, and that the opening must have been an old formation, as there was the record of an old pericarditis, and the murmur had persisted for a long time.

A Single Kidney.—Dr. Hodenpyl also presented a specimen of a single kidney. It had been removed from a man twenty-seven years of age, who, when admitted to the hospital on April 15, 1893, gave a history of having had no movement from the bowels for nine days, during which time there had been a good deal of vomiting and headache, but no abdominal pain. On admission, he was well nourished, face flushed, tongue brown and dry, and tremulous; marked tremor of the hands. Pulse was 76, regular and strong; respirations, 10, temperature, 97.4°. There was complete suppression of urine. The physical examination was negative. On the following day the respirations fell to six, he vomited repeatedly, there was considerable muscular twitching, and troublesome and constant hiccough. The patient was perfectly conscious. He was given an enema, which produced a small fluid stool. He died that evening, and just before death his temperature was 96.4°. The cortex of the kidney was found to be covered with numerous red infarctions which must have interfered with the function of the organ. These infarctions, on microscopical examination, showed signs of degeneration and leucocytic infiltration, but there were no bacteria, nor was there a thrombus of the renal artery. There were no hemorrhagic or petechial spots elsewhere. The cause of the infarctions was obscure. Only one urethral aperture was found in the bladder.

A New Cotton Swab for Obtaining Fluids.—Dr. W. H. Park presented an improved swab for use in obtaining specimens of exudate from the throat for examination. It consists of a thin steel rod, the end of which is wrapped with sterilized cotton, and then placed in a sterilized test-tube closed by a sterilized cotton plug. A finer wire with a smaller piece of cotton might be introduced into wounds, or into the intestine, when it is desired to obtain some of the contained fluids for the purpose of making cultures. The swab is preferable to the platinum wire, because it does not cut the gelatine plate.

Dr. Hodenpyl said that he had used these swabs during the past winter, and had found them very convenient. They keep moist for some time.

Dr. F. Ferguson said that some years ago he had had Meyrowitz prepare for him a case holding twelve short test-tubes, containing agar-agar. These tubes were closed by a sterilized cotton plug, and a platinum needle extended from the plug to the agar-agar. It cost only five dollars. He could not see wherein Dr. Park's swab had any advantage over this.

Dr. Park replied that his case cost only eighteen cents; that he used cotton rather than a platinum point, because in the case of a struggling child it was much more difficult to use the platinum wire than the swab.

A Cheap Incubator.—Dr. Park also presented a model of an incubator, the cost of which would not exceed five dollars. It consists of a double boiler having a piece of lead attached to the bottom of the inner boiler so as to hold that vessel down during the ebullition of the water in the outer vessel. The boiler is surrounded by an asbestos jacket, and a piece of asbestos covers the lid. Through the centre of the lid passes a thermometer which serves to indicate the temperature within the boiler. The gas regulator consists of a bulb containing alcohol, and connected with a U-tube containing mercury. The boiler rests on an iron support, and a Bunsen burner furnishes the necessary heat.

General Tuberculosis.—Dr. F. Ferguson presented specimens from a case of general tuberculosis. The patient was a man twenty-eight years of age, who was admitted to the hospital on May 22, 1893. About two years before this, he said he spat up a large quantity of blood, and that during the past year he had frequently expectorated smaller quantities. He had had a cough ever since childhood, but recently it had become much worse, and he had emaciated rapidly. On the day before admission, he had a chill, followed by sweating, headache, pains across the chest, and prostration. There was slight dulness and high-pitched breathing over the left apex in front, and subcrepitant and coarse râles scattered over both sides of the chest, but most marked over the left apex and right base. Over the right base, posteriorly, there was dulness and slightly diminished voice and breathing. The free edge of the liver could be distinctly felt three inches below the free border of the ribs, and the spleen could be palpated two inches below the ribs. At the autopsy, there were found old peritoneal adhesions,

cheesy degenerations of the supra-renal capsule, pigmentation of the stomach, a cirrhotic liver with diaphragmatic adhesions, tubercular tracheitis, tuberculosis of the kidneys and prostate, and miliary tuberculosis and pneumonia in the lungs, one lung having a small cavity in the apex.

Supernumerary Pancreas.—Dr. George P. Biggs presented a specimen of a tumor found at the pylorus, in a patient who died of alcoholism. The tumor was exactly at the pyloric ring, and the mucous membrane covering it was thickened but intact. It was thought to be a fibroid, but a microscopical examination showed that it was a supernumerary pancreas. Dr. Biggs also showed several specimens of a partial separation of a portion of the pancreatic tissue, just over the head of the gland and projecting into the duodenum, and typical pancreatic tissue was found within the walls of the duodenum. He stated that this anomaly would be found in nearly one-third of all necropsies, if these were made with sufficient care.

Dr. S. T. Armstrong said he believed this was rather an instance of ectopy, properly inclusion, of glandular tissue, than of supernumerary gland.

Dr. Huddleston asked if there were also supernumerary ducts.

Dr. Biggs replied that ducts were found throughout the tissue, but no specially well-marked duct was found, nor could he say where these ducts emptied.

Old Appendicitis; Vertebral Abscess.—The President presented specimens taken from an almshouse patient, of whom no other history was obtained than that he could not walk, but could move his legs. There was an old appendicitis that showed a tumefaction of the appendix due to accumulated fecal matter. There was also a tumor over the fourth lumbar vertebra, from which, on incision, a quantity of pus escaped. The bodies of the vertebræ were found to have been eroded, and the accumulated fluid had compressed the cord.

The Society then went into executive session.

Correspondence.

ABDOMINAL HYSTERECTOMY WITH CLAMPS.

To the Editor of the Medical Record.

Sir: In a recent issue of the Medical Record dated July 1st, Dr. Emory Lanphear, of Kansas City, Mo., contributes an article entitled, "Abominal Hysterectomy with Clamps—A Rapid and Safe Method of Removing the Uterus," and dubs the operation Lanphear's without even as much as noticing my work on the same subject which was described a year ago and published in the Medical Record of November 19, 1892. As my publication contained all the essential features of the author's claims, and was the first supra-pubic clamp operation described, it would be in accordance with justice that my operation be recognized. Dr. Lanphear, although I had mailed him a reprint of my article, appropriates the honor of the clamp operation and sets himself up as its sole originator; of which claim the readers will be better able to judge by referring to the above numbers of the journal. No apology, on the ground of minor differences in the operation, is sufficient to excuse this injustice, inasmuch as the question at issue deals with the clamp operation. Total extirpation of the uterus by the supra-pubic route was decided upon and executed by me almost two years before my publication of the operation. At this time supra-pubic hysterectomy was not discussed, and the instruments and operation I described are in every way original.

Respectfully,

J. S. Pyle, M.D.

Canton, O., July 17, 1893.

The Livland Medical Society, of Russia, will meet in Dorpat on September 1st, 2d, and 3d of the present year.

A PRACTICAL VIEW OF BABY SHOWS.

To the Editor of the Medical Record.

Sir: Although the incident at the Melbourne Baby Show, reported in the Medical Record of July 15th, has its amusing side, does not the question arise among those deeply interested in the welfare of children, whether any action which might tend to raise the standard of development in early life, could be wholly undesirable?

Considering the wide-spread indifference regarding the proper physical development of children, and the prevailing ignorance as to the "points" a really healthy child ought to possess, it would seem that proud mothers might well learn a lesson from exhibitors of live stock.

One who, among intelligent people, has repeatedly seen the large head of rachitis pointed to with pride as an evidence of "brains," and heard the transparent delicacy of chronic starvation praised as "refinement of feature," cannot fail to hope for a day when the "standard of excellence" in babies shall be raised at least to an equality with that required for dogs and horses.

From this point of view, the Melbourne departure might indeed open "great possibilities"—not merely for the indigent doctor—as has been facetiously suggested—but also for the enlightenment of those entrusted with the care of the young and the consequent improvement of the coming generation.

E. B. Cross, M.D.

62 West One Hundred and First Street, New York.

AN INCIDENT IN SUMMER PRACTICE.—AUNT BETSEY HAWKINS.

By W. P. Northrup, M.D.,

New York.

"Aire yo-ou the doctor that cured Bill Jenkins's twin? Wa-al, I want ye to come along with me and see what's the matter with my mother-in-law; she's had some kind o' fit-like, and my wife thinks she has a touch o' paralysis." The person addressed was returning to the summer hotel, a little late for supper, the early intimations of evening already settling about the shrubbery and shady corners. The speaker was a back-countryman, shabby, thriftless, drunk. His greasy slouch-hat had settled into swells and cross-seas, the result of storms and spells of weather. From beneath appeared a sallow face, long straggling beard, and rat eyes. His shirt was open at the neck. His long-tailed, black coat hung in stringy folds from rather square, thin shoulders.

If there is one nuisance that worries the summer practitioner more than another it is the "native." To refuse to attend him is to appear inhumane; to treat him is to serve for trifling compensation and subject one's self to the most trying criticism. He is sure to come at five o'clock in the morning or at the dinner hour; and by the following noon all the county will know whether the city doctor's medicine is "any good." Furthermore, if the impression is favorable, it passes for a matter of course. This messenger wanted me to go at once in his shabby old wagon, somewhere out into the brush country, without supper, to be gone indefinitely. Refusal was out of the question; even slight delay was borne with frowning impatience.

"G'lang, Bill," said the codger, as he crawled in over the wheel, "he's better goin' toward home." During the first few miles of familiar road, the prematurely old man expressed his personal ideas of doctors. His wife had been the cause of his coming for me this time; as for him, he did not think doctors of much use. "No-ow do yo-ou, honest? Come, now, you're a doctor, answer me that." He continued: "When I'm sick I take a dose of Rochelle salts and in a day or two I'm as good as new." When it was "honestly" admitted to him, in the privacy of a rattling wagon, in the deepening shades of a lonely portion of the road, that he had the exact truth on his side, he let loose an explosive guffaw and lapsed into a moment's quiet.

All about was wrapped in evening. Long since the boys had stopped their games, the whip-poor-will his doleful call; the Bob-Whites were still, the sparrows and wrens had ceased their twitter, crickets and frogs had opened evening concert and were busy at it. It seemed, too, by chance we had happened in upon a family dispute among the katies. Without desire to intrude or place ourselves in embarrassing circumstances, we had unwittingly advanced into their very midst. There were sharp accusations followed by immediate flat denials. There was, perhaps, a trifling pause before the attack, but none before the contradiction. What the final outcome may have been we had no time to await, but as matters were going when we left, it seemed certain that the plucky pursuit of the katy-*did-n'ts* would eventually carry the day.

The disputant again showed signs of life and opened the discussion just where he left off. "I 'low we can't git along without doctors sometimes; you may need 'em to see folks, jest once, that's going to die, so's to give lines for certificate. You have to have the coroner if you don't, and the women ha ates that." In the daylight and in familiar country one may choose to defend his guild, but in a dark, lonely, country road discretion dictates caution. It subsequently appeared in conversation that my guide and drunken keeper had, in his palmy days, been a hanger-on at Harry Hill's down-town resort, was there, in fact, when the police descended upon it. Notwithstanding, I cautiously ventured to inquire what he would do in case of typhoid fever; would not a doctor have a certain function then? If I had rested my argument there, I should have been strong, but I unfortunately added pneumonia. That woke him up. "Fevers, ya-as; in fevers you can use a doctor, but good nursin's half the battle then, I b'lieve. Pneumony! (Scornfully.) No, sir! no doctor for me! Our Beaverhead doctor, he goes strong on my wife for nursin'; she's what I call a born nurse; she pulled me through pneumony, worst kind, twice—the doctor 'll tell ye so. Pneumony! Ask Dr. Cornstalks—yo-ou must a heerd of him!" I hastily admitted that I knew him well by reputation—had heard of his wonderful cures. For peace's sake, he should be, till we got out of the woods, President of the Beaverhead Academy of Medicine—anything, no matter how great. He began again later in somewhat more normal mood. "Bill Jenkins's twin they do say you fixed up very smart. S'pose you could a saved t'other? Bill's wife said she never give it the medicine that Queville doctor left; it was hot enough to burn the clinkers out of a coal stove; she tasted on it." No doubt my shabby friend had direct information from the Jenkinses, for Bill's business comprised, besides general groceries, all-around store and gin-mill as well.

The little old horse, headed for home, did very good work. The dashboard was high enough to nearly hide him, but every point of the argument was emphasized with a blow from the gad, which struck the dash first and bent till it found the animal's flanks. We knew the horse had been hit, for the backless seat let the passenger over nearly to the main-deck every lick and every jump. There were also frequent minor punctuations with spurts of tobacco-juice. After some miles the old horse abruptly changed his course several points. He left the main road and bolted into what appeared to be a field. As the old wagon skewed through the ditch and emerged with a tremor and a creak upon the dark background of grass or weeds, the following reassuring explanation reached me: "All right, Bill, yo-ou knowed the road." He further explained: "This is a highway, but it hain't been worked yet and it hain't been fenced." Certainly it was not straight, for we veered to the right and rounded a clump of bushes, then to the left diagonally, to avoid a cornfield, and headed for a light in the distance. The light was not our port, however, and after bolting down grade through an interval in what seemed, in the darkness, to be an overgrown hedge, the steering-gear doubled up sharply to the right and settled all fours into a heavy, sandy, single-track road. "No, not yit—got a long way to go yit," mouthed the tobacco-chewer. Slowly the poor brute toiled along this heavy road. Sometimes on even keel, sometimes with heavy lurches and much creaking, sometimes with a short scud, the craft with its deck passenger survived many perils. The high bushes on either side crowded upon the sand track into our faces, or frayed out upward against the gray sky. Occasional licks over the dash hunted out the animal; frequent spurts flew into the dark; mosquitoes—endless—discriminated in favor of the passenger. "See that there cross track," my drowsy friend hoarsely remarked. "See this 'ere old stump oak? That's the box-oak. That's the old mail route from Brooklyn to Sag Harbor. The driver tucked the mail for Queville into that holler tree and the folks come down and picked out their own things, or some o' the neighbors fetched 'em up."

Another silence. It was now night. The gray sky came down into the ragged tips of the wood; the bushes were solid black, the single track showing uneven stretches of faint gray. Betimes we passed among trees, then came upon dilatations of the avenues of bushes sufficient for vehicles to pass each other, and at length upon suggestions of a clearing. A moment later a huge dog bounded into the road and jumped at the horse's nose, good-naturedly barking and leaping in friendly welcome. "Hello, Tige, you knowed the old hoss, didn't ye?" drawled my reawakened driver, and, pointing with whip and arm, announced: "That light yunder's the place." He again subsided, this time apparently into reflections upon my backwardness in undertaking this journey without my supper or at all. "You-ou warn't in no hurry 'bout gettin' ready to come, I noticed; it's well fur yo-ou if she hain't no worse fur it."

The wagon hauled out of the two furrows it had fitted so well, creaked and wabbled over unseen mounds and obstacles, halting at last at the back-door of the patient's house. "Wa-al, Hank, where ye been so long; what become of ye?" came from a coatless, burly man standing on the one step before the door. A quart kerosene lamp, held high above his head, illuminated some five or six individuals wedged into the frame of the portal behind. "Got the doctor?" drawled the lamp-holder. "Ya-as," replied Hank (my fellow-voyager), "after findin' him and gittin' him." Having climbed down, in the blinding glare of the lamp, from the high platform wagon, and extricated myself from the friendly embraces of a great overgrown dog I stumbled into a wide kitchen, face to face with numerous women and men. Not quite sure of my reception, and with intent to clear up the mystery of my gruff companion and unknown company, I ventured, in my best form, the following feeler: "I hope your mother is better." The fat, double-chinned, two-story hulk before me proved to be the wife of Hank, wonder of nurses, general autocrat of the household. Addressing myself early to her highness and the fact that the patient was rather improving, allowed friendly relations to be quickly established. Then commenced, at once, a long story of the illness, everybody in the "swamp" being present and all standing in the middle of the low kitchen. The one lamp on a distant table made fantastic silhouettes of a most interesting group. Planted square before me, hands on hips, like a brick schooner wing-and-wing, was our prodigious spokesman in full illumination. Behind her, meek as Moses in the domain of his wife, was my disreputable friend Hank. The least interruption from him and he was snuffed out. Standing in the group were men in once red flannel shirts, rolled to the elbows, mouths open or closed on pipes, in all attitudes of uncouth awkwardness, but quiet as mice. The women, in men's hats or bareheaded, were fairly neat in person and looked intelligent and kindly.

At length, the informant and information exhausted, the shades and silhouettes commingled and resolved into a procession into the next room, up one step, around a corner, into a small lean-to—the sick-chamber. The kero-

sene lamp came to rest upon a stand at the bed's head, flooding the face of the sick one with a blinding light. The crowd of relatives and neighbors, in procession, halted at the door, some just inside, some within the frame, others on tiptoe peering past as best they might. The double-decked picnic barge, the born nurse, assuming her favorite attitude, began her story all over again, told it through, and once more recommenced. Her facts and fictions were neatly placed to strengthen her own theories, and when she was at length "held up," the attending physician was in gratuitous possession of diagnosis and prognosis, with frank suggestions as to treatment.

In the bed lay an old woman, toothless, sunken, wrinkled, gray. She was eighty years old, she said, and had never been sick in her life before. This time she must have eaten something that disagreed with her. What was it? Nothing different from usual. Cucumbers, green-corn, she admitted she had eaten that day, and succotash the evening before; but the aged patient declared she had eaten these things all her life, and they never hurt her the least bit in the world. It was thought best to take her temperature with the thermometer. "What's *that* thing?" she said. "No, I don't want none o' y'r new fangles; *I'm* all right." She shied and plunged like a colt. As to the pulse—the fingers were blue. Was her circulation so poor? The old woman parted her toothless, shrunken gums, and roguishly pointed to two large tin pails, which had originally held commercial white paint. "Huckleberries," she snapped out; "I was out a-berryin' this mornin' and there they be"—the entire audience laughing with her. From whatever indisposition the patient had suffered, she was apparently recovering, as she had done a hundred times before. It was subsequently learned that she had never been "quite so good in her digestion since she stopped smoking." For fifty years she had smoked her pipe after meals and taken comfort at her work. She was a good Methodist, and one day there came to their meeting a revivalist—a holy terror. In endeavoring to benefit the stolid multitude he had convinced her that tobacco smokers failed of attaining that happy state hereafter, for which she otherwise was fitted. She never smoked again. The patient was cautioned to be quiet and remain in bed till fully recovered, and we prepared to withdraw to another room. "Doctor," she called, "I must get out of this to-morrer, I've got a job of weavin' for Mrs. Newell." The speaker had for years done the weaving for Beaverhead County. She was an expert; could work in patterns, initials, figures, etc. In later years the demands were mostly for certain fuzzy rugs of soft gray, much admired by summer visitors to the South Shore. "In my day the girls was learnt to weave and spin," she cried, and spoke with bitterest scorn of "them pi-aner things."

Our aged patient was born on Long Island; had lived for thirty years in this house. It might be added that the pension and back pay of a worthless son had put several additions and lean-tos to this rambling building, and helped her hard earnings to support certain thriftless ones about her.

On the edge of the swamp was a small patch of ground which this hard toiler had spaded and sown to flax. Unaided she tended it, gathered, dried, bruised, hatchelled it, spun and wove the threads into fabrics, one of which I have held in my hands. Under the low roof of the garret was the loom at which the old woman had wrought through the long years. Where the bare rafters slope down to the low wall, she had labored till the excessive heat of the last summer made it impossible to remain longer. The bench and beam were worn and polished with long use, and had acquired a deep color from age. Behind the weaver's seat lay a pile of home-made shuttles polished and misshapen from wear. There were wracks, spools, swifts, reels, and many things which the daughters could neither explain nor name. As she toiled on through the long hours of the six work-days, the smoke of her short, black, clay pipe had curled along the slope to the peak of the roof, and died away among the odds and ends hanging from the rafters: dried inflated pig-bladders, bunches of dried herbs, rubber boots, powder-horns, etc. On Sunday the loom stood idle. It was a four mile walk through heavy sand to her meeting-house, but never since she "got religion" had she failed to be present, carrying usually one grandchild in her arms and helping another along by the hand.

After consultation apart from the patient, it was agreed that she might have suffered a slight stroke of paralysis, but that it had apparently "cleared up." She might live ten days, or she might live ten years. When she did pass away it would probably be from another stroke. A prescription was left with the hope of annulling any possible harmful effects from the cucumbers, corn, and succotash; light diet and rest in bed recommended. "Mother wants to see you again before you go," announced an attendant from the direction of the lean-to. On responding to the call the patient assured me, in a most cheerful voice, that she needed no medicine, that in a week it would be cool enough to begin work at the loom, and if I would come down she would show me what not another in these parts could show, viz.—weaving. Then after a moment's pause she asked: "What's y'r charges?" at the same time squeezing tightly a roll of bills. In a spirit of banter, "What you have there," was the reply. "No, ye don't," she promptly interjected, "ye shan't have it all; what's y'r charges?" The price was stated and paid. Raised on elbow she reached out a strong bony hand to say good-by—"and come again next week: I'll be weavin' then and I'll be glad to see ye. Ask at the edge of the swamp for Aunt Betsey's," and ducking her head smartly for good-by, she lay down on her pillow.

Out into the same high wagon with the low horse; from the glow to the darkness, over the same unevennesses, into the same sand-ruts, homeward. Good-bys had been cordial and good feeling prevailed. The box-oak was repassed, and we took a new way home, "Jest to show ye the bush," as my better-natured Hank explained. Farther on was a branching track to the right and a branch cleft in the black masses. "That road leads down to Bill Jenkins's," sheepishly remarked Hank, with a certain interrogative intimation in his voice. The old man's system seemed pervaded with an intense thirst; the old horse took it into his head we were bound that way and started to turn. Hank, receiving no encouragement and being reminded of the lateness of the hour, managed to head off the animal and guide him back into the long up-stretch. Behind were suddenly heard the footfalls of a flying horse, the whisk of bushes, and a hurried, wild, excited voice—"Hank, Hank, is that you?" A brief message was hurled at us through the darkness and the unseen rider was gone. The mother was taken suddenly worse, and would the doctor turn and come "quick." The clumsy vehicle, in some unknown manner, was doubled short about. The horse dove into the darkness, every jump marked by a swish of the gad in the hands of the charioteer. Horse and driver were transformed. We seemed to retraverse the distance at a pace hitherto inconceivable. I have no knowledge how it was accomplished; but bewildered, beswitched, blinded with sand, tumbled, and bumped, we drew near once more to the lonely habitation. Upon the road, some distance from the house, there emerged from the gloom a hatless man. In a voice husky and choking came the piteous cry: "Oh, Hank, it's too late! Did ye hurry y'r best?" Back over the sand-stretch he sped before us. This man I afterward recalled among the group, and located him as the one who listened intently but never spoke, and frequently slipped away in the direction of the sick-room.

As I dropped over the forewheel once more behind the rambling old house, quite a different scene awaited me. The interval had been short, but the curtain in the meantime had fallen upon that act in the tragedy and risen anew. Hank's wife was wiping the dripping tears from her big face, showing in her own way all the feeling of which her nature was capable. The numerous women

about the kitchen were stupefied, and stood with wide eyes and folded hands. The men, with heads bowed, silent, rested their faces against their hard, brown arms. Hastily passing through the rooms, I came to the lean-to where, white and rigid, in that attitude known as "laid out," was the hard-working, pious old weaver, the last of her kind. By her bedside, alternately kissing her motionless, upturned face, and drowning with hot tears an old wrinkled hand, kneeled the one son who had never been anything but a comfort to her.

Without warning, without a suspicion of its coming, a second stroke had quickly followed the first, and Aunt Betsey Hawkins was dead.

57 East Seventy-ninth Street.

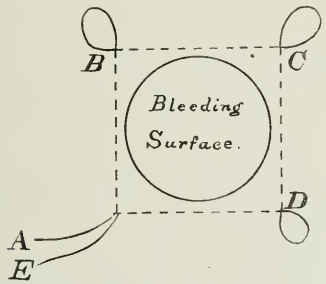
TONSILLAR HEMORRHAGE.

To the Editor of the Medical Record.

Sir: In your issue of July 1st I note an article by Dr. H. Hoyle Butts upon tonsillar hemorrhage, in which he discusses quite fully most of the plans of treatment heretofore suggested and finally pins his faith to a special clamp of his devising.

As it is evident that this gentleman is not aware of the simplest and most certain method possible—for obstinate cases—I would call his attention to the article upon this subject in your issue for December 17, 1892, to which he does not allude. This is the plan of ligation of the tonsillar stump by a buried suture. The appended diagram makes the idea plain at a glance. Since my original article (named) gives full details I shall not occupy your space therewith, simply adding that I have now at least a dozen times demonstrated at the Polyclinic that the method is easily practicable; that it can in case of need be done by sense of feel; that it does not take more than two minutes' time, and that it is absolutely certain in effect. I need hardly add that however ingenious Dr. Butts's device may be, it is certain that surgeons will purchase as few special instruments as possible; and that in this instance a long needle-holder, a semicircular needle, and coarse silk are alone necessary.

Perhaps I may modify my original paper by adding that I would suggest passing the needle the first time below, transversely (A to D in the accompanying diagram).



Often the bulk of the bleeding comes from ascending arteries, and in such a case one stitch placed here may suffice.

The following case exemplifies this:

On April 14th I operated upon Eunice S——, an anæmic child of twelve years of age, with very large tonsils and pharyngeal adenoids. The left tonsillar surface bled so annoyingly after amputation that having tried ice, and subsequently hot-water gargling to no effect, I passed a single transverse thread (A to D) one-fourth inch beneath the surface, intending to follow this with the other stitches. But upon drawing on this suture the bleeding was promptly checked thereby; and hence I tied it firmly and did nothing further. Thirty hours later it was cut and removed.

In conclusion I will quote a sentence or two from the letter of December 17th:

"The nearest approach to this idea which the writer has anywhere found is the method suggested by Dr. E. W. Clark, of New York, who has run two large needles through the bleeding base, and leaving these in place, wrapped a ligature firmly about them. Manifestly, even if this were equally as certain in effect it would be quite as difficult to do as the writer's device, and must be much more annoying to the patient while in position. Indeed, the side of the tongue would be likely to be lacerated against the sharp needles, unless in some way these were covered. The suggestion has also been made to seize with a volsella the bleeding surface, and drawing firmly upon it to tie a ligature about it. I have in one instance tried this, and found the ligature repeatedly slipping off, in spite of my best efforts. Indeed, as there is nothing like a real stump or pedicle left (if the tonsillotomy has been properly performed) such slipping is almost unavoidable.

"I only mention this latter plan as being the other of the two which remotely resemble the method upon which this paper has been written."

Very respectfully,

Robert H. M. Dawbarn.

105 West Seventy-fourth Street, July 2, 1893.

New Instruments.

AN ANTISEPTIC NEEDLE-HOLDER

By John G. Jay, M.D.,

Professor of Principles and Practice of Surgery, Woman's Medical College, Baltimore, Md.

Although many forms of surgical needle-holders exist, there are comparatively few which may be strictly termed antiseptic, and some, in other respects good, are quite complicated in their construction.

As a holder composed of the fewest pieces, and having the simplest construction, is the most antiseptic, I have

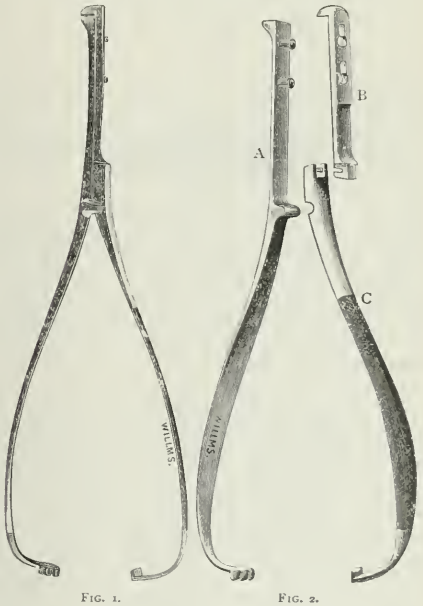


Fig. 1. Fig. 2.

endeavored to produce one of as few constituent parts as may be compatible with efficiency.

This holder, which I trust may be found useful to the

profession, consists of three pieces, and in most respects is, as far as I know, unique in design.

The accompanying cuts will, I think, quite clearly illustrate the plan of the instrument and its *modus operandi*: Fig. 1 shows the instrument complete, and Fig. 2 its several parts. The piece (A) Fig. 2, includes half of the handle and the blade or slide upon which (B) and (C) operate in closing the grip for the needle. Projecting from its surface of contact with (B) are two pins with heads, for the fenestra in the last-named piece; and toward the handle from these a fulcrum, with side guards, to fit the corresponding depression in (C). Piece (B) extends beyond the end of (A) with a sufficient space between the projections or jaws of the grip for the accommodation of the largest needle. At the other end of (B) there is a deep groove which fits upon a cross-piece or rivet in the end of (C). The portion of (B) between its attachment to (C) and the first fenestrum, is much thinner than the part beyond, and constitutes the spring. When the handles are compressed, the lever elevates the proximal end of the spring, draws (B) back upon (A), and very firmly closes the grip. At the same time the handles are locked. By unlocking the handles the spring, which was raised by the lever, resumes a position parallel to the other blade and the jaws are thus opened.

This may be called a universal holder, as it is adapted to the use of any variety or size of needle. It is simple in its construction, and I believe more easily operated and cleansed than any other of the holders now in use.

No claim of originality is made for the handle lock, it having been applied to a variety of instruments for a considerable time past.

The cuts are five-ninths of the size of the instrument.

I wish to express my thanks to Messrs. Willms & Co., of this city, by whom the instrument was made, for the care and skill which they exercised in its manufacture.

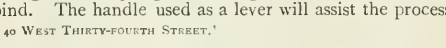
210 West Franklin Street.

A NEW KNIFE FOR CUTTING OFF DRY PLASTER-OF-PARIS DRESSINGS.

By A. M. PHELPS, M.D.,

NEW YORK.

The cut fully illustrates the form of the knife. It has a short hooked back made very strong. The handle is



massive steel ending in a wedge shape. This can be used as a lever from time to time as the plaster is being cut. Plaster bandages should be cut through their entire thickness with an ordinary knife while soft. This will aid the surgeon materially when the time for dressing occurs. Seize the edge of the dressing and cut, at the same time lifting so as to spring the bandage, and the knife will not bind. The handle used as a lever will assist the process.

40 West Thirty-fourth Street.

Formanilid: A New Analgesic in Laryngeal Diseases.—J. Preisach found (*Wien. med. Presse*, 1893, No. 10) that, after insufflation, pain in swallowing subsided in a few minutes, and that the effects continued from two to sixteen hours, usually ten to twelve. Palpitation of the heart and depression occurred in one instance, but lasted only a few seconds. With the anæsthesia of the mucous membrane its reflex irritability is likewise subdued. He finds it as active as cocaine, and much more enduring in its effects. A. Bökiai (*Ibid.*) recommends it in painful inflammations, as tonsillitis, pharyngitis, etc. M. Neumann first found biting and then numbness of the tongue from a twenty per cent. solution, with pallor and analgesia of the mucous membrane, the effects lasting an hour or an hour and a half.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending July 15, 1893.

	Cases.	Deaths.
Typhus fever	0	2
Typhoid fever	16	2
Scarlet fever	57	6
Cerebro-spinal meningitis	10	8
Measles	174	7
Diphtheria	107	36
Small-pox	9	0
Cholera	0	0
Varciella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

The Proportion of the Defective and Sickly among School-children has been shown in a striking way by a Committee of the London Charity Organization Society. After two years of labor they publish the results of an investigation into the physical condition of 50,000 school-children, all being children of the poor. It was found that of the 50,027 children, no fewer than 9,186, or 18.3 per cent., were defective in some way or other. Examining these 9,186 still further, we find that 5,851 showed defects of development; 5,487 presented abnormal nerve signs; 2,003 were delicate, pale, and thin; 3,679 were reported by the teachers as being dull in school; 1,473 showed eye defects; 67 were deaf; 239 were crippled, paralyzed, maimed, or deformed; 54 were epileptic; 234 were feeble minded; and 817 required special care and training. It is estimated that about 13 per 1,000 need special care and training.

Pills of Iodide of Potassium.—Here are some prize formulas submitted to the Pharmaceutical Society of Anvers as the best mode of making these pills:

℞ Iodide of potassium 0.25
Powdered starch 0.5
Simple syrup 1.0
For one pill.

Pulverize the iodide of potassium, add the starch in an impalpable powder, and add the syrup to make a pilular mass softer than an ordinary mass. One thing to observe is to work up the mass thoroughly, otherwise it does not present the desired cohesion. Roll the pill in starch powder. Another way is to take the prescribed quantity of iodide of potassium, dissolve it in a small quantity of water, add gum arabic in a sufficient proportion to obtain an ordinary mucilage, then add potters' clay in sufficient quantity to make a mass which can be easily worked, and immediately roll into pills, for in a short time the mass becomes hard. The pill can be rolled in potters' clay, or covered after the manner of iodide of iron pills. It is said that these pills keep perfectly without much care; they dissolve rapidly in water and after depositing the potters' clay give a liquid absolutely colorless.—*Medical and Surgical Reporter.*

Ante-mortem Will.—A story is reported from St. Louis of a man named O'Reilly dying of phthisis in a crowded hospital, who told a benevolent lady who visited the hospital with her daughter that he had made a will leaving the daughter $3,000. By the influence of this lady he was removed to a comfortable infirmary. Having found his little trick so successful, he tried it again upon the sisters, saying that he had amended his will, and left half his property to the institution. He was well cared for and properly buried, and it was not until some time after his death, when a dispute arose between the charitable lady and the infirmary, that it was discovered that he had absolutely nothing in the world.—*Medical Press.*

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Original Articles.

ELECTROLYSIS FOR THE RELIEF OF CERTAIN MORBID CONDITIONS OF THE NASAL SEPTUM.[1]

By JAMES EDWARD NEWCOMB, M.D.,

ATTENDING LARYNGOLOGIST DEMILT DISPENSARY, ASSISTANT IN ROOSEVELT OUT-PATIENT (THROAT) DEPARTMENT.

No application of electricity as a therapeutic agent offers a greater attraction than does electrolysis. Brought to a high degree of efficiency by Apostoli in gynecology, by Newman in urethral surgery and by others, it has enlisted the efforts of workers in every special department of medicine. Certain morbid conditions of the nasal septum have seemed to offer a field for a fair test of its usefulness. The present paper attempts to review the existing status of this special application of electrolysis and states the impressions derived from a very limited personal experience.

In 1800 Carlisle and Nicholson succeeded by this procedure in decomposing water into its constituent gases, oxygen and hydrogen. All binary compounds are resolved in a similar manner. When a ternary salt, such as cupric sulphate, is acted upon, oxygen and a free acid appear at the positive pole, while metallic copper is deposited at the negative.

When we pass from the category of inorganic to that of organic substances, we are confronted by a problem of much greater intricacy. We have, however, the same general class of bodies upon which to work. Living organisms of the animal kingdom are in this relation practically masses of cells bathed in a saline fluid. "An electrolytic disintegration of animal tissue consists in a resolution of the organized compounds of which it is composed, into their chemical constituents, acids, and bases."[2] "The results accomplished in the regions between the poles are owing to the influence upon nutrition: 1, of the chemical interchanges which occur throughout the circuit in the onward progress of the particles which eventually appear free at the poles; 2, to the circulatory changes resulting from vaso-motor action" (*ibid.*).

Let us study the matter a bit more closely. If we perform the simple experiment mentioned in all text-books on medical electricity, of inserting into a bit of beef muscle two needles connected respectively with the poles of a galvanic battery and pass a current of one hundred and fifty milliampères for two minutes, we shall hear a faint hissing sound, caused by the rapid production and escape of hydrogen bubbles from along the track of the negative needle. At the insertion of the positive, no such result is especially observed. The latter, however, becomes somewhat firmly imbedded in the muscle.

If we cut down on the track of the negative needle, it is found to be surrounded by a small cavity containing liquids and hydrogen bubbles. Along the original lines of contact between needle and tissue, the latter has been destroyed, for the walls of the cavity are soft, darkened, and a little pulpy. The needle is not eroded or tarnished. By a similar proceeding, the positive needle is found corroded and imbedded in a grayish eschar. The latter is stained in spots from a dissolving off of the needle. If the latter is made from a base metal, the liberation of its salts will stain the surrounding area; if made of gold or platinum, the tissue is unaffected by the nascent oxygen and acids. About the needle track we have the hardening and searing characteristic of an acid, while a very small cavity forms full of oxygen gas. Owing to the non-union of the latter with gold or platinum, these needles are not so firmly imbedded as those of base metals. The effects at the poles, therefore, in these and all similar experiments, are due to the nascent acids and alkalies. The destructive action varies also according to the nature of the tissue; the more succulent the latter, the greater the effect.

Rockwell remarks[1] that there is no evidence that organization, as such, seriously interferes with electro-chemical decomposition. The fluids of the body decompose under the influence of the current, just as the same combination of fluids with tissue would decompose if not endowed with life. The great difference in the effect of electrolysis on organic and on inorganic substances is seen after the current has ceased to act. The electrolysis of organic substances starts a process that continues long after the current has ceased to flow.

A rational view of the subject before us requires an answer to three main questions:

1. Is the tissue met with in spurs and deviations of the nasal septum of such a nature as to be capable of electrolysis?

2. Is the operation a safe and practicable one, and what is its proper technique?

3. Does this method of treatment possess any advantages over other methods, and what are the limits of its application?

First, then, as to the nature of the tissue with which we have to deal.

The nasal septum is made up of bone and cartilage covered with mucous membrane. It may be deviated locally or throughout its entire mass. There may be localized outgrowths from its surface. These two abnormalities may co-exist in varying measure. True cartilage is destitute of nerves, and therefore of sensibility. It is equally devoid of blood-vessels, except certain loops which run in here and there from the perichondrium. It is nourished by imbibition from the nutritive supply of neighboring parts. All cartilages, except the articular and fibro-cartilages, are covered with a fibrous membrane, the perichondrium, similar in structure and function to the periosteum. When cartilage is destroyed, it may be replaced by fibrous tissue or by bone, but it is never reproduced. Under the microscope it presents a colorless, transparent matrix studded with nucleated cells. These are flattened and arranged superficially parallel with the free surface of the cartilage, while, more deeply, they are elongated and grouped vertically. The nutrient materials absorbed by the blood-vessels are, by these cells, transmitted throughout the hyaline matrix. According to the need of tenacity or flexibility in cartilage, this hyaline substance is dense and more distinctly fibrillated.[2]

A true cartilaginous tumor is (Delafield and Prudden) usually hard, sometimes soft. The cells do not present the same uniformity in size, shape, number, and relative position. They may be large, spheroidal, and grouped in masses, or small and far apart. They are frequently fusiform or branching. Fibrillar connective tissue in varying quantity is usually present, either as a capsule or run-

[1] Accepted as a Candidate's Thesis for membership in the American Laryngological Association, May, 1893

[2] Massey, Electricity in Diseases of Women, p. 43.

[1] Hare's Therapeutics, vol. i.

[2] Gascoyen (Quain's Medical Dictionary).

ning in bands between the nodules of cartilage or passing as fascicles into them. The cartilage may change to mucous tissue, forming a myxo chondroma. The cells may undergo fatty degeneration, may calcify or ossify. Small hyperplastic growths on the surface of cartilage are called ecchondroses. The mucous membrane is the same in structure as elsewhere.

The abnormal physical conditions of the nasal septum are, for our present purpose, projections, thickenings, and local deviations. The two former are localized hyperplastic growths, *i.e.*, an overgrowth of normal tissue elements. The third variety is frequently due to an overgrowth of the septum as a whole, the latter being flexible as compared with the unyielding or rather the less rapidly growing bony framework in which it is set. The final causes of these abnormalities do not here concern us. Seiler states that, in those septal enlargements big enough to be regarded as ecchondroses, ossification has in most instances taken place.

From the foregoing statements, therefore, it will be seen that in those conditions characterized by an increase in varying proportion of the histological elements of the mucous membrane and subjacent cartilage, we have, despite the scanty amount of moisture, a fair field for success. I say a fair field, though perhaps not an ideal one. We have a cell collection permeated, along with its imbedding matrix, with a saline fluid, the liquor sanguinis.

Secondly: Is the operation a safe and practicable one, and what is its proper technique?

It is not a difficult task to collate the experience of others, as the literature of the subject is not extensive. As far as I know, all the work has hitherto been done by Continental and mainly by French rhinologists.

The monograph of Moure and Bergonie, to which extended reference is made farther on, is the present standard authority on this topic. It is interesting, however, to trace the gradual development of the method to its present grade of perfection.

In this special application of electricity, Miot[1] is by universal acknowledgment the pioneer. Others before him had already used it upon hypertrophied turbinated tissue, but he was the first to employ it upon the nasal septum. He employed a cylindrical speculum carrying a metallic collar, which in turn bore two slender supports for holding the conducting cords from the battery, thus enabling the needles, when once in position in the tissues, to so remain without being dragged upon by the weight of the cords. The speculum itself was of necessity made of some non-conducting material, such as varnished or shellacked wood, glass, or hard rubber. He employed both the monopolar and bipolar methods. In the former, one wire from the battery leads to the needle in the nostril, while the other is attached to a broad, flat electrode on some indifferent area on the body (arm, neck, etc.). Miot first made the indifferent electrode very small and of fuller's earth or of gelatine, placing it in the patient's nostril opposite the destroying needle in the other. He reported ten cases, all cured.

Garel[2] has given the results of some carefully conducted observations. He uses, first of all, an ordinary Duplay's speculum, only, however, for the examination of his patient and the insertion of the needles. He often omits the preliminary use of cocaine, claiming that there is only insignificant pain when the needles pierce the mucous membrane and no pain whatever when they finally rest in the area of selection.

This latter statement (it may be remarked), while anatomically correct, is clinically inadmissible. The average patient is far more affected by a pain produced in a part of the body away from his own observation than by the same amount of pain in a patent area. Inasmuch as we possess in cocaine an agent which in the majority of cases will prevent all pain, we should, it seems to me, always employ it unless there is some special contraindication. Its additional power to cause tissue anæmia is here only of secondary value, as one great claim for the operation is that it is practically bloodless.

Garel employs a slender pointed platinum needle, 3 to 4 ctm. long, inserted into a copper tube united with the negative wire. The needle is covered a varying distance with rubber, so as not to burn the skin, and is inserted 2 or 3 mm. deep in the region of the nasal projection. At first he used only a single point, but later has found it advisable to employ a small three-tined fork, the tips being near together. The cicatrix around this pole is soft and slightly retractile. The positive wire he led to a plate electrode covered with chamois or hydrophile gauze and placed upon the upper arm. On commencing treatment, his patients complained of dull pains in the nose. He could see bubbles of gas escaping at the site of operation, and on approaching the ear the faint crackling of the gaseous disengagement was audible. His *séances* lasted fifteen minutes, and a dosage of from 10 to 12 to 15 or 16 milliampères was registered On withdrawing the needle points, the sites of insertion were seen to be surrounded with whitish zones 4 to 5 mm. in diameter, and an eschar resulted, varying in size according to the depth of insertion. Two or three *séances* were often necessary to remove the offending mass. There were no disagreeable after-effects, except a little occasional headache. After some days the sphacelus was detached, leaving a sort of gutter-shaped cavity upon the salient point of the obstruction.

Garel has reported 30 cases thus treated, 26 men and 4 women, ages varying from five to sixty-two years. Eleven cases were between ten and twenty years; 12 between twenty and forty. Twenty-one cases presented a true, localized thickening from the normal plane of the cartilage, and in the remaining 9 the projection was associated with an adjacent depression. In 2 perforation of the septum resulted from the action of the current, but with no evil consequences. In 6 the operation was undertaken to obtain sufficient room for the subsequent removal of polyps. In one case, a nervous man, there was slight faintness at the commencement of the current; but he was quickly restored by the supine position, and was able to complete the *séance* without difficulty.

Peyrissac[1] reports a case treated by the monopolar method. His patient was a hospital interne, aged 26, who had nasal obstruction due to chronic coryza and enlarged turbinated bone on the left side. The right nostril was almost completely occluded by a septal spur, which impinged upon the inferior turbinated bone. The positive pole (a steel needle) was inserted into the spur and the negative (flat electrode) placed upon the nape of the neck. Intra-nasal insertion caused a momentary sharp pain in the incisor teeth. The current was quickly run up to 40 m.a., and the entire *séance* lasted twenty-five minutes. A ten per cent. cocaine solution was freely applied. The disagreeable subjective features were incisor pains, feeling of tension along the nose running to the cheek bones, a metallic taste at the base of the tongue, certain visual disorders, lachrymation, a sense of smoke in the room, etc. The needle was attacked for a length of 12 mm. Along the line of insertion was a grayish zone 4 mm. in diameter. The intensity of 40 m.a. was continued for four or five minutes, and held at 20 m.a. for fifteen minutes. A boric-acid wash was ordered. Slight pain in the nose continued for eight days, by which time the sphacelus had come away. A complete relief of all symptoms resulted.

Further contributions with reports of cases have been published by Botey,[2] Bolard,[3] Thilly,[4] and Strazza[5]. The first three merely duplicate the work of their French confrères. The article of the last named is not accessible to me. Bergonie[6] has made several observations in differ-

[1] Miot: Revue Mens. de Laryngol., 1888, p. 241.
[2] Garel: Annales des Maladies de l'Oreille, etc., 1889, p. 638.

[1] Peyrissac: Revue Mens. de Laryngol., 1891, p. 269.
[2] Botey: Archives Internat. de Laryngol., 1891, Nos. 8, 9.
[3] Bolard: Gazette Méd. de Liége, December 5, 1892.
[4] Thilly: Thèse de Lyon. Des Déviations de la Cloison du Nez et de leur Traitement par Electrolyse., 1890.
[5] Strazza: Boll. d. Mal. d'Orrechio, etc., 1892, p. 179.
[6] Bergonie: Bull. Gén. de Médicine, December 23, 1890; Rev. Internat. d'Electrothérapie, 1891–92, pp. 263, 314, 337; Journal of Rhinology, 1890, p. 517.

ent journals, but his views are fully embodied in the work next alluded to.

The foregoing *résumé* of the literature of this operation represents its status at the time when Moure and Bergonie[1] published their now classical monograph. They review the work of their predecessors, and express their hearty approval thereof. They have carried the technique to a degree of refinement not hitherto reached. They answer objections made by various rhinologists, and append a wealth of clinical experience. They discuss the general question under three headings:

1. Which of the two methods is preferable, the monopolar or bipolar?

2. In either case ought the electrolyzing points to be arranged singly or in series?

3. In the monopolar method which pole should be inserted in the offending mass, and where should the indifferent electrode be placed?

They answer these inquiries in brief as follows:

1. There are certain thickenings of the septum which have in proportion to their height a considerable prominence. Their base of implantation is narrow, and they can almost be regarded as pedunculated. Under these circumstances the monopolar method is preferable, but under all others the bipolar should invariably be selected.

2. A single point only should be used at each pole. Moure and Bergonie claim that since they have followed this course their patients have felt less pain, no perforations of the septum have occurred, and, except in very rare instances, the desired result has been attained in a single sitting. Somewhat elaborate diagrams are inserted in their text illustrating the "lines of flux" (Strömfaden) and the "lines of equi-potential"—that is, the direction and distribution of the current when acting upon tissue. Therefore, when only single points are used in either method, the lines of flux are concentrated upon the tissue to be removed, and not diffused over the surrounding normal area. We also avoid pain in the incisor teeth, salivation, phosphenes, metallic taste, etc., which all result from the lines of flux impinging upon sensitive nerve tendrils and ganglionic centres.

3. These observers find practically no difference between the destructive effects at the two poles. Garel prefers the negative pole.

The phenomena of reaction are less marked and the absorption of the necrosed mass more rapid.

Furthermore, G. Weiss,[2] in some interesting studies on the effect of electrolysis upon the essential elements of muscular tissue, finds no difference between the destructive results at the two poles. This latter observation is, it need hardly be remarked, distinctly contrary to the conventional teaching upon this subject. Moure and Bergonie find, however, that the detachment from the tissue of the positive pole very rarely causes a hemorrhage, while that of the negative is very often accompanied by a slight flow of blood.

Concerning the position of the indifferent electrode in the monopolar method, they express no positive opinion. Miot placed it in the patent nasal fossa; Peyrissac on the nape of the neck.

Since the work of Moure and Bergonie but one or two contributions to the literature of the subject have been made. Meyer[3] reported, before the Berlin Laryngological Society, December 2, 1892, a series of cases treated by the bipolar method. He used a sub-mucous injection of cocaine for the local anæsthesia. He carried, in some instances, the current up to a registry of 30 m.a. If there is any tendency to hemorrhage, he suggests a reversal in the direction of the current. Care should be taken to wait until the old eschar falls off before any renewal of the treatment is made. A neglect of this rule causes, Meyer believes, perforation of the septum, two instances of which occurred in his own cases. Otherwise he had no disagreeable results.

In the discussion which ensued on Meyer's paper, his optimistic views were confirmed by Rosenberg, but opposed by Flatau. The latter had tried the method, and abandoned it. He regarded it as painful, and had observed after it violent hemorrhages. Moreover, he believed that it destroyed only cartilaginous and not bony tissue.

Herying[1] reports three cases, all treated by the monopolar method. In two of them four sittings produced no favorable result. Owing to the pains in the head and teeth, the current could be borne for only two minutes (15 m.a.). To this short duration Herying attributes his lack of success. In one case a perforation of the septum resulted two weeks later in the shape of a long slit.

The bipolar method is doubtless the preferable one. The apparatus needed consists of: 1, a good galvanic battery of at least thirty elements and of a constant delivery; 2, a rheostat; 3, a reliable milliampère metre. It is advisable to arrange the circuit in the following order: Positive pole from battery, wire from latter to ampère metre, wire thence to rheostat, wire from latter to negative pole. The two terminal wires end in light clamps which support the needles. The latter are the ordinary steel sewing-needles of commerce. Those supplied for sail-makers are, from their size, finish, and fineness of point, in every way preferable. Their diameter varies from 0.5 mm. to 1.5 mm. and their length from 7 to 10 ctm. Steel needles are preferable to those of gold or of irido-platinum (Bergonie), because they penetrate the tissue more easily. No objection attaches to the possible action of the current upon the steel, because the salts formed thereby are salts of iron, not harmful and possibly hæmostatic. If curved needles are desired, the steel can be easily softened in the flame of a spirit-lamp and bent as desired. The attached ends are covered with a bit of fine rubber tubing (lengths of filiform catheters will answer), leaving exposed any desired length of point.

The depth of insertion varies, of course, according to the amount of tissue to be removed. The average duration of each *séance* should not exceed fifteen minutes, and the dosage should not exceed thirty milliampères; frequently fifteen are enough. In every instance the rheostat should be placed at the maximum of resistance, and then the latter be slowly and gradually diminished until the proper registry is observed on the ampère metre.

The object of all operations in the septal abnormalities is to detach the mass, in a section parallel to the normal plane of the septum, and the name proposed for this particular method is "electrolytic section."

It goes without saying that the rheostat and ampère metre must be carefully tested before the sitting is commenced. The current must be carefully raised to the maximum and as carefully lowered to the zero point. A boric-acid wash suffices to clear away the detritus about the needle-holes, and should be followed by an insufflation of some antiseptic powder (*e.g.*, stearate of zinc with aristol). An eschar is formed, which, after eight or ten days, comes away. As in all intra-nasal operations, it is impossible accurately to estimate the amount of space gained till several weeks have elapsed and the parts have had time to mould themselves into what will be their permanent shape. If the detachment of the sphacelus is only partial, some cutting instrument will easily pierce the small areas of adhesion. A galvano-cautery tip can be used to trim down any small excrescences which may remain about the edges of demarcation. No unpleasant after-effects are noted. In very nervous patients, or in those where a large area of tissue has been acted upon, there may be for three or four days after the sitting a slight pain at the root of the nose. Rarely the whole organ or one side of the face may be thus affected. The existence of pregnancy or the menstrual epoch contraindicates operation.

[1] Moure et Bergonie: Du Traitement par Electrolyse des Déviations, etc. Paris, 1892.

[2] Weiss: Revue Gén. des Sciences, 1890, p. 582.

[3] Meyer: Annales des Maladies de l'Oreille, etc., January, 1893.

[1] Herying: Therap. Monatsschrift, January—February, 1893.

We now come to the last inquiry of our discussion Does this method of treatment offer any advantages over other methods, and what are the limits of its application?

1st. First in its favor is the fact that it is bloodless. The oozing which may result from the withdrawal of the needles never amounts to more than a drop or two, and may be disregarded.

2d. The field of operation can therefore be kept in view throughout the entire sitting.

3d. There is no after inflammatory reaction[1]

4th. There is practically no possibility of after-intranasal adhesions or deformity.

5th. It is claimed that it is painless, though Monre and Bergonie admit that in neurasthenics and occasionally in some others the use of cocaine does not entirely obtund the local pain.

6th. It is a possible alternative in certain cases of marked thickening, associated with deviation of the septum, where an operation for straightening the latter is deemed unlikely to prove successful. This latter procedure is confessedly one of the most unpromising, as to eventual results, in the whole domain of intra-nasal surgery. It is comparatively easy to keep the septum straight until the parts have healed; but months after it is frequently found that the deformity has returned, and occasionally "the last state of that man is worse than the first."

7th. Electrolysis will frequently be allowed by nervous patients who would refuse a cutting or boring operation of any kind.

8th. The laity attach such importance to the workings of electricity upon the human body, that this procedure might appeal to them when all others would not. This argument is, of course, puerile from a scientific point of view, but possesses, nevertheless, a certain ethical value.

In every country outside of France, rhinologists are wedded to the cutting and straightening forceps of various kinds, with subsequent technique, to the saw or to the trephine, drill, and burr. Certain of these measures require general anæsthesia. All of them are more or less bloody. After the first cut of the saw or thrust of the trephine the field of operation is obscured despite our utmost care, and we work by faith rather than by sight. Before it can be cleansed properly the effect of the cocaine wears away. Secondary or renewed cocainization often fails entirely with any safe quantity of this powerful drug.

So far as the pain is concerned, most operations with the drill and trephine are free therefrom; in fact, surprisingly so. The use of the saw is more disagreeable, as a longer time is required to complete the work. Thorough cleansing with subsequent antiseptic treatment and the sealing of the wound with collodion, as suggested by Freudenthal and others, render disagreeable reaction the exception and not the rule.

Somewhat against electrolysis is the fact that an elaborate outfit is required. Galvanic batteries are as yet the *bête noire* of physicians. Even the best of them are more or less capricious in their action. Furthermore, allowing that it takes the same time to arrange the electrical apparatus as the drill or trephine, the actual time of operation is much greater with the former than with the latter.

The histories of two personal cases, treated at the Roosevelt Hospital, Out-Patient Department (Service of Dr. Jonathan Wright), are herewith given. The apparatus used consisted of a thirty-cell Waite and Bartlett battery, horizontal ampère metre, carbon rheostat, and steel needles. The latter were No. 5, of the ordinary variety used by seamstresses, and measured about 5 ctm. long with a diameter of 1 mm. They were inserted in hard rubber handles, which were then bound together with silk thread, so that the needle points were about 1 ctm. apart. The bipolar method was employed in both instances.

Case I.—J. B——, male, German; aged sixty one; watchman. Father died of phthisis, aged seventy. Patient's previous health always good, except that he has been quite deaf for the past two years. No specific history, and no previous complaint of any nasal or throat trouble. For the past five weeks has noticed slight pain on swallowing; post-nasal dropping, with considerable increase of buccal secretion. Is short of breathing on lying down; no hoarseness or cough: digestion somewhat at fault.

Physical examination showed some post nasal catarrh, with a general hyperæmia of the pharynx and larynx affecting also the vocal cords. The uvula was somewhat enlarged. (A simple astringent gargle quickly relieved all throat symptoms.) The right inferior turbinated was also enlarged, and the cartilaginous septum was somewhat deviated to the left. About half way back on the left side was a large, blunt ridge, running downward and backward, touching the left inferior turbinated, itself hypertrophied; marked obstruction to air-current on left side; moderate pulmonary emphysema.

The septum was cocainized (ten per cent.) for eight minutes, and the needles inserted at about the middle of the ridge. Twenty cells registered 15 m.a., and the current was continued for six or seven minutes. Depth of insertion of the needles about 1 ctm. The patient complained of quite a little pain at the site of operation, and as this was a first venture it was deemed unadvisable to prolong the sitting. All disagreeable sensations ceased on withdrawing the needles, and there was no bleeding. Antiseptic wash was ordered for the nose.

Four days later the patient was seen again, and it was estimated that the offending mass had lost about one-third of its bulk. The treatment was repeated as above. At the third visit it was noted that the mass had still further decreased in size; but a small, round perforation was noticed at the site of the first insertion. The patient then passed from under observation, and the ultimate condition is not known.

Case II.— B. W——, female, German; aged twenty-two; married; housewife. Family history good. Previous personal history negative. Married seven years; no children, or miscarriages. Has had occasional slight cough for the past seven years, rather more the past three months, during which time she has had nasal stoppage on the left side with frontal headache and a sensation as of a foreign body in the back part of the left nostril.

Physical examination showed the cartilaginous septum deviated to the left posteriorly with a blunt spur on its left anterior inferior aspect projecting nearly one-half inch from the septal plane. Electrolysis applied as in Case I. (cocainized), 9 E. = 9 m.a.; duration five minutes; very slight pain in nose. Two days later spur seemed reduced nearly one half. Electrolysis was again applied; but 2–3 m.a. for five minutes caused considerable intra nasal pain; and if current was increased this was felt also in the incisor teeth. Patient complained of some pain after the needles were withdrawn. Five days later, October 19, 1891, third sitting, 20 E. = 10 m.a., five minutes. No disagreeable sensations. Spur still further reduced in size.

October 21st.—Cautery to left inferior turbinated.

October 23d.—Cocaine fifteen minutes. Contact of needles seemed to cause intense pain, and patient became somewhat hysterical, requiring a discontinuance of the sitting. Potass. brom., gr. xv., given four times daily.

October 27th.—Tried 20 E. with same result as at last sitting. Pain even more severe. This disagreeable experience was again felt on November 3d, so that the last two sittings had no effect on the eventual result. Patient again seen December 7th, when it was found that the spur had entirely disappeared. There was some post-nasal dryness, but all intra-nasal symptoms had disappeared.

[1] [Schönemann reported, before the Berlin Laryngological Society, Session of April 24, 1893, two cases of electrolysis treatment, in one of which caries of the septum had followed operation. In the ensuing discussion Peltesohn and Rosenberg denied that the condition described was one of true caries.—Revue Mensuelle de Laryngologie, No. 10, 1893.]

The data furnished by these two cases are, of course, entirely too meagre to afford a basis for any comprehensive opinion, but one has impressions from every case, and these two cases demonstrated to the writer's satisfaction the feasibility of this plan of treatment. At the same time he believes that the use of the trephine would have brought about the same results far more quickly, and that is, after all, his belief thus far in regard to the whole matter, viz., that whatever can be done by electrolysis can be, by other means, accomplished more quickly. On the other hand, after making all due allowance for Gallic optimism, the statements of the Continental workers cannot lightly be thrust aside. Electrolysis ought not, therefore, to be at once placed under the ban. It deserves a further trial, which the writer hopes to make. With additional experience and improved technique, his future reports may assume a more hopeful and enthusiastic tone.

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SOME FACTS REGARDING CHINESE MEDICAL PRACTICE, WITH A BRIEF HISTORY OF THEIR METHOD.

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The Chinese have received the credit of possessing a written language second only to the Hebrew in the date of its origin; and although they have had at all times numerous and prolific writers, still the history of the Chinese is strangely unreliable, being a sad mixture of sense and nonsense, fact and fancy. So thorough is this admixture and so determined has been the seclusion of this nation, that much of its history prior to the remarkable visit of Marco Polo in the thirteenth century A.D. must forever remain enshrouded in doubt. It is therefore a most difficult task, and at times an impossible one, to eliminate the errors that have been gathering for ages in the records of China, and place before the reader only unalloyed truth. Owing to this condition of things, it is little wonder that enthusiastic writers give some surprising accounts from time to time regarding the wonderful achievements of the ancient Chinese in the paths of science; but I think that in every instance of this kind we are justified in entertaining doubts as to the accuracy of such statements, for these writers are invariably prejudiced in favor of the Celestial Kingdom, and can find in the historical records of the Chinese a basis for illimitable flights of fancy: reasoning from analogy, they record as true many very questionable parts of Chinese history. The Chinese are now and always have been a poetic, superstitious race, notwithstanding their stoicism; and being in a lofty state of paganism it is perfectly natural that they should worship numerous deities. Some of these are reverenced for their reputed feats in the art of surgery, or for the miraculous cures they have wrought; but many of these gods are as purely mythical as are Esculapius and Hygeia of the Greeks, while the remainder if shorn of their antiquity would speedily fall into disrepute.

An abundance of evidence can be adduced to show that Chinese knowledge of all matters of education is as perfect now as it ever has been, and that their ability to arrive at ultimate principles is fully as great as it was two thousand years before Christ or at any other period of their existence; and we find China to-day absolutely barren of science.

If scientific medicine and surgery had ever been known to the Chinese, as some would wish us to believe, some traces of them at least would have been preserved in their historical records; whereas we find running through all their literature of this subject, from the earliest times down to the present, accounts of the anatomical construction of the human body and of its physiology so glaringly inconsistent with the facts as we know them, that we are forced to deny them the renown of ever having possessed a knowledge of a subject the very foundation of which they have shown themselves so densely ignorant.

The statement has been made by someone that "the Chinese must have dissected in earlier times to have possessed so good a knowledge of minute human anatomy," but a mere glance at some of their anatomical and physiological teachings, and which they implicitly believe, will readily show that they know next to nothing of even the grosser parts of these subjects. All the great authorities, living or dead, teach that the lungs are divided into four large and two small lobes; that the larynx passes directly into the heart, and that the small intestines are intimately connected with the latter; the liver has seven distinct divisions, and the skull, the framework of the fore-arm, pelvis, and leg consist of a single bone each! The heart is the organ of thought. I may say, parenthetically, that I have not been able to find a Chinaman who thinks that he is the fortunate possessor of two hearts, as some writers have observed. Schemes emanate from the liver, and courage resides in the gall-bladder. Hence the bile of tigers and lions is taken by those who wish to enter the lists for bravery. The urine passes at once from the small intestines into the bladder through the ileo cæcal valve. The kidneys of males secrete the seminal fluid in conjunction with the testes, which are called the "outside kidneys," while those of females have some mysterious influence over the function of menstruation. They entertain vague and numerous ideas regarding generation. By the quality of the radial pulsations of the right hand in man, and the left in woman, they pretend to be able to understand the condition of the lungs, spleen, intestines, and right kidney; and that by palpating the pulsations of the opposite hand, the condition of the heart, liver, and left kidney is revealed to them. It will be seen that they are in blissful ignorance of the true function of circulation.

The cerebro spinal and muscular systems and osteology are almost entirely ignored by them as being of but little real importance in the human economy, and the absorbents seem to be quite unknown. Therefore the pulse, which is the index to all organs of recognized importance, always receives the lion's share of attention. Judging strictly by our present light and without drawing upon our imagination, we can be very sure of the actual status of the practice of medicine and surgery of the Chinese in the past and at the present time; and we will receive no inconsiderable aid to an opinion concerning its future if we examine the teachings of the two great religious or moral leaders of this people—Buddha and Confucius—whose following for centuries has numbered, with unimportant exceptions, the entire population of China. It is the *summa summarum* of ancestral worship to "serve the dead as the living, the departed as the present." Thus Confucius, five hundred years before the beginning of the present era, established a most formidable barrier to the extension of scientific medicine in China by preventing the study of anatomy on the cadaver and all research in the field of pathology; and this obstacle is liable to retain its formidability for generations to come. It is true that a few post-mortem examinations have been secretly held in the name of science by foreign practitioners on the bodies of natives, but it is a courageous and not altogether thoughtful person who would undertake to do this under the present *régime*. Buddha, whose memory our friends the clergy and laity of Great Britain are now striving to keep green, was the king of anti-vivisectionists; and due to the zeal of his followers the study of practical physiology and therapeutics is more sadly handicapped here than, let us hope, it ever will be in countries enjoying a higher state of civilization. These questions and others quite apparent severely militate against the possibility of any appreciable change in medical practice here in the near future; time will have to be given in order to educate the masses of the people up to the Western standard before Western medicine can

be taught with safety, or even practised in its fullest, highest state of perfection upon Chinese territory.

There is good evidence to establish the claim that the Chinese were the first among nations to found anything approaching a system or method of practice, and the native medical fraternity takes the greatest possible pride in this its single distinction. I should not like to be understood as saying that theirs is a systematic scheme by any means, but as there is no other term to express my meaning briefly, I shall use it and other terms throughout this article metaphorically.

Their medical literature demands our consideration, if not for any valuable additions to science contained therein, at least for the vast number of its authors and for the historical interest attaching to a method which has extended over so many centuries. In the reprehensible command of the Emperor Che Hwang Te (214 B.C.) to burn all books in order that Chinese history might begin with his reign, exception was made of all books bearing upon the subject of medicine, and we thus have an unbroken and very long line of literature.

Probably the oldest "medical book" extant is one containing all traditional knowledge of medicine handed down from the most remote times, and is said to be from the hand of Hwang Ti (2697 B.C.). Be this as it may, there is good reason to believe that it antedates all works of a similar character, whether by Hippocrates or other ancient writer. The same author has written a voluminous work on "Internal Maladies" and acupuncture, which, after being revised in the eleventh century A.D. by Wang Ping, now forms the standard authority on these subjects. From the time of Hwang Ti to the present, there has been a constant production of books on the practice of medicine, some of which are marvels of patient industry and perseverance, as a few citations will corroborate. Nearly every doctor in the past three or four thousand years who has had a grain of ambition in his make-up has published his "Notes on the Pulse," "A Guide to the Pulse," or something else regarding this fetich of the Chinese, and there is consequently an extensive and most fanciful literature of this particular subject, which is after all so little understood by them.

Choo Suh, an Imperial prince of the early Ming dynasty, wrote a "Guide to Therapeutics" of one hundred and sixty-eight books. The author writes nineteen hundred and sixty essays on over two thousand different subjects, compiles more than twenty thousand prescriptions, and uses two hundred and thirty-nine diagrams to aid the text.

The great materia medica of the Chinese was finished in the sixteenth century A.D., and is complete in fifty-two books. Le Se Chin, the author, made extracts from upward of eight hundred authors, and consumed thirty years in the preparation of this work. It contains eighteen hundred and ninety-two remedies arranged in sixty-two classes under sixteen general divisions. The text is supplemented by numerous illustrations, and under the name of each substance there are copious explanations, to which are appended the physical properties of the drug and its applications, with prescriptions. This effort in book-making is a credit to the country as well as to the author, and is an excellent example of the incomparable tenacity inherent in the Chinese.

The Chinese materia medica offers some possibility of reward to diligent investigation. Some work has already been done in this field, but there remains a vast unexplored region which may hold many gems of priceless value to the human race if they could only be brought to the hand of the skilled pharmaceutical lapidary.

Much of the active principles of Chinese drugs must remain hidden to them, and enter and leave the body with negative physiological manifestations, because of the crude and primitive methods employed in their preparation and administration; but even under these disadvantages, no one who will take the pains to observe can deny to the musty prescriptions of Le Se Chin a certain potency. While the materia medica contains much of value, it also has classified as remedies substances which are too loathsome to admit of mention in English print, and must be submitted to ocular demonstration to convince the nineteenth century European of their existence. These indigenous products we abandon at once with no thought of investigating their claims to virtue, believing that *ægrescit medendo*, let the disease be what it may.

Then again there are substances occupying an intermediate position between the undoubted good and the worse than worthless, which by their oddity attract our attention and compel the question whether there may not possibly be some subtle virtue in them after all. This possibility receives strength from the fact that these people, who have an international reputation for their love of money, place such confidence in the healing powers of this class of remedies as to pay fabulous prices for them.

There are no institutions in the Chinese Empire devoted to teaching native medicine. There is a medical body at Peking, which has been called by some writers the "Imperial Medical College;" but this translation is in error, and it would be more nearly correct to speak of this organization as the Imperial Medical Board; for it neither teaches medicine nor grants certificates to practice, but its principal function is the care of the Imperial Family. This Board has some nominal authority in medical matters throughout the Empire.

The meagre education possessed by Chinese doctors is generally acquired, first, by reading; and lastly, from the clinical instruction of a preceptor. The reading covers any length of time, depending entirely upon the ambition of the reader; for there are no legal requirements to be met in this, and only absolutely inactive laws governing his deeds or misdeeds as a practitioner. His study is supposed to include the nine branches recognized by the Imperial Board, and are as follows: Diseases of the great blood-vessels and small-pox; diseases of the lesser blood-vessels; fevers; female complaints; cutaneous diseases; acupuncture; diseases of the throat, mouth, and teeth; and diseases of the bones.

When the medical student is apprenticed to some established doctor, he is admonished to persevere in his efforts to "understand" the pulse, for as no man has yet succeeded in fathoming these immeasurable depths, it stands him in hand to be diligent in this if he wishes to gain distinction among his fellows.

Besides the attention given to the pulse, the student while with his preceptor must learn to compound prescriptions and the art of acupuncture and the other very simple surgical operations performed by the Chinese.

The time to be spent in this way, like that at his books, is purely optional with the student; and he is permitted to "hang out his shingle" just when it pleases him to do so.

As already noted, there are no active laws controlling practice in China; however, Sec. ccxcvii. of the Code orders that "whenever an unskilled practitioner, in administering medicine or using the puncturing needle, proceeds contrary to established forms, and thereby causes the death of a patient, the magistrate shall call in other practitioners to examine the medicine or the wound, and if it appear that the injury done was unintentional, the practitioner shall then be treated according to the statute for accidental homicides, and shall not be any longer allowed to practice. But if designedly he depart from the established forms and deceives in his attempts to cure the malady in order to obtain fees, then . . . he shall be treated as a thief; and if death result from his malpractice . . . he shall be decapitated." This is stringent legislation indeed, and if it were to be enforced would soon result in a dearth of Chinese doctors: it is in fact simply a dead letter. The district magistrate or his deputy alone holds inquests on all cases of accidental death, suicide, and homicide; and money almost invariably secures pardon to the homicide, whether he be doctor or layman, even though an innocent vagabond or a petit criminal has to be sacrificed for the sake of appearances.

A doctor may set up as a general practitioner or elect to practice as a specialist, just as he desires. So we find the "all 'round doctor" the specialist in each of the nine branches, and numerous others practising as specialists in departments not included in the official schedule.

The obstetrical field is entirely in the possession of the midwife, except when foreign physicians are available. It is true, a woman in the beginning of labor generally receives a visit from her doctor, who sends medicine which is intended to allay the pangs of childbirth; but the entire conduct of the labor is in the hands of the midwife, who makes all necessary examinations, directs the attitude of the parturient, and on the whole is a martinet in the lying-in room. In all cases of normal labor the patient does not assume the decubitus, but kneels on the floor with a small wooden tub between her knees to receive the discharges, or sits on two chairs which are widely enough separated to admit delivery between them. When the child is born the midwife ties the cord, and cuts it with some dull article, such as a knife made of bamboo or a piece of broken crockery. Unless the afterbirth now presents, the patient retires to her bed, and the third stage of labor is completed in the recumbent posture. The parturient is left quite undisturbed. There are no vaginal irrigations, no binders, and no means, internal or external, employed to insure the involution of the uterus. The omission of support to the relaxed abdominal muscles, and through them to the now empty uterus, is undoubtedly much less felt by these women, whose muscles and viscera have not become habituated to the use of stays, than it would be by their Western sisters. If the labor be protracted the midwife endeavors to determine the cause, and if due to malpresentation strives to overcome it; and some of these attendants attain to considerable skill in this, when we take into consideration the erroneous ideas they possess of the mechanism of labor and of the anatomy of the parts involved. When the labor is very prolonged, often lasting several days, the patient takes her bed from sheer fatigue and resigns her body with superhuman fortitude to the horrible mangling of the midwife. When an extremity presents and delivery cannot be effected by traction applied to this, the attendant hasn't the slightest hesitation in removing the offending member with a kitchen knife. It is due her, however, to say that this is seldom or never resorted to until viability is supposed to have ceased. The only "instruments" used by the midwife are the knife referred to and a small sharp iron hook. Natural labor is apparently very easy with the Chinese woman, and it is not unusual to find her up and dressed within a few hours after delivery, although a woman of the higher classes is expected to keep her room for about one month.

There is no scale of charges for attendance on the sick, a great deal depending upon the character of the illness and the social and financial standing of the patient. The theory is "no cure no pay," except chair or cart hire, which is always paid by the patient. If a doctor is called to see a case which in his opinion cannot recover, he never leaves or prescribes any medicine, but simply takes his quiet leave, with no thought of rendering a bill for the visit; and the friends of the sick prepare to go into mourning or seek another doctor, just according to the degree of confidence they have in the one who has made his gloomy prognosis. When a patient is first seen by a doctor the following routine is strictly adhered to: The doctor searches the face, asks to see the tongue, listens attentively and with Job-like patience to all the patient and his friends have to say concerning the past and present illnesses with which the patient has been or is afflicted, and then, after a sufficiently long pause to lend dignity and *éclat* to the announcement, he gravely states his desire to examine the pulse; it is at this stage of the proceedings that a scene is generally enacted which sorely tries a Westerner's gravity. One would think that, as this announcement had been made at every attempt at diagnosis for pretty nearly four thousand years, it would by now have become a trifle commonplace. But not a bit of it. The pulse (I always feel like using the capital when writing it of late years) is too mysterious and hallowed a thing to be degraded by the simple flight of a few tens of centuries; and as the doctor begins his palpations by placing three fingers first upon one radial and then upon the other, for reasons given elsewhere, the sickroom, which is generally filled with the relatives and neighbors of the sick and has up to the present been a second Babel for noise, is suddenly hushed and word is passed, "The pulse is being examined!" and upon the faces of many is plainly written reverential awe.

The patient, when the doctor is ready to examine the pulse, clears his throat, often performing a series of expectorations, and then calling for a book, a cushion, or a low stool, upon which to rest the arms if lying down, composes his body and submits to the ordeal. It matters not whether the disease be local or general or both, the pulse is invariably attended to, whereas the local conditions are frequently entirely ignored. They would as soon think of holding an autopsia cadaverica as of inspecting, ocularly, disease located about the genital and anal regions.

The Chinese doctor believes in and practises polypharmacy to a superlative degree, and he has learned that results can only be obtained from his crude preparations by the administration of surprisingly bulky doses. A single dose of medicine is prescribed, and if relief is afforded the patient it is repeated and continued until the patient is well, or until it fails to fulfil the expectations of the sick or his friends. If the patient at any time does not experience the benefit he thinks he ought from taking a medicine, his doctor at once tries something else, with no thought of questioning the wisdom of such an act. The doctors have a very convenient habit of screening their ignorance, if a disease pursues the even tenor of its way despite their efforts to retard it, by saying that it is caused by the presence within the patient of one of the many evil spirits which are recognized in China. Medicines having no influence over this class of cases, religious incantations are resorted to with a view of dislodging the enemy. These performances are varied and interesting to the student of psychology; but their details do not concern us now, and I shall only remark that few actual invalids survive the fearful din. The credulous continue to be duped, however, by promises of reward in the future life, if life here cannot be prolonged.

Their "external treatment" of disease, as they term surgical practice, is quite as empirical as their practice of medicine. The results of surgical treatment, generally appealing directly to the mind through the sense of sight, which is less liable to err through psychical influences than are the other senses, force the Chinese to accord to foreign surgery a superiority over their own manipulations, which defence Western medicine is somewhat slower in securing. Their surgery is based upon the theory that there are intimate connections between the external surface of the body and the structures within, and that treatment applied externally not only affects the immediate tissues, but their deep connections as well. Charts of the body surface have been made, mapping out three hundred and sixty-seven distinct areas, with their minute inner connections elaborately detailed. With this theory dominating practice we cannot be surprised at the frightful results of treatment and neglect to be found on every hand, and in such abundance as to place China in the unenviable position of being the richest country in surgical cases on the face of the earth.

Owing to the almost entire absence of complicated machinery in mine, factory, and transit, there are comparatively few of the severer accidents characteristic of the densely populated regions of the Occident; and when these do occur little help indeed is afforded by the native surgeon. Capital operations are never done, dislocations seldom reduced, and fractures only ineffectually supported —and generally the member is splinted up in the position assumed at the time of the doctor's visit; the results can

be readily imagined. They have no mechanical skill to enable them to ligate a bleeding vessel, even though it is freely exposed, and no anatomical knowledge to direct them in making appropriate compression. Because of this they are thrown into a panic at the appearance of even a slight bleeding, and exert themselves to the utmost to avoid inducing hemorrhage; and their every surgical interference—with a single exception to be noted hereafter, which is done, however, in compliance with the commands of the Emperor, who assumes all responsibility—is carefully planned to this end. When bleeding occurs, the application of some styptic—such as cold water, strong infusions of tobacco, tobacco leaf cut fine, powdered ginger, ashes, etc.—to the part is the only means they employ to stanch the flow.

Incised wounds are occasionally stitched, but as the Chinese are entire strangers to antisepsis, or common cleanliness even, the object of the suture is rarely attained. In general, however, small wounds and discharging surfaces are sealed with a black plaster, which is worn until it drops off; while over the larger sores is bound an oiled paper, which most effectually retains the acrid secretions, rapidly making a bad matter worse.

A slight hare-lip is sometimes made to unite by inducing granulations by the application of an escharotic; lateral pressure being employed during the granulating period. Attempts are made to relieve the very common entropion by planting an eschar on the redundant palpebral fold, either by a caustic application or by clamping a portion of the skin between two pieces of bamboo, which are left to slough off. Tumors of whatever character, and when offering sufficient promise of cure for a doctor to risk his reputation upon the trial, are sometimes treated by the application of strong caustic in the form of a plaster; this, with the omnipresent dirt, induces general sloughing of the tumor, which, if benign, and the patient rugged, may be finally eliminated, but with a most unsightly eschar on its site.

Acupuncture receives the same proportion of attention from the Chinese surgeon that the pulse does from the physician. It is practised in every possible variety of accident and disease, from a dislocation to a gleet.

The needles used for this purpose are of steel or silver, and are made in nine different forms, from the short thick arrow-headed form down to the long slender needle proper. When it has been determined to perform acupuncture in a disease or injury, one or more of the three hundred and sixty-seven areas supposed to be involved is selected, and a needle of the proper form, either heated to a dull red or quite cold as the case appears to demand, is slowly pushed into this area, often to the depth of several inches or until the needle impinging on bone renders its further introduction impossible. This is as barbarous as it is foolish, but it is something remarkable to note the amount of this indiscriminate prodding the human body will tolerate.

Counter-irritation is another very popular mode of treatment, and it has a wide application. When energetic irritation is indicated the moxa is invariably used; this is extensively used in the algid stage of cholera, and often with undoubted benefit. There are many ways of producing a milder form of counter-irritation, but the one in greatest favor, and which is practised much by the laity, is by nipping up a portion of skin between the knuckles of the index and middle fingers or between two coins: this process is continued until a deep ecchymosis is produced which lasts for several weeks. It is a common and grotesque thing to see these purple spots upon the temples, between the eyes, over the gullet, or upon the extremities of the people who daily throng the streets.

The only operations performed which involve the use of cutting instruments are the occasional lancing of a very superficial abscess by an unusually bold surgeon, and castration. Archeotomy is sometimes performed as a mode of punishment for certain grave crimes, and is always done to provide servants for the Imperial Family. A Chinese razor is used for opening abscesses and a sickle-shaped knife for the castration. There is a place, near one of the gates of Peking, where the royal servants are "prepared." At one sweep of the knife the penis and scrotum with its contents are removed on a level with the skin of the pubes, a metal plug quickly inserted in the urethral orifice, a cloth wrung out of cold water firmly bound on, and the "operation" is completed. At the end of three days, during which time the patient has been forced to abstain from drink, the initial dressing is removed and the bladder allowed to evacuate its contents.

This proceeding seems to be fairly satisfactory in its results, as only about two per cent. of the cases prove fatal from all causes. This mutilation is frequently self-inflicted by the Chinese as a penance for transgression of the seventh commandment; of these self-inflicted cases a large per cent. recover.

They are quite ignorant of anæsthesia; however they use opium, cannabis indica, and datura stramonium to produce narcosis, which may be so profound as to render painless many of their surgical procedures, but this cannot by any possible stretch of the imagination be classed as analogous to the valuable discovery of Guthrie and Liebig.

The medical fraternity possesses the characteristic conservatism of the race, and we find very few measures in general use which are not of undoubted Chinese parentage. In fact, I can now only recall three agencies that have been introduced into China from other countries, and which are used by the native doctors in the prevention and treatment of disease. These are vaccination, opium, and cinchona. Vaccination against small-pox was introduced to the notice of the Chinese in the eighteenth century, probably soon after its discovery; and they have not been slow to recognize in it a powerful defence against a blighting enemy.

WHAT THE POOR MAN CAN DO TO ESCAPE CHOLERA—AND THE DOCTOR.[1]

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Be not dismayed though germs pestiferous infect the sky
And scientists delight to rouse them from their lair;
For healthy tissues germicidal are,
And normal functions duly exercised will scare
From uncongenial soil these low bacteria.

SINCE devoting my medical thought and endeavor to the prevention rather than to the cure of disease, and toward arousing in the public mind an enthusiasm for healthy living and physical perfecting, it is with even a sense of satisfaction that I admit that my knowledge of cholera is entirely second hand and my acquaintance with disease rapidly narrowing in favor of a specialty of health.

The Sabbath was made for man, and modern man, it might be inferred, was designed for the amusement and support of germs; ergo, why are not germs entitled to their day of rest, lest in the rounds of so general a practitioner they too succumb to nervous prostration and overwork? "To the germ theory, now accepted by a large majority of the profession, we are indebted for the recognition of the true agencies operating in the spread of cholera, and consequently for an ability to better meet them and neutralize them." This invaluable working hypothesis is a part of our medical theology, however, and the analogy is sustained in the comforting reflection that the every-day man need not understand theology in order to be saved, but must live purely, naturally, and act righteously.

Now, law is intended for sinners; and germophobia does its fine work among the criminal classes—those who get sick, I mean, through wilful or indifferent violation of the hygienic precepts of the physical decalogue.

[1] Read before the Maryland Medical and Chirurgical Faculty, 1893

Speaking with strictly scientific accuracy, man should be a noun of the feminine gender, for women outnumber us, and are our superiors, it seems to me, in a majority of the essentials of true manhood, barring those chiefly which we are accustomed to express in terms of the biceps, diaphragm, and gastrocnemius. Again, the poor woman is often immeasurably the better off in her health endowment and healthful views of life generally than her rich and fashionably disfigured sister with her corset and other luxurious ailments, impeded powers of respiration and locomotion, and consequent dread of exercise: her horror of fresh air and sunshine and her languid interests and sympathies.

Says the author of "The Well-Dressed Woman"—a master book of its kind, showing medical intuitions and masculine logic rarely found on such a theme in the opposite sex—"Gynecology is largely a monument to the follies of woman."

Ely Van de Warker, in the MEDICAL RECORD, February 18, 1893, seems to think so too, and this eminent specialist deprecates the routine use of the speculum, and even the occasional use of the sound, and credits "local treatment" with a large concern in creating the "morbid mental condition" known as "womb on the brain." What are we coming to, may I ask, in our adoration of pathological states and doings in low life generally? "In Germany, the recent graduate too often regards his patient 'as the incidental appendage to a more or less interesting morbid process.' Is the practitioner to take a 'back seat' while the test-tube, the microscopical slide, and other instruments of precision often wielded by mere theorists are usurping his powers and functions? The chemist or bacteriologist is merely an assistant of the true physician. The patient and his personal sufferings are not to be lost sight of, nor will the sick man be content to be regarded as a mere culture-medium or a source of interesting secretions and other specimens" (MEDICAL RECORD). These strictures are certainly entertaining reading for the health specialist and must be his apology for a reappearance in the domain of medicine.

Our contention is, as fully presented by Dr. Welch in his recent lecture before the Sanitary League of Washington, that bacteria are possibly contemporaneous with man: that they confined their attention in the days of our first parents strictly to their own business—the beneficent "breaking-up of highly organized substances and the preparing of food for the higher plants;" that our ancestors knew nothing about them and bothered less, and that we, their degenerate and spendthrift offspring, should store up a little surplus health for our progeny by mending our ways and quitting our civilized foolishness, or the world will be given over to the germs, and man become the lowest of the "lower (?) animals." No tombstone or monument has ever been erected to a mule, for example, because it is a matter of history that none of his tough proud ancestry ever were caught "dead." What must his reflections be as he assists at a funeral in Greenmount, or scans the obituary poetry of the *Sun*, or the rate of colored infant mortality in the District? He knows too well that full compliance with man's civilizing processes would be also death to him, and so in his mulish wisdom remains intractable.

We can't "fool all the public all the time." The same protective instinct shields the masses as it does the animal creation. To the general public there is but one system of medicine, and it is the equal heritage of all honestly purposed, common-sensed, fairly educated practitioners. No school but that of experience confers its degree, and the most successful exponent thereof is he (or she) who most reverences nature and joins to ordinary attainments the faculty of recognizing human limitations and ignorance. Zymotic diseases are chiefly a reproof to the selfishness or indifference of crowded communities—to the amazing and disgraceful ignorance and contempt of health ideas, to personal and municipal laziness and uncleanliness, and to the languid protests of "those who know these things." Science and nature equally preach the doctrine that thorough sanitary work practised by the authorities and by the people will secure exemption from all these forms of pestilence and from many other maladies of which the public stands constantly in dread.

The Washington *Star*, on April 17th, published an account of how a young minister in South London, with six thousand mechanics, mostly poor, in his parish, formed a committee of visitation during the cholera scourge, some twenty-eight years ago, and at a cost of about $250 cleaned up generally every house in a friendly co operative spirit, and kept the cholera in unbroken quarantine, not a single case crossing the boundaries of cleanliness, though many cases occurred just across her borders, where the rector was often called to minister to the dying. It is far better to quarantine the filth and isolate the dirty and the lawless than to keep brave, healthy, cleanly people cooped up in a Normannia twenty days, which savors more of a cholera culture experiment. Von Pettenkofer's and Emmerich's swallowing of the cholera bacillus justifies the assertion that if we can "make ourselves and our homes 'cholera proof,' we need not fear even infected water." Granting that the experiment produced a mild form of cholera in each subject, the brave old scientist, seventy-four years of age, diabetic, without a tooth in his head, and with other infirmities of age, took all precautions to encourage the germs, neutralized the acidity of the stomach, used no medicine during his attack nor altered his diet, pursued his usual avocations, and escaped with some colic and diarrhœa (MEDICAL RECORD, January 28, 1893). He himself admits that his experiment might have had a fatal result if it had been carried out in Hamburg, where the factors dependent on place and time ("local disposition") were different. The editor concludes that "the senseless panic of last fall must not be revived by an appeal to this mental pabulum, even if we do get some cholera this summer. I believe, of course, in "personal immunity" as a term which explains what is quite unintelligible as yet. Why not encourage it to become epidemic, when it might be found to coincide very neatly with personal hygiene and cleanliness, external and internal, or inherited vigor?

One of my professors was an aggravating exempt of this kind, and I have heard it said "he never took anything," contagious, or otherwise, I mean. His neatness and freshness of skin were quite noticeable. He was considered a sort of hygienic crank, of course, and I have a pamphlet by him, entitled "House Air, the Cause and Promoter of Disease," which settles it. The practical and cultured McSherry turned aside from paths of disease to offer the public "Health, and how to Promote It," a literary treat outside of its excellent subject-matter. The elder Chew reasoned of mental health for medical students in true classical form.

Have I forgotten the "poor man"? Oh, no, I have had him in mind all the time. He must play an intelligent, passive rôle first, then a very active one. His needs are principally education, by precept and example. Our present able and energetic Health Department have issued from time to time admirable instructions in print on the care of infants during the hot season, the prevention of the spread of diphtheria, etc. The public cannot too clearly understand that medical science has nothing more valuable to offer than its non-medicinal suggestions, grounded on clinical and laboratory research—health maxims which, as the Paris profligate told his doctor, "any fool knows" something of, and which, I may add, all fools decline to pay for except in bitter personal experience.

Dr. Abbott, late bacteriologist at the Johns Hopkins Hospital (an out-and-out germ specialist, with practical experience, however, as deputy health officer of the port of New York), as a result of observations made at Swinburne Island during last September and October, speaks of the treatment of Asiatic cholera (MEDICAL RECORD, March 25, 1893), after remarking that the cholera death-rate, which on board most of the steamers was over ninety

per cent. of the total number of the sick, was reduced at Swinburne Island to twenty per cent. with further prospects of improvement—urges that opium and all its derivatives, as well as hydrate of chloral, bromides, etc., should be avoided, as depressing the action of the heart and the vitality of the patient. He condenses his therapeutic and germicidal tendencies into the words, "Wash out the blood (to free it from ptomaïnes), wash out the intestines (the localized seat of the pathogenic germ). Protect the alimentary tract from irritation (by rest and careful dieting), use hot-air baths and massage when the temperature of the body needs maintaining—make the nutrition of the patient your principal aim. Any case of diarrhœa in a cholera-infected locality should be considered as suspicious and intestinal lavage with tannin and sterilized water administered. Dr. Alan P. Smith much prefers the use of gum opium to any of its derivatives when quiescence is imperative; and fractional doses of calomel are also of service.

My own mucous membrane, thanks to the abuse of drugs eighteen years ago, would very much prefer small and oft-repeated doses of castor-oil if necessary, abstinence from food until indicated, when hot milk, soft-boiled or raw eggs, some broth made scientifically as by the Atkinson oven, or a moderate quantity of steak or roasted beef, without condiment, are desirable. A few doses of diluted sulphuric acid, combined with a little opium, might assist matters; but nothing, in my judgment, can so naturally and harmlessly meet the chief source of danger, viz., the paralyzed innervation, as the judicious use of hot-air or water baths; favoring elimination, equalizing and stimulating the circulation, and resting and tranquillizing the patient. Dr. Baruch, of New York, has rewritten the old but never-to-be-displaced "Materia Medica," which every young graduate should possess as the coming system of therapeutics—2 vols. of 343 pages, devoted exclusively to "the uses of water in modern medicine." "His chapter on the 'Tub-bath' will be a revelation to many intelligent practitioners who thought that they were thoroughly acquainted with the subject before."

Dr. Billings, in his address on "Baltimore's Needs," before the Charity Organization Society (reported extensively in the daily papers of February 28th), spoke of the necessity for public wash- and bath-houses for the use of the poor, public abattoirs, etc. Dr. McShane's report, previously issued, modestly omits these specific and imperative needs, possibly because he foresaw that other requests, even when granted and provided for, undergo an indefinite stage of financial incubation before being hatched by a well-disposed ways and means committee. As water contamination is the most certain factor in the spread of cholera, so cleansing and refreshing of the individual externally, internally, and eternally by water is one of the most effective prophylactics; and, though not a believer in the "paternalism (?) of the Czar," I do think the municipal fathers owe to the great unwashed a free bath, even if they ask them to furnish the soap and towels. The change it would make in the morals of the community would a hundred times pay for the outlay. Some people would get a chance to see themselves as they had never done before. These baths should be erected convenient to the heart of the crowded communities, as is the case in New York.

That previous attempts to get them here have been futile is a public and private disgrace, and an unwashed stain upon our fair city's philanthropy.

The State must provide means of isolation and sequestration, render localities healthful and keep them so, purify the water-supply, forbid, effectively, overcrowding in districts and houses, and make conscienceless landlords pay dearly for their inhumanity. Official inspection of all food products seems indicated when an expert places the amount of money expended for food adulterants at many millions. Says Dr. Ernst, of Harvard: "The absolute quarantine idea is passing away, though a strict watch on vessels should be kept. To the poor should be secured a more healthy and abundant nourishment, proper shelter, and sufficient clothing. Public instruction of the nature of emergency lectures should be given by every government at the beginning of an epidemic. It should include directions for the general rules of conduct and hygiene, and some advice as to the administration of remedies until the doctor can be reached. Such instruction should also include and lay especial stress upon the necessity for immediate disinfection and destruction of all evacuations and of soiled clothing, and upon the importance of a pure water-supply. Crowds of poor people, oftentimes collected in single tenements, should be scattered." Here is plainly a cry from Macedonia which calls for organized church effort, for the gospel of health goes hand in hand with the gospel of love and peace. Smile if you please, but I offer this tribute of justice to the only religious body which has a slum sanitary corps, so far as I know; I mean the Salvation Army. Probably the Hebrews among their poor do equally meritorious Christian work.

Let the benevolent women of Baltimore open a New England kitchen, a half a dozen of them, and the midday lunchers among the working-classes will bless their memory. This is practical prohibition work and the greatest foe to the saloon curse. Our dietetic customs all want a modern overhauling. Ancient beef-tea has gone to the land of Urea. Professor Voit has broken "the staff of life" by feeding an exclusive bread diet to dogs and rats, and causing dropsy and anæmia. Oatmeal is decidedly too rough on American stomachs and cracked wheat not what it is cracked up to be. Baltimore grits, in my experience, is queen of them all. There is no healthier people than the Hebrews, and they are safe dietetic guides to follow. They are great believers in soups, and know how to make them, too. In this hurrying, nerve-exhausting land of ours, a well-made, nutritious soup is indispensable, more perhaps to the worker with brains exclusively than to the more rational worker with muscles and brains. Good soup is a *rara avis*. The Boston patrons tell the cooks in the New England kitchen that they can do more work on the things they buy there (for a minimum outlay) than after any other expenditure.

In conclusion, if you cannot be perfectly healthy, be as clean and healthy as you can. "By thoroughly hygienic lives, by eating wholesome food, drinking pure (boiled) water, keeping the skin clear by daily baths, changing and ventilating the clothing frequently, sleeping and living in well-ventilated rooms, we may place the system into fighting trim and bid defiance to the invader even if we cannot prevent his entrance into our midst" (*Dietetic Gazette*). Let the choleraphobiac remember 'that the actual swallowing of the cholera poison by men in good health and of good habits did not produce a serious type of the dreaded disease." Shall we restrict immigration? Yes, but only to the "devil's poor." Let God's poor and oppressed and even the "poor devils" of other countries have a chance to make men of themselves in this land of civil and religious liberty. Let the Russian Jew have this chance. He may not become a Rubenstein or a Paderewski (Polish), but he has latent character, possibilities which those who know his antecedents will confidently endorse.

After steamship companies have done their duty by the confiding emigrants whom they often herd and feed like cattle in transitu, freely asserting that they make up by the profits on the steerage what they lose on the overfed cabin passenger; when capital and labor understand their mutual interdependence; when race feeling is a stigma, sex discrimination a disgrace of justice, monopoly a crime, politics synonymous with statesmanship, and honesty the only policy, then the field of medicinal action will have been cleared and there will be nothing left to cure. This humble effort may seem to some a strange blending of things incongruous—religion, politics, and medicine.

Let no man put them asunder.

Speaking solely for myself, but voicing, I am sure, a deep undercurrent of thought and action which is aiming to simplify and cleanse society, there is a panacea for all the evils of the body politic, an unfailing specific for many ills that flesh is heir to, a natural, universal, and facile germicide—

'Tis Brotherhood!

Room 400 Equitable Building.

EARLY DIAGNOSIS AND TREATMENT OF POTT'S DISEASE OF THE SPINE.[1]

By GEORGE E. GORHAM, M.D.,

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In these days, when medical literature is replete with newly discovered truths, startling facts, and brilliant hypotheses gathered from the fields of study and observation in bacteriology, pathology, physiology, and hygiene; when the surgeon is astonishing us and gaining the admiration of the world by his bold entrance into the deepest recesses and most vital parts of the body, there to remove the offender, whatever it be, close his portal of entrance, and bid nature seal it, which she does speedily, leaving no trace except the cicatrix of primary union; it seems a dull subject for me to ask you to consider the hunchback.

"Pott's Disease: its Early Diagnosis and Early Mechanical Treatment," is the subject I shall try to present in this short paper for your discussion this evening; and to him who shall say, what does a general practitioner know about orthopædic surgery, I answer: I know of Pott's disease that which I hope you may never know; I know what it is to watch the sufferings of an own son, listen to his night cries, and picture to myself a suffering cripple turning to me in after-years and saying, "Father, where was medical science, that a slight bruise should have been allowed to deform me for life?" This knowledge forced upon me, has led me to seek more and to investigate the subject from a general practitioner's standpoint and to prepare this paper, hoping that the surgeons and orthopædists present may by their discussion bring prominently before the minds of general medical men, the great importance of an early diagnosis and proper treatment in the first stage of spondylitis.

According to the pathologists, spondylitis is a pathological condition commencing in the bodies of the vertebræ or inter-vertebral substance as a hyperæmic spot. As the disease advances the spot grows larger and opaque, while hyperæmia surrounds it. Later cheesy degeneration of its centre takes place, or both caseation and suppuration may result, producing bone abscess. Then follows, in the natural course of the disease, a long and varied list of pathological changes; deformity proportionate to the bone destroyed and the vertebræ involved, compression myelitis with resulting paralysis, abscess, pain, emaciation, etc. But it is not within the scope of this paper to speak of these. It is the early diagnosis and mechanical treatment which may prevent such dire results, that interest us to-night.

The cause of this morbid phenomenon is not yet definitely agreed upon. Percival Pott, who first clearly observed and wrote of it in 1771, considered it a constitutional disease, and I believe the idea has prevailed in the mind of the general profession from that day to this, viz.: that it was a local expression of struma or tuberculous diathesis. Tubercle bacilli are found in the diseased tissue, and it is therefore called tuberculous ostitis. That trauma is a frequent cause is freely admitted by all, and by some claimed to be the prime factor. Dr. Lewis A. Sayre says: "I have arrived at the conclusion, based upon an accurate and carefully recorded experience, that it is produced almost always, if not always, by some injury to bone or cartilage, and is hence traumatic in its origin."

Dr. Bradford says: "In short it may be assumed that the determining cause of caries of the spine is jar or superincumbent pressure, the influential cause that physical state which is incapable of resisting slight trauma."

Drs. Morton and Hunt, in their review of the subject published in Sajous's Annual for 1888, speaking of the constitutionalists and localists, state that the localists seem now in the ascendency.

Whatever the cause, whatever the nature of the inflammatory process, it is an ostitis which, as it advances, destroys the bodies of the vertebræ until they are crushed down by superincumbent weight, when the column pitches forward and the kyphosis is produced.

The importance of an early diagnosis can scarcely be over-estimated in a disease so insidious in its attack, and so far-reaching in its destructive work.

It is not an unimportant matter to entail years of suffering and death, or, what is worse, a long life of ill health and unsightly deformity upon one of our fellow-beings; yet this may be done by our neglect to diagnose and properly treat Pott's disease early in its course.

Gibney says: "An experience with deformities extending over a period of twenty years, prompts me to plead at every opportunity for an early diagnosis." He also states, "one would be amazed if he knew how many cases of Pott's disease come for treatment after the existence of deformity;" and again he emphatically states, "the recognition of the disease before any deformity arises is not difficult, provided the physician has accustomed himself to making a thorough diagnosis." This is a polite hint from an acknowledged leader in this department of medical science, but shorn of professional courtesy, it means that we general practitioners, by allowing Pott's disease to pass on to irremediable deformity without proper mechanical treatment, losing forever the opportunity when mechanical treatment might have prevented such deformity, are responsible for many of the suffering hunchbacks we see about us to-day.

Let us take, then, this hint, and review briefly the diagnostic points. The diagnosis after deformity is present can usually be made at sight. Scoliosis, rachitic spine, round shoulders, neurasthenic or hysterical spine, and fracture, are the only things with which it is liable to be confounded. The diagnosis before deformity is more difficult and far more important, but it can generally be made, and when made thus early I know of no condition which will give more gratifying results (considering the gravity of the trouble, of course) to him, who with care and skill, adopts and follows up efficient mechanical and hygienic treatment.

Wherever a diseased process is going on, nature is striving to overcome it; wherever there is deformity or loss of use, nature is trying to compensate for it. The contraction of the muscles with flexed thigh in hip-joint troubles is not the disease, but nature's effort to protect the joint by fixation. The hypertrophied and throbbing heart is not the disease, but nature's effort to compensate for an imperfect valve. So in spondylitis, long before kyphosis is present nature is making her efforts to protect the inflamed tissues. If, therefore, we observe her closely and interpret correctly, we shall be able to locate the disease and learn, too, a valuable lesson concerning treatment. As in the hip-joint, so in the vertebræ, nature, true to herself, contracts the muscles and produces rigidity of the portion of the spinal column involved. The child's efforts to further protect the diseased bone from jar and motion may also be observed, and to these are to be added night cries, spasmodic pains, aggravated by motion, in the abdomen, the chest, occiput, or wherever there is a terminal end of a nerve which has its origin near the seat of the disease. A grunting respiration and lack of endurance are commonly to be found. Lateral deviation of the column and elevated temperature are also common symptoms before the angular curvature is present. A child having any one of these symptoms mentioned, the cause of which is not definitely known, should be carefully and thoroughly examined and re-examined until, if possible, a positive diagnosis be made;

[1] Read before the Albany County Medical Society.

and if it cannot be made, the child should be confined upon its back until spondylitis at least can be excluded.

The rigid spine is to be detected by removing all clothing and observing closely the child while walking, standing, and bending to the floor. If spondylitis be present, the child will walk guardedly and carry the spine stiffly erect or bending backward, often placing the hands upon the hips, thus transmitting the weight of the body to the pelvis. While standing he will rest his hands upon some near object for the same purpose. In sitting he will relieve the inflamed tissue in the same manner by bearing his hands upon his chair. In bending to the floor, he will flex the legs and not the spine, or at least not the diseased portion. To further examine for rigidity of the column, the child should be laid prone upon a couch or table, and then, while the patient's legs are extended, the surgeon grasps the ankles and lifts the body. If Pott's disease be present in the dorsal or lumbar region, the muscles of the back will be so contracted that the whole back will come up like a stiff board. If in the cervical region, the muscles of the neck will be stiffened, causing a noticeable stiff neck and peculiar carriage of the head when the child stands. In bending the column backward by lifting, one must be familiar with the flexibility of the normal spine, and also know that the flexibility varies in different patients. The grunting respiration cannot well be overlooked, and Dr. Sayre advises placing the child across the lap and then separating the knees until the body of the child is extended, or until all pressure is relieved from the diseased bodies, when the child will often breathe deeply, giving, as it were, a sigh of relief.

The night cries are very significant. They are not the frightened cry of what is called night terrors, when the child awakens in a fright, but a sharp cry of pain, and with it an effort is made to get relief by changing the position, which will be done very guardedly.

The hip-joint and the spine should always be examined when these cries continue for any length of time. The abdominal, thoracic, and occipital pains should also excite suspicion, and if their cause is not known, that portion of the column near the origin of the nerve whose distal end is crying "I am in trouble," should be carefully examined for rigidity. Pain at the seat of disease is said to be seldom present.

Bartow, of Buffalo, was the first, I believe, to call special attention to lateral deviation of the spine as almost a constant early symptom of Pott's disease in the dorsal or lumbar region. Lovett, of Boston, after a very carefully conducted examination of many cases, confirms this statement. This lateral curvature is most readily detected by viewing the body from the front, and, like the rigidity, is caused by voluntary or spasmodic contraction of muscles. Lovett also found, after a long series of observations, that there was an evening exacerbation of temperature of from one to three degrees in acute Pott's disease, and this too without abscess formation.

A child with Pott's disease is a sick child, and it will be found on inquiry that it is not playing as much or as vigorously as usual, is not sleeping as soundly, and is irritable.

It will be seen then that, according to careful observers, the most significant signs of Pott's disease before angular curvature is present are: rigidity of the spine, neuralgic pains, lateral curvatures, high temperature, grunting respiration, impeded locomotion, peculiarity of gait and carriage, night cries, and a general ill condition.

With these points in mind, and remembering the pathological conditions which must exist before the angular deformity is produced, viz., inflammation, ulceration, and destruction of bone until the bodies crush down one into the other, the diagnosis in most cases is not difficult. To give the differential and regional diagnosis would extend this paper beyond the time allowed me.

I have spoken only of the early diagnosis, and according to the title of this paper, will speak only of the early mechanical treatment. Suppose we have, after a careful investigation, found it necessary to convey to an anxious mother the unwelcome intelligence that her child has Pott's disease, what shall we do? Consider it a constitutional disease, advise constitutional treatment, administer consolation, and wait to see if deformity results? There comes a time to every surgeon when, if he waits, a life is lost. There is a time when, if the oculist waits, he dooms a patient to a life of total darkness. The obstetrician may, by inaction, sacrifice the life of mother and child. The responsibility resting on the general practitioner with his case of Pott's disease is not less; his inactivity is attended with no less grave results. To allow a patient to go with a broken arm until deformity is unsightly, and then send him to a splint-maker, would be as sound treatment as to wait until deformity is present in Pott's disease, and then send the patient to the instrument-maker.

To the question, what shall we do? I answer: Explain fully to the mother the nature and course of the disease, and paint the picture dark. Then tell her that complete rest to the inflamed tissue for a sufficient length of time will, in all human probability, if faithfully carried out, allow nature to restore her child without deformity. Make her understand it. Gain her hearty co-operation, and then proceed to treatment.

Promising too much? No, sir. The favorable results obtained by proper fixation of the spine in cases already advanced to destruction of bone, deformity, and abscess, will warrant us in saying that, in the stage we are now considering, we may reasonably hope for a complete recovery without deformity. Good authority in orthopædic work will bear me out in this statement. I have seen it in my own practice. On this point allow me to quote Hilton, in his admirable work, "Rest and Pain." He says. "I trust I shall not be thought too sanguine when I assert it to be my firm conviction that if diseases of the spine were recognized sooner than they usually are (and I am confident they may be), most of the cases would be cured by properly applied rest." Bartow, of Buffalo, says: "Viewing the completeness of recovery which commonly follows efficient treatment in the early stages of Pott's disease, one is strongly inclined to regard the tuberculous process at this period somewhat as a benign matter. That is to say, more importance may be attached to the functional use of the affected vertebræ and the mechanical force which is thereby exerted upon the inflamed bone for promoting the extension of the disease than to its inherent tendency to invade new tissue." So far, then, as treatment is concerned, we have to deal with a traumatic inflammation of the spine.

"Rest to inflamed tissue is surgical law." Therefore, to provide rest and protection to the inflamed vertebræ in that manner which will least interfere with the comfort and well-being of the patient, is the mechanical problem presented for solution. Just in proportion to the caries of the bodies is the kyphosis, therefore, proportionate to our saving the bodies from the destructive ostitis, will be the prevention of the deformity. Pardon me if I here emphasize the fact that it is the carious bodies we are to treat, and not the angular deformity produced by the projection of a sound spinous process.

To secure rest to a diseased vertebra, we must relieve it of its duty of sustaining the column above and protect it from jar and motion. If in a column of bricks the central one is crumbling, and we wish to relieve it from superincumbent weight, there is no way to do it and preserve the relative position of the bricks equal to placing them on a horizontal plane. What is true of bricks is mechanically true of a spinal column. Therefore, if we place a child afflicted with spondylitis upon its back and fix it there with slight extension, we have complied with a mechanical law and done all, and more than can be done in any other way, to provide rest to the carious spine.

Whether this meets the second condition of the problem, in contributing most to the comfort and well being

of the patient, is a question yet undecided. It is held by most men that continued recumbency does not, and therefore, ambulatory apparatus and Taylor's brace, and Sayre's plaster jacket, or their modifications, representing the best mechanical genius of the age, are usually applied except in the very acute stage, or when from any cause the patient cannot stand.

The advantages of recumbency are readily seen. It is always at hand. It can be skilfully applied without the experience and expense necessary to properly apply ambulatory apparatus. It gives rest to the child at once, relieves as nothing else will all superincumbent weight. It insures the child against accident from falling, and against further traumatism to the diseased tissues. It prevents deformity in the cervical region as no other treatment will, and it is the only treatment which can be fairly claimed to produce recession of the angular deformity after it has occurred.

That recumbency is mechanically more nearly correct than any other treatment, admits of no discussion. Relieved of its objectionable features, confinement and lack of exercise, it fulfils every requirement for complete mechanical treatment of spondylitis. I have therefore adopted recumbency for the treatment of my cases, and tried to do what I could to overcome its objectionable features, and I have to show you the apparatus which, so far as I know, is novel in some of its construction and details.

. . . . . .

Case I.—E. B——, two years of age. I saw him in October, 1878. He had walked with difficulty during the summer, had been fretful, wakeful at night, and cried when lifted. His trouble was considered rheumatism, and for it he had been treated. On a careful examination I found rigidity of the spine, and a small knuckle in the middle dorsal. A Taylor brace was carefully fitted and the child kept in recumbency most of the time. He was given pure cod-liver oil and phosphate of lime. This treatment was continued for two years, gradually allowing the child to be on his feet. He made a complete recovery without deformity. He is now in the Boys' Academy, and was one of the successful competitors at the last military drill.

Case II.—M. B——, two years of age, whose mother had died of phthisis, was seen in April, 1890. She had never walked, and for six months was unable to sit. She was lying in her cradle with spine bent at an angle of forty-five degrees in the middle dorsal region. The greatest encouragement which had been offered was that she would live but a short time. A Taylor brace was fitted, and the child was kept in recumbency without fixation or extension for four months, when she was allowed to go about the room. In July last, a plaster jacket was applied, which she still wears, suffering no pain, and runs about at her play happily as any child. She is well nourished, and save from her deformity, which of course cannot be corrected, she seems well.

Case III.—T. G——, born December, 1888; family history good; fed artificially; walked at fifteen months, and was allowed by his nurse to run to and from the street car for two blocks, over a stone pavement, occasionally falling over the curb. He soon developed a limp and night cries. Hip-joint disease was recognized, and he was placed in an ordinary crib with extension to the leg. The extension was continued with more or less irregularity, I am sorry to say, for a year, when a sharp knuckle at the level of the first dorsal vertebra was noticed. He was kept recumbent for another year with extension to the leg and head, with the same irregularity in treatment, when in February, 1892, I brought the child to my own house, and began treatment by fixed recumbency, with extension and counter extension. The child at this time was emaciated; his temperature was 100° F. at night, and he had night sweats. The thigh was flexed and fixed by muscular contraction at an angle of forty-five degrees. There had been compression myelitis with paralysis, which had passed away, but had left marked contractions of the tendons and muscles of both legs. His sleep was disturbed by frequent spasms of pain in the hip, occasioning the hideous night cries, and whenever moved severe pain was induced. In this condition, I placed him in my improvised recumbency apparatus, which I will presently show you. His pains and night cries soon ceased; he gained in flesh, the temperature became natural or nearly so, and he has been happy ever since, in his fixed recumbency, without interruption. The hip-joint has quieted down; there are no more spasms; the leg lies nearly straight, the foot being elevated three inches. The spine is consolidating with no noticeable deformity, and the boy is well nourished, and he looks as well as the average boy of his age.

Case IV.—J. M——, five years of age, came to me in April, 1892. When three and a half years old, or eighteen months before I saw him, he fell and injured the spine in the lower cervical region. For a year he ran about, suffering much pain, with greatly disturbed sleep. A compressed myelitis followed, producing motor paralysis of the legs, which had existed from December, 1890, to April, 1891, when I first saw him. I placed him in fixed recumbency with extension to head, with immediate relief from pain, and he slept soundly the first night, for the first in over a year. He was given extract of malt with cod-liver oil and phosphate of lime. He slept well every night, was happy during the day, and gained rapidly in flesh. The paralysis improved in three months' time so that he could move the legs freely, and bear his weight on his feet. In October, he was taken from his bed and placed in a go-cart, extension to the head being continued, and allowed to go about the house. He is now about the house at play, going up and down stairs, with no support except a large collar to sustain the head.

Case V.—Baby B—— was brought to my office from fourteen miles out in the country, July 26, 1892. He had made the same journey frequently during the summer to get relief from constant worrying, sleeplessness, and crying. I suspected spondylitis at once from the characteristic grunting respiration. The marked rigidity of the spine and a slight knuckle in the upper dorsal region confirmed my suspicion. I directed the father, a poor farmer, to make a little frame of pine boards, two inches wide, set on edge, and cover the top with strong canvas; to place the child on the canvas with small sand bags at either side, and with broad bands to bind the child and sand bags to the frame. I ordered cod-liver oil, ten drops, three times a day, and tablet triturates of phosphate of lime. Not hearing again from the child, I wrote the following letter which will explain the result:

"Albany, N. Y., December 23, 1892.

"Dear Sir: Will you please write me within a day or two how the baby is, and just how you are managing with him? Do you keep him down thoroughly all the time? Also answer the questions on the paper I send.

"Hoping you are doing well with the boy, I am,

"Very truly yours,

"Geo. E. Gorham."

1. When did you first notice anything wrong with the child? About the first of March, 1892.
2. How old was he then? About six months old.
3. How did he act? He cried and worried.
4. How much did he cry? About all the time.
5. How much did he sleep at night? Not much of any.
6. How much in the day? Short naps.
7. When did I first see him? July 26th.
8. When did you first see the bunch on the back? Only a few days before you saw him first.
9. How much relief did he get from being put down, and how soon? He got relief immediately.
10. What did you think the baby weighed when I first saw him, on July 26th? I think about fifteen pounds.
11. What does he weigh to-day? Twenty-five pounds.
12. When was he born? September 11, 1891.

13. How much pain does he have now? Not much if any. He cries once in a while.

14. Does he grunt when he breathes now, as he did last summer? The grunting has disappeared. I will be in in a few days, as you wanted me to be in about Christmas. The child eats and sleeps well; he has grown over one inch since you have seen him last.

Yours truly,

R. B.

REPORT OF A CASE OF MYXŒDEMA.[1]

By W. GILMAN THOMPSON, M.D.,

NEW YORK.

The patient is L. S——, female, aged forty-four, single, born in the United States, by occupation a housekeeper. Her father died of apoplexy, her mother of heart disease, and a brother of phthisis. The patient's history is unimportant up to twelve years ago, when symptoms of the present disease first appeared. Menstruation has always been normal, and the menopause has not yet been reached. About twelve years ago, while living on Long Island, the patient suffered considerably from malarial fever, having repeated attacks during a period of two years. Shortly after the ague commenced she noticed that her face was becoming swollen, especially about the forehead and eyes. Soon she became weak, nervous, and very drowsy. The skin was dry and pale. Food distressed her, and she had unusual susceptibility to cold. Alopecia followed, and the patient observed some clumsiness in moving about, with great fatigue on physical exertion. These latter symptoms all developed within a period of three or four months, and have slowly increased in severity. Salivation has been occasionally present, and for a year or more the patient has been unable to sew or read for any length of time on account of excessive lachrymation, although vision is normal. There has also been occasionally partial deafness, and tinnitus aurium, attributed to taking cold. Recently palpitation has been a frequent and annoying symptom. Two years ago speech became somewhat slow and difficult, and the patient thinks that her memory has failed considerably. No depression of spirits. There has been recent slight swelling of the feet and legs, which have also often felt numb and cold. Slight dyspnœa, constipation, and anorexia have also been present.

Examination on admission to the Presbyterian Hospital, April 5, 1893: Patient fairly nourished, anæmic, skin everywhere dry, loose, and inelastic; desquamation universal, but most marked on the legs and chest, where the skin is peeling off in large flakes resembling those of scarlatina. Hair absent in axillæ, very scanty on pubes, and very thin, dry, and brittle over most of the scalp, especially anteriorly and toward the vertex. Slight œdema of both legs. Face swollen, having peculiar waxy, doughy appearance. Lips thick; naso-labial fold obliterated; eyebrows arched; nose flattened; tongue greatly swollen, to the extent of half an inch at the tip. Speech thick and hesitating. Moderate salivation. Gums swollen and bleed readily. Hearing and vision normal. Mind apathetic. No visceral lesions apparent. Heart sounds distant; no valvular murmurs. Patellar reflexes diminished. Gait slow and labored. No retardation of tactile sensation. Pulse, 104; respirations, 20; temperature, 97.8° F. in mouth. Blood: Hæmoglobin, seventy-five per cent; red disks, seventy-seven per cent. (on a basis of five million per cubic millimetre). The thyroid gland cannot be distinguished through the tissues of the neck.

Treatment.—After keeping the patient for four days under observation, without treatment, she was given daily doses of five minims of a glycerine extract of the sheep's thyroid gland, prepared for me through the kindness of Dr. George W. Crary. The temperature was then taken every two hours, and careful observations were made with reference to any reaction. As none followed, the quantity of extract given was increased by one minim with each dose, until a week ago the patient was taking twenty minims three times a day. The patient has now been under treatment for fifty days. During this time the temperature has fluctuated three degrees, ranging between 97° and 100° F., most of the time being subnormal. At first the daily fluctuations amounted to 2½° or 3° F., but of late they have been only 1° F. The hair has continued to fall out, but the extensive lamellar desquamation has ceased, and the skin in some situations, notably over the hands and arms, has become more elastic, softer, and much less dry. Ten days after the treatment was begun the swelling of the face, especially about the eyes, decidedly diminished, and the lips and tongue became slightly thinner. The patient's mental condition also improved considerably. The feeble circulation has not improved, but the patient sits up daily and moves about the ward. There has been a slight increase in the daily production of urea. Her family and several physicians who have seen her only at infrequent intervals, unite in declaring that there is a positive improvement both in activity of mind and in facial expression. Seen from day to day the change is less noticeable, but the photographs which I herewith present offer favorable testimony. The first was taken before treatment, and the second was taken three weeks after treatment was begun. Several times the extract has been given hypodermically in five-minim doses; but no reaction followed.

Analysis of the Blood.

		Per cent.		Per cent.
April 12th	Hæmoglobin,	75	Red disks,	77
May 13th	Hæmoglobin,	72	Red disks,	62
May 24th	Hæmoglobin.	67	Red disks,	70

Dr. C. A. Herter has kindly furnished me with the following analyses of the urine and saliva.

Series of Eight Analyses of Urine, each from a Twenty-four Hours' Specimen. Color Normal and Reaction Acid in Each.

Date. April	10	11	12	14	18	24	May 19.	23
Volume in c.c.	300	290	430	Extract begun. 420	590	560	1,045	925
Specific gravity	1,020½	1,014	1,016	" " 1,010	1,012	1,011	1,011½	1,013
Indican	very strong.	strong.	negative.	" "	strong.		strong.	trace.
Urea, grammes	7.775	5.014	8.267	" " 5.409	9.005	6.448	11.152	10.552
Urea, ratio	35.2	34.8	38.6	" " 42.4	40.2	40.8	43.2	
Uric acid, grammes	0.221	0.144	0.214	" " 0.127	0.224	0 158	0.258	
Preformed sulphate		0.369		" "				
Preformed sulphate, ratio		4.6		" "				
Combined sulphate		0.080		" "				
Total phosphate				" "				
Chloride (sodium)				" "				
Kreatinin, grammes	0.263			" "		0.632		
				" "		2.062		

Analysis of Saliva, April 10, 1893. Filtered to a Clear Solution.

	Parts per 1,000.		Parts per 1,000.
Water	991.41	Organic matter	5 16
Solids	8.59	Mucin	0.13
Soluble inorganic salts			3.43

Dr. George W. Crary has kindly given me the following notes in regard to the preparation of thyroid extract which he made for me:

"The strength of the extract represents twenty-four grains of gland-tissue to one drachm of glycerine. Strict surgical cleanliness is observed in all steps of the process; boric-acid solution being, however, the only antiseptic used

[1] Read before the Association of American Physicians, at Washington, May 31, 1893.

—heat sterilization being employed. The glycerine is Schering's, twice distilled, and is sterilized before being used. The glands are cut up separately, and those diseased are of course thrown out. After standing four days, the extract is ready. After two months it seems to lose something essential, and I do not now use any older than that."

The patient received no other medication than the extract of thyroid gland at any time.

Clinical Department.

A CASE OF ABSCESS OF THE LIVER—OPERATION—RECOVERY.

By WILLIAM W. GOLDEN, M.D.,

ELKINS, W. VA.

On March 4, 1893, I was called to see Mr. A. C. D——, who gave me the following history: On January 24, 1893, he was taken with a severe attack of diarrhœa, consequent on the ingestion of a few glasses of cider. He since then failed in all his efforts to re-establish a normal physiological condition of his bowels, which he previously always enjoyed, suffering most of the time with alternating diarrhœa and constipation, accompanied by annoying flatus. At the same time he noticed a gradual failing of his health, which he could not sufficiently account for by the mere intestinal disturbance. His appetite and gastric digestion continued within fairly normal limits. The increasing debility finally compelled him to keep his bed part of the time. On February 2d, during some careless exertion, he was suddenly taken with a sharp lancinating pain through the upper region of his abdomen, followed by a strong tonic spasm of his recti abdominalis, which "doubled him up," and held him in an almost immobilized condition for several days. By February 12th he felt almost entirely free from the pain, and the muscles had relaxed. By this improvement he was tempted to leave the bed, and made an attempt to stir about and attend to some housework. But on trying to lift up a heavy log to place it on the fire-grate, he felt as if something broke loose in his abdomen, in the region of his liver, imparting a distinct sensation of tearing. He was since then obliged to keep his bed all the time. A soreness, continually increasing in severity, developed over the hepatic region, extending also below it.

On February 25th he noticed a slight bulging of the epigastric region, close to the right ninth costal cartilage. His health was now more markedly failing. He had fever and occasional chills and sweats, also a hacking cough. Constipation became still more obstinate, and the tympanites was greatly annoying. On the day of my first visit I found the following signs and symptoms: A bulging of the epigastrium, about the size of an adult parietal bone, about one-third of it extending to the left of the median line and the rest to the right of it, reaching above and to the right the free border of the right ribs, and below to a point about two inches above the umbilicus, extending for a short distance into the right hypochondrium. At about the centre of the bulging the skin looked somewhat reddened and much stretched, but not adherent. Palpation revealed indistinct fluctuation, and showed that the visible limits of the bulging did not correspond to the limits of the underlying mass producing it, as it extended for about an inch more in all directions (save at the border of the ribs where this could not be determined for obvious reasons), and to a depth beyond the reach of the palpating fingers. The mass was immovable by manipulation, but moved up and down in the long axis of the body with the respiratory movements. The liver was enlarged and the heart was displaced upward. The pulse was weak and rapid (110) and irregular. He felt cold in the lower part of his body, and unusually hot in the upper. Oral temperature 103° F. Gastric disturbance was present, but not very marked. In spite of the free use of cathartics and copious enemata and enteroclysms no evacuation could be produced (the injected water being retained) unless the patient assumed an attitude approaching the knee-chest position. Emaciation was considerable.

I could find but one rational pathological explanation to all these clinical phenomena, viz.: That the intestinal derangement he suffered from at the very beginning of his illness resulted in the establishment of an ulcerative process. Some of the morbid products, loaded with pyogenic bacteria, were swept off into the return circulatory current through the portal vein to the liver, where they halted and excited an acute circumscribed suppurative hepatitis. It then extended to the surface, having the capsule of Glisson for one of its walls. By the careless exertion made on February 2d, the capsule gave way, and the escape of pus excited an acute peritonitis, which, thanks to the absolute rest provided by nature's inflexible splints—pain and muscular spasm—remained local, having become circumscribed by the formation of new tissue. The same had recurred on February 12th, under the heavy strain of lifting. The result was a mass of purulent matter contained within a cavity formed partly by the parenchyma of the liver, partly by dense connective tissue, and partly by the anterior abdominal wall and its lining peritoneum. The obstinate constipation and the circulatory disturbance in the lower half of the body were mainly due to pressure upon the intestines and abdominal aorta. Having thus formed the diagnosis of abscess of the liver, I explained to the patient the nature and probable termination of his affection and urged an operation. He hesitated at first, but after a few days more of suffering he consented. With the valuable assistance of my friend Dr. O. Hoffman, of Thomas, W. Va., I undertook the operation on March 11th. After thoroughly cleansing the field of operation Potain's aspirator was applied, but it was not till the largest needle was introduced that the contents began to flow. The fluid thus drawn off was creamy, yellow, largely mixed with blood, and showing a greenish tinge here and there. Its odor was horribly offensive, such as I have witnessed only in long-standing empyemas. As the patient was strongly prejudiced against anæsthesia, and as his general condition was also thought rather contraindicating it, this was omitted. Cocaine was then injected and an incision was made through the abdominal wall, about three inches in length, across the centre of the tumor, parallel with and at a distance of about one and one-half inch from the lower border of the right ribs. A broad stream of purulent and bloody matter kept on running for about half an hour under gentle pressure. The whole quantity that escaped was estimated at about four pints. The abscess cavity was then irrigated with bichloride, followed by a one per cent. solution of creoline. A probe about five inches long could not reach the bottom of the cavity, striking only a number of trabeculæ stretched across the cavity in different directions. The cavity was then loosely packed with iodoform gauze and a strictly antiseptic dressing was applied. The patient bore the operation comparatively well. His temperature rose about two degrees F. immediately after the operation, but soon came down to normal. All pressure symptoms quickly disappeared, and the marked relief felt had the best possible tonic effect on the patient. The dressing was changed on the third day, when about sixteen ounces more of purulent matter was washed away. The subsequent history of the case was entirely uneventful. The cavity kept on filling up rapidly, and he gained in strength and flesh under a nourishing and stimulating diet. On April 3d he left the bed, and on the 6th he was able to be transferred from his farm to the town of my residence, a distance of about thirty miles, partly by rail and partly by country road. When the cavity had filled up entirely I allowed the external wound to heal up. On April 22d I discharged him, cured.

Remarks.—Abscess of the liver, though not very rare, is yet by no means very common. Out of two hundred and fifty-one autopsies made at St. Luke's Hospital, New

York, there were only nine cases of hepatic abscess. It now enjoys a somewhat more liberal etiology, tropical dysentery being only one of its causes, though the most frequent one. There was a case at Bellevue Hospital, New York, which resulted from the penetration of a fish bone through the lower portion of the œsophagus into the liver. The symptoms are not always clear, but, when fully developed are unmistakable. The gastro-enteric disturbances may be the primary cause of the abscess or they may be the result of mechanical pressure by the abscess, or of deficient secretion of bile, or of both. In my case the gastric symptoms were not marked. In the treatment a free incision is imperative. Had I not done it my conscience would never be clear. Aspiration alone would have only delayed the evil day.

COMPLETE INVERSION OF THE UTERUS—TREATMENT BY ABDOMINAL SECTION.

By T. M. McINTOSH, M.D.,

THOMASVILLE, GA.

Mrs. J. W. B——, of Camilla, Ga., aged twenty-four, a rather pale, delicately formed, educated, and refined woman, of nervous temperament, was sent me by Dr. Cull, last March, with the history that in December, 1892, she was delivered of her second child. The labor was normal, except that after the expulsion of the head, the uterus ceased to contract and the child remained thus partially delivered for "fifteen minutes." There was then one violent expulsive contraction which brought both child and placenta together.

An examination was not made, as all seemed to be well. The recovery was slow, and the presence of a continuous bloody discharge led to an examination after the lapse of six weeks, when the inversion was found. There was no decided effort made to reduce the organ. The symptoms were dragging pains in the back and pelvis, and the continuous bloody discharge. The patient could walk about most of the time, though with discomfort. The bed and chair were most comfortable, and her health was growing more and more feeble.

On April 2d, the patient was chloroformed, and with competent assistants an attempt was made, for an hour and a half, to reduce by taxis, after the various recommended methods, with absolutely no progress. The cervix uteri was rigid and unyielding. The perfect futility of this effort was thought to eliminate any hope of reduction by elastic pressure or massage, and a repetition of taxis.

On April 13th, an incision two and a half inches long was made in the median line, the operator being between the legs of the patient, whose buttocks were well over the edge of the table, each foot resting on a small table behind the operator. One hand was carried into the vagina and the inverted uterus was raised and pushed through and out of the incision. The blades of an ordinary uterine dilator were then passed into the inverted cervix (the peritoneal side I mean), and the blades were dilated fully. This not being found sufficient, a Farabœuf bone forceps was passed in and the handles supported by an assistant. This dilatation was repeated from time to time during the progress of the replacement, as there was continual recontraction of the resilient cervix. This dilatation was aided at times by the fingers of myself or assistants, pressing downward at the same time on the counter-pressure of the hand in the vagina. The progress of replacement was slow. When the fundus had been pushed upward to just within the lips of the os externum, which would prevent lateral slipping of the fingers from the fundus, a piece of gauze about three inches long, folded several times, was doubled endways and grasped by a long, fenestrated, and toothed Péan forceps, at the doubled end, and the free ends were spread out laterally, thus forming a firm head, as it were, to the forceps.

This was carried into the vagina against the fundus, and the uterus was pushed upward as far as possible and fixed firmly in position, by pressing the lower end of the forceps backward against the coccyx, and the upper end forward against the pubic bone. My free hand, or that of an assistant, was then used in making pressure downward, laterally and rotary, by grasping the uterus fully with the palm or the fingers as dilators and tractors combined. With much fatigue to myself and assistants, the reduction was accomplished in an hour.

Hemorrhage, from a laceration of the peritoneum over the fundus, required a deep suture of fine silk to restrain.

The temperature on the afternoon of 12th (the day of operation) was 100.3° F; 13th, A.M., 99.3°; P.M., 100°; 14th, A.M., 99.3; P.M., 99 4°; 15th, A.M., 99.4°; P.M., 100°; 16th, A.M., 98°; P.M., 100°: 17th, A.M., 98°; P.M., 99 4°. From this date it was normal, and recovery followed without interruption. The text-books recount the theories as to the causes of inversion of the uterus. They record cases of its occurrence in the virgin uterus.

The treatment according to the books is reduction by taxis, and failing in this, amputation, some advising abdominal section. Unless the woman is beyond the child-bearing age, amputation should not be thought of. The aim of surgery is preservation, not mutilation. With sterilization (asepsis) the abdominal operation is but little, if any, more dangerous than amputation.

Cases of complete inversion are rather infrequent, and for this reason the report of this case may be of interest.

AN OPEN SAFETY-PIN SWALLOWED.

By DANIEL F. SULLIVAN, M.D.,

HARTFORD, CONN.

On June 6th I was called to a child, aged fifteen months, who was suffering keenly, and from its expression and gestures the trouble was located in the stomach. All symptoms pointing to functional or organic trouble were absent, and I prescribed, feeling certain that in a little time all trouble would disappear. For three days the paroxysms of pain continued with exacerbations, and but temporary relief given by treatment.

The parents thinking some grave disorder impending desired a consultation.

A diagnosis of teething was made at once by my learned frater medicinæ. For two weeks I was a most unwilling worshipper of that fetich "teething," when suddenly, one morning, after a good dose of equal parts of olive- and castor-oil had been given to the little patient, the mother noticed something protruding from its rectum, and found it to be a small silver safety-pin with bar open. Thus was cleared up the mystery of a long-lost silver pin, and the convenient theory of teething was sustained.

A UNIQUE CASE OF ANGIO-LIPOMA.[1]

By THOMAS H. BURCHARD, M.D.,

NEW YORK.

In March last Dr. —— asked me to examine a swelling he had discovered that day on his back. Upon examination a soft, uniform, semisolid tumor, the size of a Messina orange, was found in the left interscapular space, extending from the fourth to the last dorsal vertebra. The tumor was freely movable and not specially sensitive to manipulation. It not only presented unmistakable fluctuation, but pressure made upon it by the palm of the hand caused its complete disappearance beneath the body of the scapula. Upon removing the pressure the swelling returned. There was no history of recent swelling or traumatism. The diagnosis of cold abscess was made. The tumor was also examined by Dr. H. H. Hagar, and by Dr. L. H. Heneberger, U.S.N., and this diagnosis was confirmed by them.

[1] Reported at a meeting of the North Western Medical and Surgical Society, June 21, 1893.

A few drops of a four per cent. solution of cocaine was injected and the supposed abscess was incised. A drop or two of dark blood, but no pus, escaped. Introducing my finger into the wound a curious and complicated mass of varicose veins bound loosely together by a stroma of fatty tissue was found. The doctor was etherized and the incision enlarged. The tumor was composed almost entirely of enlarged veins, and to the eye resembled a classical angle-worm eel-bob. There was no hemorrhage to speak of, and after the usual antiseptic precautions the wound was closed by seven interrupted sutures. These were removed on the fifth and sixth days, primary union having been secured.

Owing to the curious and deceptive character of the tumor, it was sent to Professor Herman M. Biggs for microscopical examination. The following letter explains itself:

"Health Department, 301 Mott Street,
"New York, May 20, 1893.

"Dear Dr. Burchard: The report has been somewhat delayed because of the nature of the specimen. The tumor is a very peculiar one, unlike any I have ever seen before, but, I think is a benign growth and is to be classed as an angio-lipoma. It is composed entirely of extremely vascular adipose tissue The vessels are both abundant and large in size. . . . .

"Very sincerely,
"Herman M. Biggs."

At my request the doctor has furnished the following history of this curious growth. Twelve years ago he was thrown from a horse against granite steps, receiving the force of the fall on his left side behind the scapula, this also being the location of the tumor. Some ribs were supposed to be broken at this time, but after a few days in bed his back gave him no trouble for a number of years.

During the past five or six years he has had a great deal of sharp neuralgic pain in the front of the left chest, and the left shoulder has tired very easily. The discomfort would be increased by exercise. At first the neuralgic pain was only noticed on awakening, but latterly it would come on at any time and has been much more severe. Not infrequently the pain has been so severe as to waken the doctor from sleep and to keep him awake for hours. Latterly the breathing has become affected from the pain, so that severe dyspnœa would result. Two days before the operation the pain was so severe as to be agonizing. It was at this time the tumor was discovered. Never before had any local swelling or tenderness behind been noticed. Since the operation there has been an entire absence of all pain. Occasionally the shoulder tires somewhat easily.

Points of interest in the above case:

1. The long time that has elapsed between the original injury to the back and the discoverery of the tumor. Twelve years, I admit, is a long time to trace positive connection between the fall as a cause, and the tumor as the effect, of the injury then received. Still, the peculiar anatomical make up of the growth warrants this conclusion.

Undoubtedly the enlarged and complicated venous net-work that constitutes the bulk of the tumor began in dilated and congested capillaries, that went on enlarging year after year, until their present extraordinary size and condition were attained.

2. The severity of the pain and the fact that it was referred to the chest and not to the back. During the last year or two the pain at times has been excessive—the doctor says "agonizing." Its being felt in the chest is a striking illustration of the old law—that pain is experienced at the distribution, and not in the course, of the nerve.

3. The deceptive character of the tumor, presenting as it did well-marked fluctuation and imparting to the fingers the soft, elastic sensation characteristic of encysted fluid.

4. The entire disappearance of the tumor, apparently, under the scapula, when pressure was made upon it.

5. Its peculiar histological characteristics, as found by Dr. Biggs.

6. The entire disappearance of the pain after the removal of the tumor.

7 East Forty-eighth Street.

A CASE OF HYPOSPADIA, CRYPTORCHIDISM, AND ECTOPIA CORDIS.

By J. ALEXANDER MOORE, M.D.,
Helena, Mont.

I was recently consulted with regard to the construction, for purposes of convenience in urination, of a penile urethra, in the case of a child. The subject is ten and a half years of age, has never had any grave disorder and is well nourished and bright. On examination, the empty scrotum is almost perfectly divided by the raphé, and the urethra ends at about its middle. Scalding of the penis by the urine gave a practitioner an excuse for removing, by ligature, the greater part of the organ, which the mother says was about one inch in length and subject to erections. At present the stump does not project from the body more than three eighths of an inch. The testes cannot be discovered. The question of hermaphrodism having arisen, rectal touch with a sound in the bladder disclosed nothing foreign to the male, and the general form and appearance are those of a boy. I could promise no advantage to be gained by a plastic operation.

The normal heart, liver, and cæcum, were found on the right side, and the spleen and stomach on the left. The rule in dextro-cardia, or ectopia cordis, is, I believe, that there is likewise transposition of the abdominal viscera, and this is the first exception I have seen.

SILKWORM-GUT IN THE TISSUES FOR NEARLY THREE YEARS.

Dr. H. Speier, of Duluth, Minn., writes: "On July 22, 1890, I performed an operation for lacerated cervix, using silkworm gut for sutures. On June 22, 1893, I removed one of the sutures which had been overlooked and left for two years and eleven months. It gave no discomfort until quite recently, when the woman felt a sharp pricking produced by the ends, which were cut off quite close to the knot. The specimen removed is firm and hard, and differs in nowise from a fresh specimen."

A Libel on the Extra-Uterine Fœtus.—In discussing the question as to the best period for surgical intervention in cases of extra-uterine fœtation, it is generally assumed that the fœtus is, in the language of the theatre, "a person of no importance," partly by reason of the alleged greater claim to existence of the mother, and partly, also, it may be supposed, because such fœtuses have been authoritatively stated to be usually deformed. Mr. Lawson Tait, who has probably seen more of these unlucky little wights than any other living surgeon, enters a formal protest against this certificate of malformation, first, because, he says, it is not true, and secondly, because, even if true, it does not vitiate their claims to existence when this can be conceded without the manifest sacrifice of the maternal life. Fortunately, it seems possible to reconcile these conflicting interests, and instead of, as has but too frequently been the case, killing two birds with one stone, timely intervention may enable the surgeon to preserve the child and to protect the mother. The present tendency of skilled opinion is decidedly against the unwarrantable delay which over-cautious surgeons insist upon as a preliminary to operative interference; a delay which is the death-warrant of the fœtus, without, we are assured, any corresponding advantage to the mother.—*Medical Times and Hospital Gazette.*

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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INOCULATION FOR THE CURE OF CANCER AND SARCOMA.

CONSIDERABLE has been written regarding the value of inoculation of erysipelas for the cure of sarcoma and cancer, and some very striking instances of improvement or cure have been reported. The whole subject has been reviewed, and an important contribution from his own experience made, by Dr. William B. Coley (*American Journal of the Medical Sciences*, May, 1893). This surgeon gives details of ten cases of his own, and collects other cases to the number, altogether, of thirty-eight.

Of these 38 cases the erysipelas occurred accidentally in 23 cases, and was the result of inoculation in 15 cases; 17 cases were carcinoma, 17 cases were sarcoma, 4 either sarcoma or carcinoma.

The immediate and final results were as follows:

Of the 17 cases of carcinoma, 3 were permanently cured. In addition, 1 case of probable carcinoma (Hutchinson's) was well five years after the attack of erysipelas. Of the remaining 13, 10 showed improvement which, although temporary, undoubtedly added to the life of the patient in most cases. One case (Janike's) died, as a result of the erysipelas, on the fourth day.

As regards sarcoma, we find the curative action of the erysipelas even more marked. Of the 17 cases of sarcoma we find 7, or forty-one per cent., well and free from recurrence from one to seven years after the attack of erysipelas.

All of the cases except those of Dr. Coley were treated by injections of erysipelatous fluid. Dr. Coley used pure cultures of the streptococcus. Repeated injections were made, and it seems to be necessary to continue the inoculations in order to avoid recurrence. The theory that whatever good has resulted was due to the local reaction, is considered to be disproved by the fact that inoculations made at a distance from the tumor have been known to cause it to disappear (Spronck).

So far as the danger is concerned, it appears that among forty-four inoculations death occurred twice.

Dr. Coley states in a note that of late he has been using a preparation of the toxic principles of erysipelas in four cases of inoperable sarcoma. The injections have been made into the tumor itself, and repeated every forty-eight hours. The reaction has been almost identical in character with that produced by true erysipelas, though milder in degree, and it has always passed away within twenty-four to forty-eight hours. The temperature has never risen above 103½° F., and has usually dropped to normal the following day. He had also frequently made use of the toxic products of the bacillus prodigiosus in combination with the products of the erysipelas coccus, to intensify the action of the latter, and always with the desired effect. He concludes that, 1. The curative effect of erysipelas upon malignant tumors is an established fact. 2. The action upon sarcoma is more powerful than upon carcinoma in about the ratio of 3 to 1. 3. The treatment of inoperable malignant tumors by repeated inoculations of erysipelas is both practicable and not attended with great risk. 4. The curative action is systemic, and probably due chiefly to the toxic products of the streptococcus, which products may be isolated and used without producing erysipelas. 5. This method should not be employed indiscriminately until further experiments have proved its limitations.

Dr. Coley's paper will undoubtedly give a great impetus to the culture of streptococci, and we hope soon to see the question of their therapeutical value firmly settled.

ELECTRICAL EXECUTION AS A HIGH ART.

THE manner of the taking off of the convict Taylor at Auburn, on Friday, July 21st, adds another atrocity to electrical execution. Even in these days of newspaper sensationalism, the bristling superlatives of startling headlines are scarcely equal to the occasion. In fact, the horror of the thing staggers our faith in ordinary humanity, and stuns our appreciation of common decency. We are informed that after one thousand eight hundred and twenty volts were first switched into the body of the victim, his struggles were so violent that the death-chair was broken, and the partially bound body would have pitched forward, had not such an occurrence been prevented by the attendants. Then an attempt to renew the contact failed, and it was discovered that the armature had burned out. The sufferer was then taken from the chair and attempts made to kill him with morphine and chloroform. After an hour's dreadful and fruitless trial by these means, he was more regularly and judicially put to death by harnessing a borrowed electric light wire to the chair.

Of course, all these preliminaries required time, and demonstrated a fertility of resource and determination of purpose highly commendable in officers empowered to carry out the provisions of this new and most humane law.

It may possibly be claimed by the advocates of this improved thunderbolt method, that the victim was virtually killed by the first shock, just as was attempted in the case of Kemmler, who was likewise butchered at Auburn. Not even the ingeniously explanatory resources of the reflex phenomena can explain the necessity of chloroform and morphine for a full hour between shocks. And yet one of the medical witnesses dodges behind such an absurdity in the effort to prove that the execution was in the main a success. Another medical witness, in ignorant innocence of the business, almost verges on sarcasm by asserting that the breaking of the chair was considered a part of the judicial performance. Why the chair should have had three legs instead of four can possibly be explained on the score of economy to the State, certainly not on any other ground. What might have occurred in

case of a refusal of the electric light company to act, it is difficult to imagine. A very interesting legal question might obtain as to whether or not a victim could be judicially killed by chloroform or morphine when electricity was ordered. Happily, the arduous endeavors of the scientific experts to fulfil their repulsive mission left this question open for the possible repetition of a similar accident in a future case.

It is difficult to discover, in tendering the usual congratulations that obtain on similar occasions, who should be the proper recipients for them in the present instance. Perhaps the really deserving one should be the victim himself, who, after all the brutal bungling of that delectable band of operators, is now safely and surely dead.

MR. HART AND AMERICAN MEDICINE.

Mr. Ernest Hart has been among us bearing with him an observant eye and a receptive mind. He slipped through the East, and was made much of, as was proper, by our hospitable Western brethren. We should venture the suggestion that he had not seen quite all of American medicine, not having come in contact with the schools, hospitals, and medical men of Boston, Philadelphia, Baltimore, and New York, for there is something to be seen in these places. Yet he seems to have caught the spirit of the American situation very well, as will be seen by the extract from his letter published in another column. It is true that there is a certain lack of warmth between the active workers on our seaboard and those west of the Alleghanies. Many causes have contributed to this, but perhaps the most conspicuous was the strife stirred up by the question of the Code of Ethics. Yet the trouble was not, and is not, essentially connected with the Code, for Philadelphia and many other parts of the East warmly supported, the stand taken in behalf of this document. It was rather the gradual conviction that there was too much politics in the American Medical Association, and that busy and earnest men could not afford to waste time on personal issues, when their strongest ambition was to further medical science. It was with some such feeling that Philadelphia, a strong Code centre, became the leader in the movement to create a Congress of American physicians. We are glad to believe, however, that the medical profession of the country is becoming more and more harmonious, and already they show their willingness to work together on all important issues. We have faith in a great and united profession.

THE ARMY MEDICAL SERVICE.

We referred recently to the establishment, by an order of the Secretary of War, at the suggestion of Surgeon-General Sternberg, of an Army Medical School for the purpose of instructing approved candidates for admission to the Medical Corps of the Army in their duties as medical officers. The course of instruction in this school will be for four months, and will be given annually at the Army Medical Museum, in Washington, commencing on November 1st. The faculty will consist of four professors, and instruction will be given by them on the duties of medical officers in war and peace (including property responsibility, examination of recruits, certificates of disability, reports, rights and privileges, customs of service, etc.), on military surgery, military hygiene, and clinical and sanitary microscopy. After completing this course the medical officer will be assigned for some months as junior at a large military post, in order that he may become practically acquainted with the army regulations, the making of official reports, and other matters new to him, before he is thrown upon his own responsibility in some frontier post.

But even after this preliminary training the army medical officer cannot, or at least need not, vegetate, but every opportunity will be afforded him to keep abreast of the times in his professional acquirements. Books and instruments are liberally supplied, and he will also be given the chance to come in contact with the leading medical men in civil life, and to see what is actually being done by the most advanced workers in the large cities. Formerly it was the custom to assign for duty as attending surgeons in the larger cities the older officers, who might be regarded as entitled to a period of rest and a pleasant sojourn in social centres. But it is the intention of the Surgeon-General to utilize these assignments hereafter as a means of affording additional educational facilities to the medical officers, and to recommend to these posts surgeons who have not yet passed their examinations for promotion to a majority. These details will be made for one year only, instead of for several years as heretofore, in order that as many medical officers as possible may be enabled to avail themselves of the opportunities thus offered to become familiar with the practice of the leading physicians and surgeons in this country, and of attending medical lectures, meetings of medical societies, etc. At the end of this tour of duty medical officers will be required to make a detailed report to the Surgeon-General, showing how much of their time has been occupied by their official duties and to what extent they have availed themselves of the advantages offered for professional advancement.

All these changes are in the line of increasing to a marked degree the efficiency of the Medical Corps of the Army, and of rendering even more tempting than it has hitherto been an appointment to this corps. The position of an army surgeon is an honorable one; his life is not hard, as the lives of medical men are reckoned, his opportunities for study and for gaining distinction are great, he is provided for when sick and unable to work, and his pay is sure and increases steadily with his years of service.

There are at present five vacancies in the corps, and five more will occur within a year. First-class men are wanted to fill these vacancies, and it is evidently the intention of those in authority to make it worth while for such men to enter the service; and those who show a disposition to employ their leisure time in research work, relating to scientific medicine or hygiene, will receive due encouragement. As a further inducement to candidates, and to save them unnecessary expense, it has been decided that they may have a preliminary examination by a medical officer of the army stationed most conveniently for this purpose. This will enable those who would be rejected on account of physical defects, or whose preliminary education is unsatisfactory, to ascertain the fact without going to the expense of visiting a distant city for the examination, and will save them the humiliation of being known at home as rejected candidates. It will

also diminish the number of rejections by the Board. There has been a mistaken idea, due to the large number of rejections, that the examination is unreasonably severe; as a matter of fact, the examination is strict, but fair, and designed only to bring out as far as possible the practical knowledge of the candidate and to enable him to prove that he is a well-educated physician. The considerable number of rejections has been due to the fact that a large number of applicants have been men whose English education was defective, and who have appeared before the Board without having made any special preparation for the examination in professional branches.

The advantages of the service are undoubtedly very great for men who are willing to live under authority and to submit to the necessary discipline of military life. But the authority, while in a measure absolute, is seldom or never despotically exercised, and every regard is had, as far as may be compatible with the needs of the service, to the comfort and physical and mental well-being of the medical officer. There are few openings which offer greater opportunities to young men who have received a liberal medical education than does an appointment to the medical staff of the army under the present improved conditions of service.

News of the Week.

The Cartwright Prize of $500, established by the Alumni Association of the Medical Department of Columbia College (College of Physicians and Surgeons), New York, and open to universal competition, has been awarded to Dr. Ward A. Holden, of this city, for an essay entitled, "An Outline of the Embryology of the Eye."

A Lot of Bad Food.—The Board of Health of this city has, during the present year, destroyed 4,000,000 pounds of bad meat, fish, fruit, and vegetables. This shows what an enormous amount of putrefaction the human system craves and will in a measure withstand.

A Young Physician of this city seems to have a mania for getting inoculated. He went to Paris and was inoculated by Haffkine against the cholera. Recently he was inoculated, with much newspaper acclaim, with tubercle bacilli.

The International Medical Congress.—From Rome, under date the 17th ult., *The Lancet's* correspondent writes: "There can now be no doubt that in point of numbers alone, to say nothing of the importance of the monographs which were announced in my last communication as being expected from such *dii majorum gentium* of medicine as Virchow, Charcot, and Nothnagel, the coming Congress will be superior to the most frequented of its ten predecessors. In the first place, take Italy herself. There are about 20,000 possessors of medical diplomas in the peninsula, and of these it is safe to assume that no fewer than one-fourth will make an appearance at the Sections. To these 5,000 Italian medical men may safely be added the 3,000 practitioners and teachers of other nationalities who are already pledged to come, to say nothing of the fact that 'adesioni' to the number of 3,000 more are all but committed to be present. Allowing for abstentions and 'false starts' due to unforeseen causes, which affect no profession more than the medical, we may deduct 1,000 from the 11,000 thus compiled, and the balance of 10,000 'Congressisti' remains—a total exceeding by more than 4,000 the attendance at the Berlin Congress in 1890. It is, I find, from Germany that the majority of the foreign participants at the sittings will come. Certainly there is nothing of that international jealousy between Italy and the two other members of the Triple Alliance that caused the French representatives to be 'conspicuous by their absence' at the Berlin Congress. America also, both from her northern and southern divisions, will send many delegates—the physicians and surgeons of the United States especially."

A cable despatch from Rome, dated August 2d, reports that the Congress has been postponed until April next by reason of the prevalence of cholera.

Dr. Clark Gapen, of Chicago, has been appointed Medical Superintendent of the Illinois Insane Asylum at Kankakee, *vice* Dr. S. V. Clevenger, resigned. Dr. Clevenger was appointed a short time ago to succeed Dr. Dewey, who was removed for political reasons.

Opinions Concerning the Proposed National Bureau of Health.—Regarding this the *Weekly Medical Review* says: "The practical results so far obtained by prompt hygienic measures to prevent the spread of epidemics, as well as the advances made in the allied sciences, all point to the advisability of founding such a department, which would form the head or directing centre of all the State boards, and the results that could probably be obtained thereby would certainly be far-reaching and would contribute in no small degree to the perfection of civilization."

The Dietetic and Hygienic Gazette says: "A sanitary department would be the representative of the medical conscience of the nation; it would enlighten the people in all that relates to salubrity; as the head it would unite and profit by the labors of the State Sanitary Board, thus forming the centre or focus from whence the powerful action of the government would spread its benefits throughout the land."

On the other hand, the president of the New York City Board of Health and Dr. Cyrus Edson, Health Commissioner, have expressed their disapproval of the measure.

"Came Down To Be an American Doctor." — Dr. George Fischer, of Rochester, N. Y., a native of Germany, committed suicide on July 26th by taking chloral. Before taking the poison he made out his death certificate and left the following note:

"George A. Fischer, born at Hanover, Jan. 27, '48; graduated from Han Lyceum. Volunteered in '66 in Hanover Horse Guards; made officer June 27, after the battle of Sangensalka Served in the same capacity in 56 Westfalven, war of '70. Came to the United States in '73. Lost caste and came down to be an American doctor. Died according to certificate to be found in desk. With kind regards, Yankees,

"G. Fischer, No. 31 heaven, front parlor."

We do not find his name in the list of regular physicians of Rochester.

The State Board of Health.—The State Board of Health met at Albany, July 27th, and organized by the election of Dr. Florence O'Donohue, of Syracuse, as president. The Board expressed its appreciation of the work of the retiring president, the Hon. Thomas Newbold, of New York City, whose resignation as a member

of the Board has been in the hands of Governor Flower. The report of the secretary on his examination of the condensed milk factories at Brewster's, Putnam County, and at Purdy's Station, Westchester County, with reference to discharges therefrom into the east branch of the Croton River, recommends that the factories be not disturbed, providing proper steps are taken to treat the waste before it is discharged into the Croton water-supply. The report was adopted, and Secretary Balch will consult with Commissioner Dailey, of the New York Department of Public Works, with a view of remedying these dangers to public health.

Transplantation of Cancer-tissue.—Dr. Wenzel Kopfstein, of Prague, reports the successful implantation of cancerous tissue in the brain of a rabbit.

The Empress of Germany has written a testimonial in favor of a baby food.

Another Hospital for New York.—The erection of Grace Hospital will begin about October 1st. It will consist of a hospital proper and three supplementary buildings, called the House of Simeon, for old men; the House of Anna, for old women, and the House of the Holy Child, for children.

The Academy of Medicine for London.—A cable despatch to *The Sun* says: "A project is on foot for establishing a great academy of medicine in London by the amalgamation of the Royal College of Physicians, the Royal College of Surgeons, and other medical societies, but it is not probable that it will succeed. Each society suspects the others of the design to kill it, and so strong is the rivalry and jealousy among these grave and learned bodies that it has taken a month's cautious diplomacy to get together a small committee to consider the subject of the union."

The Progress of the Cholera.—Dr. W. A. Wheeler, chief of the Ellis Island medical staff, who returned recently from a three months' inspection of European ports, has sent the following letter to Immigration Commissioner Senner: "In reply to your letter of this date, asking my opinion as to the probability of an epidemic of cholera appearing in the ports whence immigration usually comes to us, I have to state that the outlook I consider to be most favorable at all except Mediterranean ports. At Hamburg, whence we get a large number of people, and which was, as you remember, visited by cholera last year, there has as yet been no recurrence of the disease, which it was greatly feared there would be. The city authorities have done and are still doing everything in their power to prevent its introduction from abroad, and to suppress it should it appear. At an enormous expense all water in the city now is filtered and purified. As the weeks roll by the chance of escaping the disease improves, so far as the northern ports are concerned. With regard to the Mediterranean ports, it may be said that sporadic cases of cholera appear in Marseilles and Naples almost every year, and the presence in those cities of a few cases does not by any means indicate that an epidemic will follow. Since the last epidemic at Naples the sanitary condition of the city has been greatly improved. First, by the introduction of water from a mountain lake situated fifty miles in the interior, the water being of great purity and brought underground to Naples. An active municipality is also alive to the dangers to the commerce of Naples in the event of an epidemic of cholera, and will use every effort to suppress the disease should it appear. You will therefore see that I am inclined to be very hopeful regarding any serious outbreak of cholera in foreign ports this season, and do not anticipate any marked diminution of immigration from that cause."

Unfortunately, the latest reports are not of such a nature as to justify fully Dr. Wheeler's hopeful view. The outbreak of the disease at Naples is much more serious than the authorities in that city have tried to make it appear. The Government suppresses telegrams concerning the epidemic, and the newspapers make no mention of the prevalence of the disease in the city. Nevertheless, a despatch from London, dated July 31st, says that "from July 20th to July 28th there were 292 cholera cases registered in Naples, and 157 deaths. The daily average was 37 cases and 17 deaths. On July 22d, 45 fresh cases and 24 deaths were reported. The number of cases and deaths has declined since then." In Russia also the cholera is by no means extinct. Official returns made at the end of July show a marked increase of the disease in various parts of the empire. The figures show that from July 9th to July 22d there were in the Government of Podolia 1,165 cases and 350 deaths, as against 499 cases and 122 deaths during the week preceding. In the Government of Orel, from July 16th to July 22d, there were 234 cases and 91 deaths, as against 148 cases and 52 deaths during the previous week. In the Government of Toola there were 77 cases and 19 deaths from July 16th to July 22d. In the preceding week there were only 31 cases and 8 deaths. In Moscow, from July 16th to July 22d, there were 72 cases and 21 deaths. The epidemic exists, though in less severe form, in the Governments of Viatka, Kazan, Riazan, Oofa, and Simbeersk. The State Department at Washington has received a cable despatch from the United States Consul at Smyrna, stating that cholera exists in that port. The outbreak of the disease in this important centre of Mediterranean trade is regarded as of much significance. Smyrna is a port of Asiatic Turkey. Its trade is principally with places on the Mediterranean. The condition of affairs in the province of Corunna, Spain, where a number of cases of suspicious sickness were reported, is serious. It has transpired that forty persons have been attacked with a choleraic disease within the last few days. Of the persons attacked twelve have died. It is believed that the disease is Asiatic cholera, although there is no official notification to that effect. Cholera prevails also at Alessandria, in Italy. One case was reported in Hamburg on July 27th. The patient was a workingman, who was seized with cholera in the street, and was removed to the hospital.

The Water-supply not Appreciated.—In the slums of Chicago there are sixteen thousand residents and only four bath-tubs, two of which are disconnected.

Mississippi Valley Medical Association.—The nineteenth annual meeting of the Mississippi Valley Medical Association will take place in Indianapolis, Wednesday, Thursday, and Friday, October 4, 5, and 6, 1893. A general session will be held each morning, and the afternoons will be devoted to section work. There will be three Sections at this meeting, viz.: one on General

Medicine, one on General Surgery, and one on Obstetrics and Gynecology, the last mentioned having been added since the last meeting. Frederick C. Woodburn, No. 399 College Avenue, Indianapolis, is secretary.

Died at the Age of One Hundred and Thirty Years.—Peter Arreola, who recently died aged one hundred and thirty, at Tarimore, Mexico, was probably the oldest man in North America. He left 220 living descendants, many of whom are prominent in Mexican affairs.—*St. Louis Courier of Medicine.*

Stoechiology.—There are a great many ways of curing consumption, but the "Stoechiological Method" has the advantage in respect to its nomenclature, at least. So far as we can find, all there is to stoechiology is hypophosphites, a class of drugs which some people think do good in some inscrutable way.

Professor Christian Fenger, formerly professor of surgery at the College of Physicians and Surgeons, has been elected to, and has accepted, a chair of surgery and clinical surgery at the Northwestern University Medical School.

The Kansas Way.—The following appears at the foot of a bill-head of a Kansas physician. It is unique, original, and pointed, and we presume effective: "A prompt settlement of this bill is requested. If bills are paid monthly, a discount of ten per cent. is given. Bills not paid promptly will be passed to my attorney for collection. If you pay your physician promptly he will attend you promptly, night or day, rain or shine, while your slow neighbor suffers and waits, as he made the doctor wait, and while he is waiting the angels gather him in." —*Kansas Medical Journal.*

A Doctor in Pine Bluff, Ark., who is hardly twenty-one years of age, has done eleven laparotomies, all successful. This proves that the doctor is a very enterprising man; but what can be the matter with the Pine Bluff ovary?

Dr. S. C. Ayres has been appointed Professor of Ophthalmology, and Dr. J. C. Culbertson Professor of the Principles and Practice of Medicine, in the Cincinnati College of Medicine and Surgery.

The First Symphyseotomy on the Pacific coast was recently performed, successfully, by Dr. H. R. Holmes, of Portland, Ore. Up to June 5th, this operation had been done twenty times in the United States, and twice in Canada.

Fracture of the Cervical Spine.—There is at present in the Harlem Hospital a young man, twenty-two years of age, who is living with a broken neck, and whose prospects for continuing to live are excellent. He was struck by the arm of a windlass, the blow rendering him insensible for a time, and an examination proved that there was a fracture of the fifth cervical vertebræ. Just now the head is supported by a plaster-of-Paris dressing, but before leaving the hospital he will be provided with a permanent apparatus for the purpose. There is a second case of broken neck in this city, at one of the Dime Museums. The patient is making a quiet and comfortable living by simply exhibiting his splint and dropping his head on his trunk six times a day. With this man the broken neck solves a very important economic problem.

A Bequest to a Philadelphia Hospital.—The German Hospital of Philadelphia receives a gift of one hundred thousand dollars by the will of the late A. J. Drexel.

Some of our Philadelphia exchanges have adopted the practice of leaving off the terminal syllable "al" in words like physiological, biological, pathological, etc. The reader, before he gets through an article thus scientifically abbreviated, feels as though he had the hiccough, or, as one might say, very singultic.

Carbonated Waters.—A great many people drink carbonated waters and believe that they thereby both serve their health and please their palate. It will be a shock to them to learn that microbes can live with CO_2, and that saprophytes have been found in water of world-wide reputation for its sparkling character. Not that any very serious-minded or specifically malignant organisms exist in these pleasantly potable media, but still carbonated waters may contain microbes.

Acute Rheumatic Arthritis. — Dr. Sahli, in the *Deutsches Archiv für Innere Medicin* for July, discusses this disease in an interesting paper. He considers that it is probably an infectious disease, and in this connection he remarks upon its acute febrile course and the difficulty of diagnosis between it and septic or pyæmic affections of the joints or even osteo-myelitis, and also comments on the frequent detection of staphylococcus in the vegetations in cases of post-rheumatic endocarditis (Birch-Hirschfeld, Mantel, and others). He then describes a case of rheumatic fever in a girl of sixteen, being the second attack, which ended fatally, and how after death a yellow staphylococcus was found in the endocardial excrescences, synovial membrane, pericardium, pleura, swollen bronchial glands, and in the blood of the left ventricle. Dr. Sahli has in several other cases cultivated a similar staphylococcus from fluid taken during life from inflamed joints and also from the blood of rheumatic patients.—*Lancet.*

Secret Remedies for Diphtheria.—Dr. Aronson's refusal to communicate the method of preparing the extract from serum by which he hopes to be able to cure diphtheria was the occasion of some discussion at the meeting of the Berliner Medicinische Gesellschaft on June 14th. The Society did not enter upon any consideration of the merits of the preparation, and the President, Professor Virchow, repeated his previous declaration that, had he been aware of the object of the paper, he would not have allowed it to be read.—*Lancet.*

A Novel Mode of Electrical Treatment.—M. d'Arsonval has proposed to the Académie des Sciences a new plan of treating patients by electricity. The subject is enclosed in a large coil of wire through which alternating currents are passed, and the patient's body thus becomes the seat of alternating induced currents which correspond in frequency with those which circulate in the coil. When rapidly alternating disruptive discharges are passed through the coil, it is possible to demonstrate the presence of the induced currents in the patient by placing an incandescent lamp in circuit between his hands, as it is brought to incandescence, though the patient feels nothing. The influence of the treatment upon the processes of nutrition are considerable, the absorption of oxygen and the elimination of carbonic acid gas being largely increased.

Reviews and Notices of Books.

Créosote et Tuberculose; Revue Générale; Traitement de la Tuberculose Pulmonaire par la Créosote administrée par Voie Rectale. Par le Dr. Henri Audeond, Médecin Diplômé de la Confédération Suisse; Ancien Assistant d'Anatomie Normale; Ancien Médecin-Assistant au Dispensaire des Enfants Malades; Assistant à la Clinique Médicale de l'Université; Médecin Interne à l'Hôpital Cantonal. Genève: J Studer. 1893.

This is a very carefully prepared review of the question of the employment of creosote in the treatment of tuberculosis, and especially of the method of administrating the drug by the rectum. The first part is devoted to a general review of the varying fortunes of creosote in this respect during the past sixty years, including also a chapter on the use of guaiacol. In the second part the writer treats at some length of the rectal administration of the remedy in pulmonary tuberculosis. The conclusions of the author are that creosote is a valuable remedy in the treatment of tuberculosis although it is not a specific, and that the rectal method is the preferable way of administration. There is a valuable and quite complete biographical list of journal articles bearing upon the subject.

Traitement Chirurgical des Affections Inflammatoires et Néoplastiques de l'Uterus et de ses Annexes. Par E. Doyen (de Reims), Professeur Suppléant à l'École de Médecine; Chirurgien Suppléant des Hôpitaux. Paris: Bureaux des Archives Provinciales de Chirurgie. 1893.

This is an exhaustive review of the treatment of inflammatory diseases of the uterus and its adnexa, based upon the statistics of three hundred and twenty-four operations. The author also describes two hitherto unpublished methods of abdominal and vaginal hysterectomy devised by himself. The work is illustrated by forty-seven woodcuts.

System of Diseases of the Ear, Nose, and Throat. In two Volumes. Edited by Charles H. Burnett, A.M., M.D., Emeritus Professor of Otology in the Philadelphia Polyclinic, etc. Philadelphia: J. B. Lippincott Co. 1893.

Volume I. treats of diseases of the ear, nose, and naso-pharynx. It consists of 789 pages, printed in good-sized, legible type, on paper that is not trying to the eye, and is well-bound in a volume of convenient size. The pages are embellished by numerous illustrations, consisting of twenty-four plates and two hundred and thirty-six cuts, distributed throughout the volume in a manner to more clearly elucidate the text. The avowed purpose of the publication is "to place before the profession a practical work on the diagnosis and treatment of diseases of the ear, nose, and naso-pharynx," and "the authors have aimed to give practical conclusions arrived at by other investigators and by themselves rather than to discuss theories." There are twenty-three exhaustive articles in volume I., contributed by as many authors. These, beginning with the articles on anatomy, are arranged in logical sequence, in a manner to form a complete systematic treatise. The subject-matter is divided into two parts: Part I. treats of the ear; Part II., of the nose and naso-pharynx. Among those who have contributed to this volume we find the names of Drs. Edward B. Dench, New York; Robert Barclay, St. Louis; Gorham Bacon, New York; Charles H. Burnett, Philadelphia; Clarence J. Blake, Boston; Charles A. Oliver, Philadelphia; Clinton Wagner, New York; Francke H. Bosworth, New York; Carl Seiler, Philadelphia; George W. Major, Montreal, Canada. These names are sufficient guarantee of the excellence of the articles.

The plan pursued by the editor for the construction of the "System" has much to commend it. It embodies the work of specialists in the particular branch of their specialty, to which they have given the greatest attention, as a rule, and must necessarily be of greater excellency than it could be had it been the work of one author. The work is essentially one for the profession. For the practitioner, general or special, it is a valuable addition to the literature on the subjects treated of. The publication, certainly, abundantly fulfils the avowed purpose of its projector.

Manual of Chemistry. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A Text-book Specially Adapted for Students of Medicine and Pharmacy. By W. Simon, Ph.D., M.D., Professor of Chemistry and Toxicology in the College of Physicians and Surgeons; Professor of Chemistry and Analytical Chemistry in the Maryland College of Pharmacy, Baltimore, Md. Fourth Edition. Philadelphia: Lee Brothers & Co. 1893.

It is an evidence of the appreciation with which this excellent work has been received that it has already run through three editions, the third having been exhausted within a year. In preparing this fourth edition, Professor Simon says that he has improved the opportunity afforded him for a thorough revision of the matter contained in it, and has brought the work up to date by incorporating in it all the additions made necessary by recent advances in chemical science. The work is divided into seven parts, the first treating of the fundamental properties of matter, the second of the principles of chemistry, and the third and fourth of the non-metallic and metallic elements and their compounds. The fifth part deals with analytical chemistry and contains full directions for the student engaged in laboratory work. In the sixth part the difficult subject of the carbon compounds is put before the reader in a remarkably clear and comprehensible form, and the concluding chapter is devoted to a consideration of physiological chemistry. The book is illustrated by woodcuts and by seven colored plates, representing a large number of chemical reactions.

On the Chemistry and Therapeutics of Uric Acid, Gravel, and Gout. Being the Croonian Lectures for 1892. Delivered before the Royal College of Physicians of London. With Additions. By Sir William Roberts, M.D., F.R.S. London: Smith, Elder & Co. 1892.

This handy little book of some one hundred and thirty pages contains much more that is of solid practical worth than many a bulky volume three and four times its size. It is the work of a master-hand who is thoroughly acquainted with his subject and who possesses the happy faculty, none too common, of being able to impart his knowledge to his readers. No one can rise from a careful reading of these lectures without feeling that he has acquired clearer perceptions of the complex subject of the chemistry of uric acid and the urates, and has learned some facts that will be of practical utility to him in his management of these trying cases of gout and gravel. The four lectures deal respectively with the chemistry of uric acid and the urates and the comparative physiology of uric acid, with the chemistry and prophylatic treatment of uric-acid gravel, with the chemistry of uratic precipitation in gout, and with the bearings of this on the therapeutics of gout. The index is rather brief, but in a work of this nature, which should be read through and studied from cover to cover, a very complete index is perhaps not necessary.

Some Facts About Iron in Chlorosis.—Dr. Ralph Stockman, as a result of a number of experiments, concludes that organic iron compounds are not nearly so good as inorganic. He got poor results from Kobert's hæmol and hæmogallol; he found that manganese was of no use, nor was hydrochloric acid.

Society Reports.

AMERICAN OPHTHALMOLOGICAL SOCIETY.

Twenty-ninth Annual Meeting, held July 19th and 20th, at Fort Griswold House, New London, Conn.

FIRST DAY, WEDNESDAY, JULY 19TH—MORNING SESSION.

THE Society was called to order by the Vice-President, Dr. George C. Harlan, of Philadelphia.

The Relation of the Patellar Tendon Reflex to some of the Ocular Reflexes found in General Paralysis of the Insane.—A paper with this title was read by DR. CHARLES A. OLIVER, of Philadelphia.

The following propositions were offered:

1. In some of the cases in the second stage of the disease, especially where the patellar tendon reflexes were unequally exaggerated, there appeared to be an irregular and unequal spastic enervation of the two irides, causing irregularities in pin-point pupil forms.

2. In a few cases, especially in the third stage of the disorder, where the patellar tendon reflexes were unequally diminished, the pupil-size, though small, and its shape, though somewhat irregular, seemed to be but little acted upon by any powerful mydriatic.

3. In many cases, especially in comparatively young subjects, in the third stage of the disease, where the patellar-tendon reflexes were unequally diminished, there appeared to be an unequal paralytic enervation of the two irides; the pupillary dilatation manifesting itself at times, though not as a rule, in the eye with the greater amount of objective optic-head degeneration and retinal change.

4. In a few cases, especially in men beyond middle life, in the third stage of the disorder, where the patellar reflexes were markedly diminished and where the ataxias were quite pronounced, there were marked temporary asymmetries of pupillary form, one often being quite small and irregular for several examinations, while its fellow was large and ovoid, or oval.

5. In quite a number of cases, especially in the advanced stages of the disease (although seen in a number of cases in their earliest stages), where the patellar-tendon reflexes were unequally exaggerated or diminished, there was a failure of the irides to respond to even major degrees of light stimulus; this being true not only for those subjects exhibiting a true spastic myosis, but more especially shown in those instances where, with partial dilatation of the pupil, mydriatics failed to act.

6. In many instances, especially in the older cases, where the patellar-tendon reflexes were, as a rule, unequally diminished, or even lost, there was not only failure of iris response to the strongest light stimulus carefully thrown upon the retina, but where obtainable the irides seemed to fail to react to the various coarse and rough subjective and objective procedures necessary to be used in order to evolve both separated and associated efforts for accommodation and associated efforts for convergence.

7. In some instances, where ciliary muscle innervation could be satisfactorily obtained, both the spastic excitation and the paralytic enervation, at times found by subjective reading tests and objective study with the retinoscope, seemed to be in direct ratio with the patellar-tendon reflexes as the iridic changes.

8. In quite a number of cases where there was marked inequality of the pupils, with more or less want of reaction of the irides to light stimulus, the patellar-tendon reflex on the side of the larger pupil seemed to be the one the more greatly diminished.

9. In a number of instances, especially during the very earliest stages of the disease, where the patellar-tendon reflexes were beginning to lessen to unequal degrees, there often appeared momentary secondary ataxic dilatation of the pupil during exposure to strong light stimulation.

10. In many cases, especially during the second stage of the disorder, when the patellar-tendon reflexes began to become irregular and inconstant, pupillary inequalities, as expressive of unequal iris innervation and action, became more and more constant.

Clinical History of a Case of Spindle-celled Sarcoma of the Choroid, with a Study of the Microscopic Condition of the Growth.—DR. OLIVER, also reported the following case:

The patient, a man thirty-four years of age, consulted the writer on account of trouble with the left eye. Five years previously he suddenly noticed that objects situated to the right became dimmed when he attempted to look at them with the left eye. This gradually and painlessly extended over the whole field of vision, until in a little more than three years' time, the eye became blind.

In June, 1890, the tumor of the choroid was discovered by Dr. J. H. Thompson, of Kansas City. There was a history of syphilis, but treatment had no effect upon the growth, and a diagnosis of sarcoma was made and operation urged, but not accepted.

When seen by the writer, in June, 1892, a large vascular growth was seen in the upper part of the globe. Immediate enucleation was advised and accepted. The operation was done the following day. The patient has recently been seen and is perfectly well, with no evidence of return.

Microscopical examination showed the growth to be a spindle-celled sarcoma. Sections and photographs were presented.

Sarcoma of the Choroid.—DR. EMIL GRUENING, of New York, reported the case of a patient, a woman, aged thirty, who was seen April 17th, on account of diminution of sight in the right eye. The ophthalmoscope showed the retina in the macular region pushed forward. This projection was about four discs in diameter. This had given rise to no symptoms with the exception of a scotoma. Sarcoma was diagnosed and the eye was removed. Examination showed the growth to be a spindle-celled sarcoma.

Sarcoma of the Eyelid.—Dr. Gruening then read a report of a case of this affection which he said was exceedingly rare, the case reported being the only one seen by the author. The patient was a young man twenty-three years of age. He came under observation January 1, 1893. Five years previously he had noticed a small swelling on the lower lid of right eye. This bled freely and irregularly: it was operated on in another city, but soon recurred. When seen it was as large as a hazel-nut, and involved two-thirds of the lid, with a nodular mass on the inner surface of the lid which readily bled. The skin covering the mass was freely movable. A small portion of the growth was removed and found to be sarcomatous. The tumor, with the entire thickness of the lid, was then removed and the lid restored by a plastic operation.

DR. H. KNAPP, in the discussion, reported two cases of traumatic sarcoma of the lid, both terminating fatally.

Tumor of the Iris, Probably Tubercular. — DR. GEORGE C. HARLAN, of Philadelphia, related the case of a male child, who was born September 5, 1890. On February, 1893, weakness of the right eye, with photophobia and lachrymation, was noticed. The child was first seen March 6, 1893. There was some conjunctivitis but no chemosis. There was a small posterior synechia. A number of small, yellowish-white, rounded nodules were noticed on the periphery of the iris. These increased rapidly in size and others were added. The deposit increased rapidly and soon filled the upper outer third of the anterior chamber and completely covered the pupil. Intense photophobia of the sound eye developed, and enucleation of the diseased eye was done March 15th. After the operation the condition of the child rapidly improved. Microscopical examination indicated that the lesion was probably tubercular, although bacteriological examinations gave negative results.

Reflections upon a Disastrous Case of Ophthalmia Neonatorum was the title of a paper by DR. B. ALEX-

ander Randall, of Philadelphia. He referred to the great importance of strong, clear-cut expressions in relation to preventable disease, in order that the community and the profession may be properly aroused to the dangers of the situation and spurred to thorough and persistent efforts to combat them. Yet such expressions have danger to those using them, and to others, since careful precautions may fail to prevent the disease or bring it to a successful termination. This point was brought painfully home to him by a disastrous case of ophthalmia neonatorum in which he could find no fault with the prophylactic or the therapeutic measures, yet both eyes were lost. Some authoritative statements as to the preventability and curability of the disease were repeatedly called to the attention of himself and the accoucheur. He wished to protest against too uncompromising claims as to the powers of medical measures, since such may be two-edged weapons which turn most seriously against their authors or other medical men who have really done all that human means could effect.

Clinical Notes on Some Refractive and Muscular Cases.—Dr. B. L. Milliken, of Cleveland, O., said that in very high degrees of astigmatism the use of the ophthalmoscope was the most satisfactory method of testing refraction. Six cases were cited where attempts were made to correct by the ordinary means of testing, with no satisfactory results, while the ophthalmoscope gave most excellent corrections. In one case a lad, aged thirteen, with history of fronto-temporal headache for years, had a high degree of mixed astigmatism in the left eye, which under a mydriatic gave no satisfactory results, but with the ophthalmoscope the following was obtained, the right eye having only a moderate degree of astigmatism:

O.S. + 4 D. cyl. ax. 20° ⊂ 4 D. cyl. ax. 110° V. = $\frac{6}{9}$.

This glass, with the proper one for the right eye, gave great relief and has been worn with comfort.

In another case, that of a man, aged thirty-nine, there was high mixed astigmatism in both eyes, and especially marked in the right eye, which with a mydriatic had to be worked out with the ophthalmoscope and gave the following:

O. D. — 10 D. cyl. ax. 90° ⊃ + 7 D. cyl. ax. 180° V. = $\frac{6}{9}$.
O. S. — 6 D. cyl. ax. 100° ⊃ + 4 D. cyl. ax. 10° V. = $\frac{6}{9}$.

These glasses have been worn constantly for two years with the greatest comfort, the man working all day at bookkeeping. The ophthalmometer showed great irregularity in the images, and could not be used with any accuracy in testing the refraction.

Several cases were reported showing what could be done with prisms in correcting muscular insufficiencies, and the question was brought out as to the advisability of wearing prisms at various angles, for the purpose of correcting both a lateral and a vertical muscular insufficiency with the same glass; for instance, in a case of a lateral insufficiency of say 1°, and a vertical insufficiency of 1°, instead of making two prisms to correct—one at 90° and the other at 180°—place a 2° prism at 45° or 135°, right or left, as the case might be. The histories of several cases of this kind were given in which patients had worn the glasses thus with much benefit, and a trial of this kind was urged.

Several Cases in which the Vertical Diplopia Test Proved Untrustworthy.—Dr. Samuel Theobald, of Baltimore, described four cases in which the cover test showed a high grade of exophoria, both in distant and near vision, but in which the vertical diplopia test failed entirely to demonstrate the presence of the condition, in some of the cases even indicating esophoria. In one of these cases, and also in a case of esophoria, the notes of which were given, it was found that when, during the application of the vertical diplopia test, the cover test also was employed, a squint would show itself in the excluded eye, which the vertical prism failed to bring out, and which would disappear upon the removal of the cover, though the vertical diplopia was still maintained, showing that the latter had no controlling influence over the action of the lateral muscles. The cases, such as described, in which the vertical diplopia test proved untrustworthy are, however, comparatively rare and the writer still employs it daily and considers it of the greatest value.

Useful Vision Maintained by Means of a Totally Dislocated Lens.—Dr. Theobald, of Baltimore, presented an additional note on this case, which had previously been reported to the Society. The feature of interest was that a fragment of the dislocated lens, the capsule of which had ruptured two years before, fell through the pupil into the anterior chamber, where it remained for six months, resisting the solvent and opacifying action of the fluids of the eye so completely as to retain its transparence and its sharply cut angles. It closely resembled a bit of yellowish glass, and might easily have been mistaken for a foreign body. As its presence in the anterior chamber began to cause considerable irritation, the pupil was dilated, and it was caused to fall again into the vitreous chamber, its return to the anterior chamber being prevented by the application of a myotic. This was followed by the disappearance of the irritation, which has not since returned. The insolubility of the lens fragment is the more remarkable in view of the fact that the patient was but twenty-two years of age at the time the lens capsule ruptured.

A Series of Wools for the Ready Detection of Color-blindness.—Dr. Charles A. Oliver, of Philadelphia, had made the following modifications in the Holmgren series: Five individual tests are employed—pure green, pure red, rose, pure blue, and pure yellow. Loose and separate skeins of wool were employed. The colors were made of equal relative intensity. The value of the color used in each test-skein was expressed. The set was so constructed that it could be used by any intelligent layman. The test was so constructed that passing color-changes could be preserved and permanently kept for future comparison. The test was so constructed that written and verbal expressions of the character and the amount of the subnormal color perception could be given. The wools were made of one grade of manufacture and dyed with vegetable material.

After several years' trial the writer found that he could dispense with all but the five principal test-skeins, five pure match skeins, and eighteen confusion-skeins of relative equal value to the pure match-skeins.

Afternoon Session.

Gouty Retinitis, Choro-retinitis, and Neuro-retinitis.—Dr. Charles Stedman Bull, of New York, presented a communication with this title. The paper was based upon a study of the retinal changes found in over one hundred gouty patients. Five of these cases (two with autopsy) were reported in detail.

The points to which attention was drawn were:

1. The changes in the fundus are always bilateral though rarely symmetrical in the two eyes.

2. The degeneration in the walls of the blood-vessels and in the retina cause marked impairment of central vision, little or no impairment of peripheral vision, and never end in blindness.

3. The loss of central vision is always progressive up to a certain point, unless the cause of the disease is recognized early in the outset and immediately and properly handled. Improvement of the vision after the disease is established cannot be expected.

4. Hemorrhages into the retina are rare except in the beginning of the disease. Their absence later is probably due to the fact that the strength of the vascular wall is increased by the deposit, though its elasticity is diminished.

5. The most marked feature in the fundus is the development of the arterio-sclerosis and phlebo-sclerosis. This is seen by the ophthalmoscope in the vessels of the retina, and the microscope shows that the degeneration

exists as well in the vessels of the choroid and optic nerve.

6. Another almost equally pathognomonic symptom is the peculiar yellowish granular exudation in the retina, located by the ophthalmoscope around the posterior pole of the eye, and generally leaving the macula intact, and proved by the microscope to be mainly in the nerve fibre layer, though found in all the layers except that of the rods and cones.

7. The changes in the optic nerve-fibres seem to be almost entirely intraocular, and cannot be traced for any great distance back of the eyeball.

Retinitis Punctata Albescens.—Dr. Myles Standish, of Boston, said that these cases are not uncommon, yet the literature of the subject is surprisingly small for a condition which presents such a striking picture to the ophthalmoscope. The majority of cases come on account of some discomfort in the use of the eyes, and the white, rounded, glistening spots are discovered in the retina in the course of the examination. After a time comfort in the use of the eye returns, but without the spots disappearing. What the substance is that produces the appearance is undetermined. A case was reported which was of special interest, as it apparently filled out the clinical history of these cases in the prodromal and acute stages.

Removal of Hard Cataract by Suction.—Dr. Lucien Howe, of Buffalo, said it was probable that every operator has occasionally experienced difficulty in completing the final act of extracting the lens. In order to obviate this difficulty the writer had employed an instrument similar to a large dropping-tube, by means of which a partial vacuum could be made. The tube was applied to the protruding lens, enabling the operator to draw it out.

Dr. Frank W. Ring, of New York, exhibited an ocular mask of papier-maché, to be used for the protection of the eye after cataract operations.

The Artificial Ripening of Cataract.—Dr. Edward Jackson, of Philadelphia, reported a series of cases which had been treated by tapping the anterior chamber, drawing off the aqueous humor, and massage of the lens through the cornea, as suggested by Pooley and advocated by White.

The operation was followed by very little reaction; there being no iritis or posterior synechia in any case. In patients over fifty years of age the operation was followed by rapid increase in the opacity of the lens and early maturity of the cataract. In patients under thirty-five years of age no effect upon the existing lens opacity was produced.

The author concluded that this method of ripening cataract was certainly more efficient than that of Forrester—iridectomy and massage; was almost entirely free from danger, and was probably a better means of avoiding prolonged practical blindness than the extraction of the immature cataract.

Traumatic Dislocation of the Iris under the Unbroken Conjunctiva—The Eye Damaged but Preserved—Typical Sympathetic Ophthalmia in the other Eye.—Dr. Herman Knapp, of New York, reported the following case:

Mr. M——, aged forty-five, came under observation December 21, 1892. Ten days before his left eye had been struck with the head of a small pet dog with which he was playing. The eye had been red and black ever since, but not painful, the sight impaired. On the inner side of the cornea, and 2 mm. from its margin, the conjunctiva was raised by a black mass which proved to be the iris. The conjunctiva showed no wound or scar. The whole iris was found absent from its normal position. The lens was in place and transparent. There was no neuro-retinitis or isolated rupture of the choroid. Vision equals $\frac{15}{200}$. The right eye was free from any irritation. The patient was directed to bandage the injured eye lightly, and not use the other eye and keep quiet. Everything did well until twenty-nine days after the accident when symptoms of sympathetic inflammation appeared in the right eye. Under active treatment the attack subsided, but relapses occurred and vision in the right eye was completely lost. In the left eye vision equals $\frac{20}{70}$, and the displaced iris has shrunken to a flat, blackish mass scarcely raised above the conjunctiva.

Second Day, Thursday, July 20th—Morning Session.

Removal of Steel from the Vitreous with the Electromagnet.—Dr. E. E. Holt, of Portland, Me., had previously reported six cases treated by this method. In the present paper he reports three cases. In all the pieces of steel had entered through the anterior chamber, fracturing the lens. The conjunctiva was separated and an incision made through the sclerotic, back of the equator of the eye, the knife in each instance striking the foreign body. The electro-magnet was then introduced and the steel removed. The lens was subsequently absorbed and good vision obtained in every case, notwithstanding the fact that in the third case there was pus in the anterior chamber when the case came under observation.

A Permanent Magnet for Use in Removing Foreign Bodies from the Cornea was described by Dr. Walter B. Johnson, of Paterson, N. J. It consists of a bar of steel, cone-pointed and elongated at each end. It is charged by rotating it within the magnetic field of a generator. It will continue in full magnetic strength for a long time. It has served an excellent purpose on several occasions in removing small particles of steel from the cornea, which had perforated and almost entered the anterior chamber.

Suppression of the Visual Image.—Dr. Walter B. Johnson, of Paterson, N. J., read a paper on this subject. In convergent strabismus there is present an amblyopic condition affecting the squinting eye. Hypermetropia was considered by Donders and others as the most frequent cause of convergent squint, exciting excessive efforts at accommodation, resulting in convergence, confusion of images, and subsequent mental suppression of visual image in one eye, finally terminating in an amblyopic condition. It has been claimed by Schweigger, Alfred, Graefe, and others that amblyopia is not caused by squint but exists as a primary or congenital condition. This produces convergence in consequence of confusion of images. The variety of amblyopia in question is apparently a purely physiological condition, the fundus being normal. The amblyopia is sometimes overcome by correction of the visual defects, but vision in the amblyopic eye rarely becomes equal to that of the fellow-eye.

The following case was reported: T. K——, aged nineteen, had been cross-eyed since the age of three years. He has never been able to discern any object with left eye. There was hypermetropia in right eye. Vision in left eye equalled fingers at six inches. On June 13th enucleation of the right eye was required as the result of accident. June 18th, vision in left eye had increased to fingers at three feet. Examination showed a hypermetropia of 1.50 D. Under careful practice the vision in left eye rapidly improved, so that by July 1st he could read $\frac{20}{15}$ with correcting glass, and Jaeger, No. 1, at twelve inches. Examination three years after the loss of the eye showed that the improvement had continued.

In this case, whatever was the change which led to the loss of vision, it was not structural either in the eyeball or the nerve centres, but was in all probability a pure amblyopia which resulted from the long-continued mental visual suppression.

A Case of Congenital Cyst of the Orbit, with Anophthalmus, was reported by Dr. George C. Harlan, of Philadelphia. The patient was a well developed and healthy child, five months old. The left eye and appendages were perfectly normal. A tumor about the size of a small hen's egg filled the right orbit and projected considerably beyond it. The orbit was fully of

adult size, and the lids distended to more than twice their normal size. The skin was movable and of natural appearance. The cilia were well developed. The lids were separated about two centimetres, the exposed conjunctiva was congested but not much changed. There was no discharge. There was nothing to mark the position of the cornea. There was no movement in the tumor, no pulsation, and it was incompressible. Fluctuation was decided, but very tense.

As the tumor was growing and the deformity great, it was decided to remove it. Incision through the conjunctiva gave exit to a quantity of clear watery fluid. The cyst was simple, the outer portion being fibrous and tough, and the inner delicate, semitransparent, and bluish.

The child died twenty-four hours after operation, apparently from exhaustion following upon shock.

A careful inspection of the orbit was made after death. There was no connection with the intracranial cavity. There was no indication of any aperture. Nothing resembling an eye could be found in the extirpated cyst, though at the bottom of the sac there was an undefined mass of tissue.

A review of the literature was given, and the author concluded that the tumor was probably formed of the embryonic tissues of the eye, and that it was either an exaggerated hydrophthalamus or a fœtal encysted coloboma which, by its early inception and enormous growth, had prevented the evolution of the eye.

Restoration of the Upper Eyelid by means of a Flap Taken from the Cheek.—Dr. Samuel B. St. John, Hartford, Conn., demonstrated a method which was applicable to cases in which the upper lid had been destroyed by disease or injury, or in which the lid was removed by operation. In making the flap the incision commences about half an inch in front of the ear, and runs forward below the lower lid about half an inch, and continues until the side of the nose is reached. It is then carried downward and until the flap is of sufficient width, and then taken backward. The flap is next separated and secured by numerous stitches to the freshened surface above. The gap left is closed by separating the tissues of the cheek below the wound and sliding them upward.

Two cases were reported in which this plan had been used with success, and photographs of the patients were shown.

Executive Session.—The following were elected to membership: Dr. F. E. Cheney, of Boston, Mass.; Dr. Charles H. Thomas, of Philadelphia, Pa.; Dr. William H. Wilmer, Washington, D. C.; Dr. H. B. Chandler, Boston, Mass.; Dr. J. E. Weeks, New York; Dr. George Fiske, Chicago, Ill.; Dr. Edward Fridenberg, New York; Dr. William Cheatham, Louisville, Ky.

Officers for Ensuing Year.—*President*—Dr. George C. Harlan, of Philadelphia, Pa; *Vice-President*—Dr. O. F. Wadsworth, Boston, Mass.; *Secretary* and *Treasurer*—Dr. Samuel B. St. John, Hartford, Conn.; *Corresponding Secretary*—Dr. J. S. Prowt, Brooklyn, N. Y.

The Society adopted a by-law limiting the membership to one hundred and fifty.

Adjourned.

Governor Altgeld and Dr. Dewey.—Commenting on Dr. D. H. Tuke's criticisms of the disgraceful application of the spoils system to Kankakee, the Chicago *Record* remarks: "If this abuse of political power is rough on the medical men who suffer dismissal, how about the public in general, which frequently loses at one swoop of the spoilsman's axe the benefit of an efficient medical officer's whole lifework and experience? The practice works harm both ways, and is a blot on American political usage. And the dismissal of Dr. Dewey by Governor Altgeld is recognized by the medical profession as a world-wide disgrace." Altgeld is the name of the man, and he should be remembered by all good Illinois doctors.

Correspondence.

OUR LONDON LETTER.

(From Our Special Correspondent.)

ROYAL COLLEGE OF SURGEONS—JUBILEE OF THE FELLOWSHIP—EXHIBITION OF RELICS OF JOHN HUNTER—CENTENARY OF HIS DEATH—ADDITIONS TO THE MUSEUM—CONVERSAZIONE—MEETING OF THE FELLOWS—ADDRESS OF THE PRESIDENT—POSITION OF FELLOWS AND MEMBERS—THE CROONIAN LECTURES AT THE ROYAL COLLEGE OF PHYSICIANS—USES OF NITRITES—SIR W. H. BROADBENT—SMALL-POX—ANOTHER FEVER HOSPITAL—APPROACH OF CHOLERA—THERAPEUTICS OF THE NITRITES—PROFESSOR LEECH'S CROONIAN LECTURES—USE OF NITRITES IN ANGINA PECTORIS—IN CARDIAC DYSPNŒA—ASTHMA AND BRONCHITIS—URÆMIC DYSPNŒA—HEADACHE AND MIGRAINE.

London, July 8, 1893.

The Royal College of Surgeons has been the centre of medical attraction this week. This is the fiftieth year since the institution of the fellowship, and the holders of that distinction have been celebrating its jubilee. This is also the one hundredth year since the death of John Hunter, and this centenary has been combined in the celebration. On the 5th inst. there was a most interesting exhibition of the Hunterian relics of the college, when besides these a number of exhibits were lent by their present owners, and so a most interesting collection was brought together. Some of Hunter's furniture and instruments were thus seen as cherished curiosities and memorials, though of course his great monument is the museum. But this also was made to combine in the celebration, as the additions made to it during the past year were on view, and will remain so for another week. Some of these specimens are unusually interesting, but they can be examined more leisurely after the Hunterian relics are again dispersed. I wonder if the owners of some of these will bequeath them to the college. It would be natural enough for the whole of them in course of time to find a permanent home there.

On Wednesday evening a conversazione was held at the college in honor of the jubilee. Nearly two thousand guests were received by the president and vice-presidents. The whole of the museum, including the recent additions, was thrown open, and presented a brilliant appearance. All the rooms were illuminated with electric lights, the ladies' toilettes gave lightness to the scene, and music and flowers added to the attractions.

On the 6th inst. a meeting of the Fellows was also held, when the President, Mr. Thomas Bryant, addressed the assembly. He said it was most appropriate that the Fellows should keep the jubilee of the institution of that grade. Some years before the charter establishing the fellowship was granted, the Council had wished to inaugurate such a change; but various circumstances delayed the proposal. In 1843, however, the new order was brought into being by the appointment by the Council, under the new charter, of 300 members to be Fellows. To these 242 were added in August, 1844, at the instigation of the government, to allay the discontent among members caused by the election, by mere favor of the Council, of a proportion of their number to a more privileged position. But agitation continued, as well it might, among the remaining members, until, in 1852, a supplementary charter was obtained authorizing the Council to appoint members of fifteen years' standing to be Fellows on the payment of ten guineas. The president said it was futile now to ask whether the wisest plan was adopted at the beginning. The fellowship is now obtained by examination, and is regarded as a most valuable surgical distinction. It confers also the privilege of electing the Council. And so the Fellows are rather an exclusive body, which the president seems to think quite natural. But, on the other hand, look at the position of members. They are the main body of the college; they supply the

funds; their influence is necessary to the college; if their diplomas are only licenses to practise, to call them members is an absurdity. But taking the president's statements, is it not clear that the new order filched all its privileges from the members? I believe the members will not be satisfied until they have a vote in their own college. The fellowship will be an academical distinction which will carry enormous prestige, and the Fellows may well give up their exclusive pretensions to govern the college.

On the same day, the 6th, the election of four members to the Council was held. Mr. Pemberton and Mr. Macnamara were re-elected, and Mr. Mayo Robson and Mr. H. Morris were chosen as new members. There were 134 Fellows who voted in person, and 390 proxies. Would it not be a much greater honor to be elected by 12,000 members?

The Croonian lectures this year were intrusted to Professor D. J. Leech, who took for his subject the action and uses of the nitrites and allied compounds. He related a number of experiments, and illustrated his lectures with tracings, formulæ, and graphic groupings. Only a few points in these interesting lectures can be referred to in a letter. The outcome of experiments on the heart muscle is that the molecules of the ONO group, in whatever combination, when present in even small amount, tend to quicken but to weaken the contractions. If the solutions coming in contact with the heart are very dilute, the quickening may make up for the weakening, and so the heart may do as much or even more work for a short time. But stronger solutions, after quickening, weaken, slow, and arrest the contractions. The evil influence of nitrites on the heart is evanescent if the nitrites be removed. Compared with the effect on muscle, nitrites affect other tissues much less. Even the tissues of the nervous centres seem to be less easily influenced. It has been shown that a solution of 1 to 5,000 has a marked effect on voluntary muscle, though its function in the living body is hardly disturbed. But the involuntary muscles and the heart are affected by marvellously minute quantities. Yet they do not seem to be permanently affected, and rapidly resume their normal function on the removal of the drug. They even seem less readily affected after repetitions of the experiment.

The nitrates in some conditions resemble the nitrites, but these seem to result from the reduction of the NO_3 group to the NO_2. In other respects there is a striking contrast between the actions of the two salts traced in all the metallic compounds. The nitrates exercise a powerful and long-lasting influence on the circulation in man. The action of a dose of ethyl nitrate is to lower the tension, which reaches its lowest point in thirty to sixty minutes; but the effect can be perceived for four or five hours—a striking contrast to the evanescent effect of the nitrite. This may be due to the fact that the nitrates are so much more stable. They seem, too, to cause a headache more often than nitrites, and this symptom may come on much later—may not appear for even four or five hours.

The Queen has conferred a baronetcy on Dr. Broadbent. Small-pox shows a further decrease. The Asylums Board has been authorized to secure another site for a fever hospital in the suburbs. Great efforts are being made to strengthen our defences against cholera, which is steadily advancing toward us. Our sanitary authorities seem alive to the danger, and confident of escaping.

London, July 14, 1893.

I have already sent you some account of Professor Leech's first two Croonian lectures. In the third and concluding one he followed up the subject of the nitrites from a therapeutical point of view, and to many this will no doubt be the most interesting. His first point was the minute quantities which affect the vascular system. An eighth of a grain of sodium nitrite, a fraction of a minim of ethyl nitrite, the sixteen-hundredth of a grain of nitro-glycerine will often affect the circulation. And yet, as a second point, considerable doses do not readily cause death. There seems to be no recorded case of death from ethyl or sodium nitrite. Amyl nitrite has been taken by the dessertspoonful, and yet recovery has taken place. In only a few instances has nitro-glycerine been fatal. The third important point is the evanescent character of the nitrite action. When nitrites do good their influence soon ceases, as it does when they do harm, and there is no cumulative influence. The cases, then, in which they are most likely to be useful are those in which the heart is embarrassed from a want of the normal relationship between its power and the calibre of the vessels through which it has to transmit the blood. Angina pectoris is the most conspicuous of this class of cases. A large proportion of anginal attacks seem due to a rise in tension, and this in turn is caused by a decrease in the calibre of the system or pulmonary vessels, and the consequent sudden call on the heart for increased propulsion, to which it is not perhaps able to respond on account of alteration in its walls. Other theories have been proposed, but Dr. Leech did not attach much importance to them. In reducing this tension we have three objects in view: 1, to relieve pain as rapidly as possible; 2, to avert a fatal end; 3, to prevent the recurrence of pain. The second object is attained when the pain is removed. The pain of angina varies much in duration; generally it is short in the earlier stages, and abates on the cessation of the immediate cause—generally movement. But later it may last several minutes and sometimes for hours. Propyl, isobutyl, and amyl nitrites reduce tension in a few seconds; sodium nitrite takes two to five minutes; ethyl nitrite about the same; nitro-glycerine forty seconds to two minutes. The inhalation of the fatty nitrites is thus obviously the most prompt remedy. The amyl nitrite in common use is a mixture of several nitrites, and should be replaced by a purer article, although the compound hitherto employed has been of the greatest service. In some advanced cases the remedy fails from its evanescence, and then we may resort to one of the nitrites having a more durable action. Although he regards these medicines as of the highest value in relieving and warding off attacks, Dr. Leech does not look upon them as possessing reliable curative properties. No doubt, if attacks can be prevented, recovery may take place, or at any rate, pain being removed, life may be prolonged, and the vessel walls may gain some advantage in their continual contest with the blood current. But it does not follow that the recoveries recorded after nitrites were caused by the medicine. The use of the nitrites is but one element in the treatment. They should be accompanied by agents which improve the state of the vascular system, among which iodide of potassium and arsenic hold the first place.

Next to angina the nitrites are of most use in cardiac dyspnœa. It may be thought that the rapidity with which the effect passes away tells against them in such cases, and this is so; but the good effect may remain to some extent, and the arteries which have been dilated by the dose do not contract again the moment the drug is withdrawn.

In syncope and heart failure it is more difficult to determine the propriety of using nitrites. The heart will be relieved of part of its work, and beat more quickly under their influence; but it is not easy to graduate the dose to the necessities of the heart, and a quantity thrown into the circulation by inhalation might easily stop a failing heart. In pulmonary dyspnœa many cases have been recorded as benefitted, and in asthma and bronchitis there is a field for the use of the nitrites. They may relieve the dyspnœa, but can hardly be expected to be curative. In uræmic dyspnœa the use of nitrites is still less effectual. In migraine and headache small doses may be tried, as then they can be repeated if without result. A large dose should not be given, as, if useless, the effect will be very unpleasant.

A Nurses' Co-operative Club has recently been formed in London.

OUR BERLIN LETTER.

(From our Special Correspondent.)

PROFESSOR LIEBREICH VERSUS KOCH—BEHRING'S DIPHTHERIA-HEALING SERUM—FOOT-AND-MOUTH DISEASE IN HUMAN BEINGS—THE TREATMENT OF EPITHELIAL CANCER WITH ARSENIC.

BERLIN, June 25, 1893.

AT no time has there existed such a sharp controversy regarding Koch and his followers as now, and if matters continue as they exist at present we may possibly live to see the end of Koch's discoveries. Professor Liebreich, the renowned pharmacologist, is the latest opponent of these investigations. In a paper entitled the "Methods of Examining Cholera Dejecta" he finds totally different results from those heretofore published and accepted by Koch. So, for example, in speaking of peptone cultures, Liebreich claims they are unreliable, as the preparations of peptone have a curious and at times different combination.

So also the cholera red reaction is not characteristic of cholera cultures, as claimed. When other bacteria were present in conjunction with cholera vibriones, the reaction did not take place in a peptone culture.

The animal experiments were also found to be unsatisfactory, especially the method called "infections modus," as described by Koch, wherein he neutralizes the gastric juice by the addition of soda solution and paralyzes the intestinal peristalsis by injections of opium. These experiments were usually conducted on guinea-pigs.

The method of Pfeiffer, of bringing a culture into the abdomen and thus producing a characteristic clinical picture is discredited, as the same symptoms can be produced by introducing other than cholera bacteria. Especial attention is directed by Liebreich to the way in which Pfeiffer introduces his inoculations. Liebreich claims that as Pfeiffer uses the amount of a culture that clings to a platinum needle, this conflicts with the morphological characters of the comma bacillus as described by Koch.

Liebreich believes that the cholera bacillus of India is entirely different from that causing cholera in France and from the one found in Germany.

Koch stated that the comma bacillus of India leaves milk unchanged, whereas this is decidedly untrue as regards the bacilli found in France and Germany. The form of the cholera vibriones varies according to different investigators. B. Fischer, of Kiel, who accompanied Koch to Egypt and India, found that the comma forms change at times to rod-shaped bacilli, and Finkelburg states that they assume other forms than the above.

Peter, in Paris, insisted a long time ago that bacilli will frequently change their shape and assume "comma" forms. A very important point is the fact that people who were apparently in perfect health were found on bacteriological examination to have numerous comma bacilli in their intestines. Further, Liebreich strictly opposes the ideas embodied in the treatment of disease by means of blood serum, and declares the only rational method of treating disease is based upon the so called cellular doctrine of Virchow, because our organism is built up by cells, and it is here that a disease producer or generator must first cause a weakened function, the interference of which gradually manifests itself in the usual way.

Pigeons are ordinarily immune against anthrax, but if we permit them to hungerize, to weaken the "vitata fungie" of the cells, we find the former immunity disappearing and infection occasionally taking place. Professor Brieger, a prominent disciple of Koch, and a well-known bacteriologist, has branded Liebreich's remarks as full of mistakes. Liebreich's paper excites here much comment, since it is the first of its kind to criticise Koch's method, which has until now withstood the test of time. A reliable informant tells me that Koch will answer Liebreich in detail as soon as he receives the stenographer's copy of the lecture. I shall not fail to give your readers Koch's answer, which is anxiously expected.

Besides cholera, diphtheria and its so called serum treatment invite continued attention. Professor Behring, assistant in the Koch Institute, has been occupied continuously with the question of the treatment of diphtheria. From his latest work we review the following: "In the last few months thirty cases of diphtheria have been treated with the 'heil-serum.' In all cases diphtheria had been positively diagnosticated. More especially in the Institute for Infectious Diseases, every case that did not contain diphtheria bacilli was excluded. Of these 30 cases 24 were cured and 6 died, giving a mortality of twenty per cent. These numbers are yet too small to justify positive conclusions, but seem to encourage the application of the treatment on a larger scale.

"The serum was introduced with a Koch's hypodermic syringe containing 10 c.c. of the fluid, and was chiefly injected under the skin over the pectoral muscles. Gentle massage allows the introduction into children of 20 c.c., with but slight distention of the skin in the vicinity of the injection. The skin does not show any general reaction, but a mild form of sensitiveness remains for a few days. There is, however, no visible influence on the local inflammatory process in the form of a local reaction. Judging from present experiences, the serum does not show any detrimental influence on the body. There are three distinct results aimed at by this therapeutical method: 1. The prophylaxis of the disease if the serum be applied before the appearance of characteristic symptoms. (This has been demonstrated in numerous experiments with animals.) 2. The arrest of the development and of the further progress of the disease. 3. The transformation of severe and advanced infection into a mild form of the disease, resulting in speedy convalescence."

This healing serum is as yet not supplied to private persons, to physicians, or even to hospitals, the means not being at hand for its production in sufficient quantity. The present supply of serum is being used up by certain specified hospitals—in Berlin at the children's department of the Institute for Infectious Diseases, where children suffering with diphtheria are taken as the number of beds permits.

Besides Behring, a young Berlin pædiatrist, named Hans Aronsohn, has published the results of experiments with healing serum which appear to go far beyond the results obtained by Behring, providing they can be substantiated. Aronsohn claims to have discovered a process by which a solid form of serum is produced one hundred times as effective as that made by Behring. According to Aronsohn's experiments on guinea-pigs, diphtheria-infected children weighing about ten kilogrammes can be cured by the application of several decigrammes. The speaker further hoped to be able during the next few months to cultivate such a large quantity of this antitoxine that many children can be treated by it.

Dr. I. Boas read a paper before the Society for Internal Medicine—"The Existence of Foot-and-Mouth Disease in Human Beings." It has been known for several decades that this disease can be transmitted from animals to man, but a true clinical picture of the method of its transmission, the author said, was wanting.

Two years ago Dr. Siegel, of Britz (near Berlin), made some clinical and bacteriological investigations during a very severe epidemic, which are rather conclusive. Dr. Boas, in conjunction with Dr. Siegel, examined a number of recent and chronic cases of foot-and-mouth disease, and gave the following description of it: The period of incubation lasts from eight to ten days, and beyond a feeling of lassitude offers no characteristic symptoms. The prodromal stage is marked by chills, a general sensation of fatigue, dizziness, pains in the lumbar region and drawing pains in the muscles of the limbs. At the height of the disease they found a temperature of 38° to 38½° C. (100.4° to 101.3° F.), in children 39° C. (102.2° F.), and more frequently an enlargement of the liver with tenderness on pressure, but no enlargement of the spleen. After the fever subsides a peculiar eruption appears on the lips especially, on the cheeks, mouth, and

mucous membrane of the tongue, which has the characteristic of stomatitis aphthosa. This is accompanied by swelling and œdema of the tongue.

In one severe case the tongue was so swollen that it was pushed out of the mouth, and part of it was lost by necrosis. In this same patient a swelling of the masseters took place, and he is at present unable to open his mouth and to masticate his food, although it is three years since he contracted the disease.

Along with this mouth affection there is frequently an exanthematous eruption, appearing sometimes in a simple form, sometimes in the form of petechia, sometimes as blisters like those in pemphigus. As soon as the eruption appears the fever subsides, the appetite returns, and convalescence ensues. In some cases, however, severe complications appear, as in scorbutus; severe mouth, stomach, and intestinal hemorrhages; convulsions, in children, and frequently, also in children, catarrhal pneumonia. Several hundred were treated and only twenty ended fatally.

As an etiological factor Dr. Siegel finds a special bacillus, and is still engaged in cultivating pure cultures and experimenting on animals.

Besides this acute form there exists a chronic condition, manifested by weakness, anorexia, tenderness in the region of the stomach and liver, lasting several weeks. The lecturer witnessed an epidemic of foot-and-mouth disease in a Berlin family. They drank raw milk, which they procured from a farm where an epidemic of the disease had existed. He furthermore said that this interesting infectious disease will tend to explain certain dubious cases of gastricism, febris gastrica, and other cases in which a diagnosis was uncertain.

Dr. Lassar, a dermatologist of Berlin, recently read a paper before the Berlin Medical Society on "The Treatment of Epithelioma with Arsenic." He recommends the use of five drops each of Fowler's solution and spirit of peppermint, three times a day. He showed wax models of patients, which demonstrated the good effects of the remedy. In the discussion following, Dr. von Bergmann intimated that according to his experience a cure of epithelial cancer may take place under indifferent treatment. The ideal treatment of epithelioma, as that of all cancers, is removal by the knife. Only in inoperable cases could a trial of Lassar's remedy be applicable.

New Instruments.

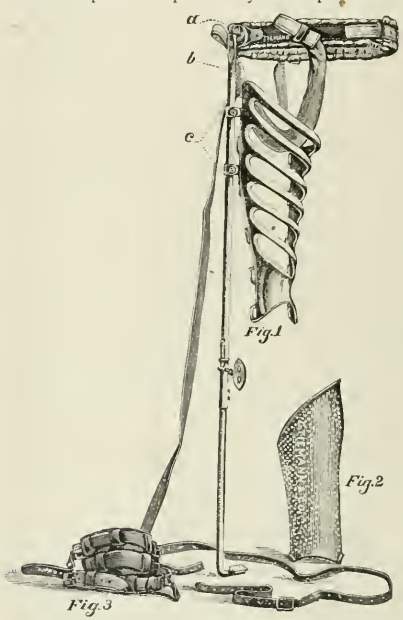
A NEW SPLINT FOR TREATING FRACTURES OF THE FEMUR WITHOUT CONFINING THE PATIENT TO BED.

By J. S. PYLE, M.D.,

CANTON, O.

It has been my experience to meet with difficulty in treating, to my own satisfaction, fractures of the upper third of the femur. With few exceptions, all the old dressings fail to keep the limb in position when the body is moved, and consequently it requires close attention to secure a good result. The confinement and necessity of restraining the movements of the body are very objectionable to patients, and any measure that will do away with this feature will be acceptable. I have succeeded in doing this, and, in addition, afforded correction to other defects that were always present to a great degree.

The thigh in the upper third is not cylindrical, and anything that would girdle the limb changes the contour, and to this extent offers the greatest hindrance to coaptation of the broken fragments. A perfect dressing should restore the natural boundaries, and properly support the seat of fracture. Many of the dressings are minus these features and are worse than nothing, inasmuch as they add to the weight of the limb and do not assist in maintaining reduction. The familiar plaster-of-Paris dressing is an instance. The plaster bandages are rolled on the thigh, over perhaps coaptation splints, and carried up to the perineum just on, or a little above, the seat of fracture. Usually, with the weight-and-pulley appliance, this completes the dressing. If the plaster bandage should be carried over the groin in the form of a spica to obtain further support, it soon breaks and is found of no assistance, but adds greatly to the discomfort of the patient. Every time the patient moves there is a corresponding movement at the seat of fracture, and the extension appliance, with the patient's restlessness, operates continually in getting the shaft of the bone out of alignment. In this condition the broken bone is allowed to remain until repaired. These reasons appeared to me to make the greatest demand for an appliance that would supply a perfect support, immobilize the seat of fracture, and in addition improve the portability of the patient.



In Figs. 1, 2, and 3 the apparatus is represented, which is seen to consist of an anterior and a posterior splint, knee-girth, pelvic girth, perineal band, and an extension rod with vertical support. The latter, with certain modifications, answers the description of Sayre's long hip-brace. The forward and backward movement of the vertical rod at the hip-joint is prevented, but abduction is allowed. The steel pelvic girth encircles the body below the crest of the ilia, the object of which is to prevent any movement of the thigh when the body above the lumbo sacral articulation is shifted. This is essential. If the girth encircled the body above the ilia it would necessitate the movement of the thigh every time the trunk changed its position. In the present arrangement this is prevented, and the upper part of the body allowed free movement without altering the position of the broken limb whatever. The vertical support and extension rod are made of the best steel. The former is a piece of steel tubing 26½ inches long and 5/8ths of an inch in diameter, containing the extension rod, both being so proportioned in length as to be adjustable to a person of any size. At the upper end of the tubing a short steel rod 3½ inches long, and of the same diameter as the tube, is hinged to the pelvic girth so as to allow abduction. The lower end is turned, leaving a shoulder, which makes a joint with the steel tubing at *b* in Fig. 1, where the posterior splint can be taken on and off when occasion requires. The joint is made secure by means of a screw. The extension rod is operated by a key and rack,

and at the lower end bent at right angles, bearing a rotary steel plate used as a fastening to the under surface of the shoe. The splints are made of copper and aluminum. The posterior splint is the principal support, and is an aluminum casting weighing two pounds. The pattern for the casting was obtained from a plaster mould of the thigh. In this way it was possible to secure a splint bearing the exact figure of the thigh throughout its whole extent. It was thought best for the sake of lightness to have it ribbed. The same support is obtained, and at the same time the surfaces and curves corresponding to the thigh are maintained. The upper rib was traced along the gluteal fold, reaching on the outside above the trochanter major. From this it will be seen that every portion of femur is supported. The ribs take a spiral course and reach the level of the abductors and gracilis on the inner side. Two-thirds of the circumference of the thigh is enveloped by the splint, and it extends as low as the origin of the soleus muscle on the leg. The lower end of the splint is solid, and its inner surface is a fac-simile of the posterior surface of the knee-joint. The splint is fastened to the vertical support by means of two bands, which can be tightened or loosened, allowing the splint to be moved up or down at will. This allows it to be adjustable. Along its inner and outer borders the splint is provided with slots for lacing straps, which is shown in Fig. 4 with lacer adjusted.

Fig. 5 shows the posterior surface of the thigh with the splint applied. Fig. 2 illustrates the knee-girth, which, in its application, is strapped to the knee independent of the splint. The straps running along the upper and lower borders, secured by retainers, are buckled into the two lowest slots on each side of the posterior splint. Securing the knee in this way prevents any rotation and keeps the limb straight.

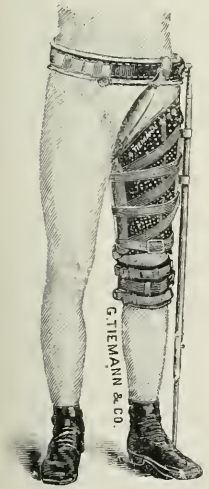


Fig. 4.

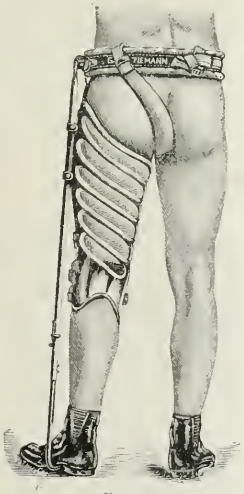


Fig. 5.

In Fig. 3 the anterior copper splint is represented, which is a counterpart of the posterior splint, but made to fit the anterior half of the thigh, extending from the inguinal fold to within a few inches of the patella.

Figs. 4 and 5 show the various parts of the apparatus applied to a broken thigh. These illustrations, which are reproductions from photographs, show how thoroughly the thigh is supported. It will be seen at a glance that the splint allows the greatest freedom to the movements of the body, without in any way disturbing the seat of fracture. The patient is at liberty to change posture, requiring no assistance, and can be placed upon the bedpan or allowed to go about with the aid of a crutch, without having any fear of doing injury to the broken bone.

The anterior and posterior splints are made in three sizes and for both limbs. The patterns have been placed in the hands of Messrs. Tiemann & Co., of New York, where the splint can be seen and obtained by parties desiring to purchase. Owing to the difficulty in its manufacture, no one but Tiemann has been authorized to make them. In the construction I wish to express my obligations to Mr. C. B. Miller, foreman of the Canton Surgical Chair Works, for the excellent workmanship and patient care exercised in executing my ideas.

68 West Tuscarawas Street.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending July 29, 1893.

	Cases.	Deaths.
Typhus fever	0	1
Typhoid fever	22	7
Scarlet fever	45	4
Cerebro-spinal meningitis	11	14
Measles	185	9
Diphtheria	74	36
Small-pox	2	2
Cholera	0	0
Varciella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

The Vertigo of Arterio-Sclerosis.—Dr. Church calls attention to arterial disease as a neglected, but nevertheless very frequent, cause of vertigo. When a man past the prime of life, without any previous serious illness, suddenly becomes faint, has a swimming in the head, a feeling of giddiness, of distinct gyration, of darkness and impending death—one or several of these sensations—he usually at once seeks advice, in grave apprehension—sometimes well founded—of cerebral apoplexy, and usually gets a cholagogue cathartic, or is told that his stomach is wrong, and sometimes is told so rightly (*The British Medical Journal*). But cases are constantly presenting themselves in which such vertiginous attacks are happening at shortening intervals. The patient gives up his tobacco, his spirits, if he is a drinker, cuts down his meat, takes to some of the many waters recommended, has Turkish baths, and gains only moderate relief or none at all. If carefully examined, he will be found to have a well-defined tortuous frontal artery, a distinct arcus senilis, a clanging second sound of the heart, a pulse of increased tension, and scanty urine, with perhaps a trace of albumin. He finds that exertion of a moderate amount precipitates the attack, that he cannot endure a temperature at all above the usual, and often a change of position from recumbency to the upright is the occasion of giddiness. The attack is often accompanied by a fulness and throbbing in the head, a feeling of heat in the scalp, a blur before the eyes, and transient pallor of the face. In the treatment of this affection iodide of potassium is the sheet-anchor, and is given in doses varying from thirty to ninety grains a day for months, sometimes with the result of effecting a complete cure.

Medical Ethics in Life Insurance.—The editor of the *Pacific Medical Journal* tells some very caustic truths when he says that it is a common custom for the medical director or medical examiners of life insurance companies to write to the family physician, or physician who may have attended an applicant, for his opinion as to the applicant's physical or mental condition. The medical director generally attempts to convey the idea to the family physician that by giving his opinion to the company he is conferring a favor upon the applicant. Now,

what are the facts of the case? The company is anxious to get new business; it offers a runner or so-called agent an enormous percentage for any new risk that he can procure; the runner talks, that is, often lies a man into making an application for a policy; he has the company's medical examiner pass upon the case; there is something doubtful about the risk and the company wants the opinion of the family physician who knows all about the case. Now, will any one kindly explain why the company should not pay the family physician for his opinion, or why the family physician should give his opinion for nothing? Who is to be benefited by the transaction? the company and runner, of course; that is what the officers of the company are doing business for, to make their own fortunes and live like princes. The family physician's opinion may be worth hundreds or even thousands of dollars to the company by either enabling it to avoid a risk upon which it would lose thousands of dollars or by enabling it to take a large risk that will pay several thousand dollars annually, and to carry which will cost the company as many hundreds. We recently have adopted a plan that we can recommend to our readers with that absolute and positive assurance that it is born of experience, viz.: When the runner or life insurance director writes to you for your opinion of an applicant who has been examined by the company's examiner, write to the medical director that you require two conditions before you can comply with his requirement: that he send the permission of the applicant and a fee of $25 for your written opinion. This is simply a plain, common-sense business transaction. There is nothing in medical ethics to require you to give the medical company's medical director your opinion for nothing; it is your professional opinion the company wants and they want it for business purposes. Charge as you would charge any other corporation for medical services rendered. Do you suppose that if the company's attorney wanted the opinion of an outside lawyer he would think of asking him for gratuitous services? Furthermore, is it proper, even with the applicant's permission, to divulge certain facts which have been acquired in the pursuit of professional investigation? May there not be some little points known only to his medical attendant and which he would strenuously object to being divulged were he aware of their existence? The entire question is one worthy of serious attention and thought on the part of every conscientious practitioner.—*Medical Review.*

The Successful Specialist.—Within a month we have been told by three fresh graduates that they were going into the field as "specialists." Let them heed the words of those best able to judge. Dr. Joseph Price has lately said: "The successful specialist must have several years of active general practice. It is in it he gains his first and best lessons in practical obstetrics and in the diseases peculiar to woman. It is in this general practice he first encounters the one among many gynecological difficulties, that of rational diagnosis."—*National Medical Review.*

The Discomforts of an Albino.—An autobiographic chapter of the recently published life of Lord Sherbrooke (*British Medical Journal*) gives an interesting, although not altogether accurate, account of his sufferings as an albino, a misfortune which he shared with an older sister. His description is as follows: "The peculiarity of my eyes consists in the total absence of coloring matter; this occasions, of course, especially in a man, a very marked peculiarity of complexion, amounting in early youth to something of effeminacy. For this evil, however, I have found age a sovereign cure; but as the absence of coloring matter extends to the eye, it necessarily occasions a great impatience of light. The eyelids must always be nearly closed, and so I have never been able to enjoy the luxury of staring anyone full in the face. Of course this intolerance of light must be attended with something very closely approaching to pain. I cannot even conceive the state of a person to whom sight is a function free from all pain and distress; but as I have no standard to measure by, I may exaggerate my own misfortune. The cause of this annoyance is the total absence of what is called the pigmentum nigrum, the dark rim which surrounds the pupil of the eye and absorbs the rays of light which are not needed for the act of vision, and only confuse and disturb it. But, in addition to this defect, I had to contend with a malformation of the eye; one eye has never been available to me for reading, and the other was hypermetropic—that is, the refracting power was so slight that the focus must be very near the back of my head. I began life, in fact, very much in the state of persons who have been couched for cataract, with the additional disqualifications that I had only one eye to rely upon, and that had no pigmentum nigrum to protect it." This account is of interest as that of an educated observer without medical knowledge. The degree of "impatience of light," as Lord Sherbrooke rather aptly puts it, varies considerably in albinos, and some are able to pursue ordinary avocations with comparatively little discomfort. The absence of pigment referred to by Lord Sherbrooke, is not, of course, confined to the "dark rim surrounding the pupil," but extends to the whole of the uveal tract, iris, ciliary body, and choroid, and this absence renders the iris more or less diaphanous.

Inspection of Emigrants at Liverpool.—The New York *Sun* says that Dr. H. L. Williams, United States Inspector of Emigrants at Liverpool, is being denounced in the local press for the undue severity of his methods, from which it may be reasonably assumed that he is doing his duty to his Government. The Liverpool Poor Law Guardians, at a recent meeting, declared that Dr. Williams turned back from the Etruria, as suffering from small-pox, a man who had that disease in December last, and was discharged from hospital as cured in January; but the doctor denies this. At the same meeting an unconscious compliment was paid to Dr. Williams and his assistants by the sorrowful admission that, owing to stringent inspection, scarcely any attempts were now made to smuggle undesirable emigrants off to America, and that even the shipping companies had become exceedingly cautious. The Government has called for a return from the port authorities of persons made chargeable to the Poor Law Guardians in consequence of the American emigration regulations. It is believed the number of such cases is very small.

Diagnosis of Hysterical Epilepsy by the Urine.—Dr. Gilles de la Tourette, writing in a Belgian journal, urges surgeons before operating on epileptic patients to make a careful examination of the urine. He states that by that means a diagnosis can be made between partial hysterical epilepsy and partial epilepsy due to a neoplasm; for, according to researches made by him in conjunction with Dr. Cathelineau in Professor Charcot's clinic, when the epilepsy is due to a tumor there is a marked increase during the fit in the urea and the phosphates, while in hysterical epilepsy these bodies are excreted in smaller quantities than usual during the attack.

Biborate of Soda in Epilepsy.—This remedy, first recommended in this country by Dr. Gowers, has been subjected to an extended trial by Dr. Mairet. He finds that toxic effects are produced, such as gastric disturbance, œdema of the extremities, loss of hair, conjunctivitis, etc., in nearly all the cases. He recommends small doses to begin with—from eight to fifteen grains daily—gradually increased to sixty or seventy. His maximum dose was from one hundred and fifty to one hundred and eighty grains daily, but when the attacks are not affected by one hundred and twenty grains daily no good is to be obtained from the remedy. After the effective dose has been reached the quantity should be gradually reduced. The mental state he found not to be affected, even with pro longed administration, but he did not consider that the good effects were sufficient to outweigh the disadvantages of the remedy.

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Original Articles.

REPORT OF A CASE OF SARCOMA OF THE CERVICAL SPINAL CORD; AUTOPSY.

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Cases of sarcoma of the spinal cord are of such unusual occurrence that it seems desirable to make a report upon the following instance of this condition, in which a careful record of the clinical history is supplemented by an examination of the spinal cord.

R W——, aged 29, single, merchant, resident of Long Island, was in good health until the beginning of the present illness, barring occasional attacks of chills and fever, and during the past two or three years repeated and prolonged colds, which ended in cough lasting several weeks. The patient has never used alcohol even in moderation, and it is stated by his father that his habits have been in every respect exemplary. The family history is quite negative.

The first evidences of the present trouble appeared about May, 1891. At this time the patient noticed a loss of sensation, beginning as numbness, in the ulnar side of the little finger of the right hand. This sensory loss soon extended to the entire little finger and thence to the ring finger and ulnar side of the middle finger. At the same time there was an upward extension of anæsthesia along the hand. Three months from the onset the anæsthesia had passed up the ulnar side of the forearm and arm, and had reached outward over the hand as far as the thumb.

Soon after the sensory loss made its appearance the patient began to have pain in the ulnar side of the right forearm and hand—slight and occasional at first, later very severe and of increased duration.

After the anæsthesia and pain had become established, loss of power was observed, first in the flexors of the finger, then in those of the forearm. The loss of power increased rather rapidly in degree and extended gradually up the right arm. About five months after the first symptoms were noted there developed atrophy of the first dorsal interosseus. Soon after, the muscles of the thumb and of the hypothenar eminence began to undergo wasting. The atrophy gradually became very pronounced in these situations and extended to the flexors of the forearm. The pain referred to above increased gradually in severity until about the eighth month from the commencement of the symptoms. At this time the patient noticed that the muscles of the right arm and forearm were very stiff, and interfered with the movements produced by the action of the unparalyzed muscles. The period during which the pain was at its height, and the arm was the seat of pronounced rigidity, lasted about six weeks. The pain then abated very much and was subsequently a distinctly less marked feature of the disease. During the period of severest pain the entire right arm became œdematous The œdema was exceedingly variable in degree, being at times pronounced, at others slight. The degree of œdema was not observed to bear any definite relation to the severity of pain.

A careful physical examination was made in June, 1892, about thirteen months after the beginning of symptoms. The patient was noted to be a man of medium height and slight build, and considerably emaciated. The right arm hung flaccid from the shoulder, apparently powerless. Upon effort it was possible for the man to abduct the arm slightly. No other motion was possible in the arm. Passive abduction of the arm to the horizontal position was impossible, owing to a rigid contracture of the pectoralis major and the muscles at the back of the shoulder. The fingers of the right hand were in extreme flexion, and the wrist was flexed upon the forearm. By making extreme passive flexion of the wrist the fingers could be slightly extended from their cramped position. The wasting of the right arm was very conspicuous. The muscles of the thumb and little finger and the interossei were greatly atrophied. The right forearm in the middle one-third was one inch smaller than the left at the corresponding level. In its lower third the right forearm was one-half inch smaller in diameter than the left. The upper arm was about one-half inch smaller in diameter. The right deltoid showed slight wasting.

The electrical examination showed loss of faradic irritability in the right arm, in the deltoid, biceps, triceps, and all the extensors and flexors of the wrist and the interossei. Very slight irritability remained in the supinator longus.

Tactile and pain sense were entirely lost along the ulnar border of the arm to the axilla, and were greatly impaired along the radial border as high as the shoulder. Temperature sense was only roughly tested. It appeared to be quite lost in the arm. There was almost entire loss of the muscle sense in all the muscles of the right arm. The patient had no sense whatever of the position of the fingers, hand, and forearm.

The surface of the right arm was much colder than that of the left. It was pale in color. From time to time there was considerable pain in the right shoulder.

In the left hand and arm, power and sensation were apparently normal. The grip seemed a little weak, but this may have been owing to the patient's debilitated state. Both legs were a little weak, and about equally so. Sensibility in the legs was normal, and there was no complaint of pain. Equilibrium was maintained without any difficulty, except the oscillation due to rapid fatigue. The knee-jerk was much increased upon both sides, but the exaggeration was most pronounced on the right side. Ankle-clonus was readily obtainable upon both sides, but was more prolonged upon the right.

The power of the sphincters was unimpaired.

It was apparent on inspection of the patient that the head was fixed rigidly upon the shoulders, inclined slightly to the right side and rotated somewhat to the left. Passive movement of the head in any direction caused pain in the shoulder and arm. There was no vertebral deformity and no tenderness on pressure over any of the cervical or upper dorsal spines.

The heel and toe test did not cause pain in the neck.

The movements of the tongue and lips were normal. Sight was unimpaired. The right palpebral fissure was distinctly smaller than the left, and the right lid drooped a little. The pupils reacted normally to light and during accommodation. The right was a little smaller than the left. When the patient reads, the right eye waters so freely that he has had to give up reading.

During the winter of 1892 the patient received a single hypodermatic injection of morphine of unknown strength. He states that this was followed in about fifteen minutes

by numbness in the entire right side of the body, including the head. This condition of numbness persisted for one month, and the patient thinks the contraction of the right pupil, the drooping of the lid, and the watering of the eye date from the time of the injection.

An examination of the chest showed dulness on percussion over the upper part of the right side. The vesicular murmur was weak over the right chest in front and behind, with expiration prolonged. A few subcrepitant râles could be made out upon the right side over the upper chest.

Temperature 101°, pulse 100, respiration about thirty per minute.

In the course of two weeks after the examination recorded above, the right leg became much weaker than before, and pain and numbness extended gradually down the entire left arm. Two weeks later considerable loss of power was detected in the left leg. There was also noted slight tactile loss below the knee. About this time the patient developed temporary retention of urine, and the already existing constipation became more pronounced. There was developed in the right arm pronounced œdema, associated with considerable pain. After a week these symptoms passed gradually away. On July 24, 1892, that is, about a week after the subsidence of the pain and œdema just noted, there was observed a tense swelling over the outer end of the right clavicle and extending down into the axilla over the front of the shoulder.

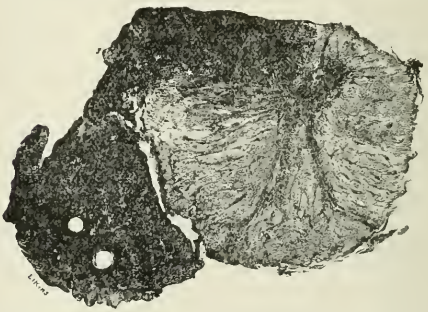
In the course of two weeks this tumor grew to the size of a child's head, became very tense, and was covered by greatly distended veins. The patient now grew rapidly worse. Incontinence of urine and fæces set in, and breathing became labored owing to paralysis of the thoracic muscles. It was observed at this time that total loss of sensibility extended as high as the crest of the ilium upon both sides, and that sensibility was greatly impaired bilaterally as high as the third rib. Unfortunately, no detailed studies of sensibility were made at this period. Large bedsores now appeared, and on September 12, 1892, sixteen months after the beginning of symptoms, the patient died from exhaustion and respiratory failure.

Autopsy.—The autopsy was a partial one. The right chest was opened, and from it were obtained a mass from the clavicle and another from the upper and posterior part of the thoracic wall. The upper part of the right lung was displaced by a number of tumors which occupied the posterior and inner aspects of the right upper chest. Some of those masses appeared to grow from the clavicle, others from the vertebræ, but their relations could not be distinctly made out. The following pathological report is by Dr. C. A. Herter, of New York, who saw the patient in consultation:

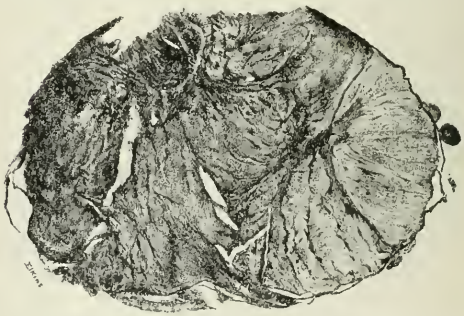
The specimen obtained from the spinal cord was five inches long, and extended from the eighth cervical to the seventh dorsal segments, both inclusive. On the right anterior aspect of the upper end of the specimen is a mass, one and three-sixteenth inches in vertical extent and one-half inch transversely, extending downward beyond its attachment to the cord. The mass is firm in consistence, and encloses the right anterior nerve-root of the eighth cervical segment. Unfortunately, the uppermost part of the tumor was not obtained. Sections were made from the eighth cervical, and first, second, and third dorsal segments. The degree of encroachment of the tumor upon the cord at the level of the first dorsal segment is shown in the accompanying photograph. It is seen that the tumor involves at this level nearly the entire right half of the cord, and encroaches anteriorly upon the left anterior column of the cord. Posteriorly, it does not pass quite to the posterior horn. At the level of the eighth cervical segment the size of the tumor in transverse section is about the same as at the first dorsal level, and the area of cord involved is approximately the same. At the second dorsal level the invasion of the cord by the tumor is limited, in gross appearance, to the right anterior half of the cord. The tumor does, however, extend across the median line by way of the commissures as far as the inner border of the anterior horn of the left

side. In the third dorsal segment the cord again presents a normal appearance.

In structure the tumor is an exceeding vascular spindle-celled sarcoma. Unfortunately, its exact relations to the membranes of the cord cannot be made out. It appears to have extended to the pia of the right side from the nerve-roots of the eighth cervical segment, and from the



pia to the right half of the cord and to part of the anterior columns of the left side. The nervous structures included in the right half of the cord are all but obliterated; all that remains of nerve-elements is a small number of partially or completely degenerated nerve-fibres, scattered irregularly through the tumor tissue.



On the left side of the cord, at the level of the eighth cervical and first dorsal segments, the anterior horn is contracted from side to side and contains no normal ganglion-cells. In the second dorsal segment a few ganglion-cells have escaped damage, but even here the great majority have undergone partial or entire destruction. In some instances the ganglion-cells have been apparently replaced by small groups of spindle-shaped

connective-tissue cells, connected with the anterior horn by large vessels extending along the thickened connective-tissue septa to the periphery of the cord, where there lies a layer of fibrous tissue between the substance of the cord and the pia, infiltrated and thickened with small spheroidal cells. The anterior horn itself is supplied with vessels excessive in size and number, and surrounded with abundant nuclei. It is evident from the appearances that the extension of inflammation to the anterior horn has been in part along the vessels radiating from the periphery, in part from direct extension along the gray commissures from the tumor upon the right side. It is interesting to note the preference of the foci of inflammation for the more vascular gray substance. There is no evidence of secondary myelitis about the tumor, except the appearances just noted, which are probably in some manner connected with the extension of the growth itself. Sections below the tumor give no evidence of secondary degenerations.

Sections made from the masses obtained from the clavicle and thoracic wall show them to be fibro-sarcomata.

Observations.—In the foregoing case the relation between the symptoms and the pathological findings is sufficiently plain.

The earliest symptoms in the case were pain and anæsthesia in the ulnar side of the right hand. These symptoms may safely be referred to the partial destruction and irritation, by the tumor, of the right eighth cervical nerve, probably in the intervertebral foramen or just external to it. The loss of power and atrophy in the muscles of the hand and forearm are referable to the further invasion of the nerve-roots of the right side of the eighth segment, and to the invasion of the gray matter of the cord at and just above this level. The ultimate diminution in irritative symptoms in the right arm, especially pain and rigidity of the muscles, correspond to the stage of the invasive process where irritation is replaced, through further growth of the tumor, by an essentially destructive condition. The involvement of the leg upon the same side as the arm is referable to the extension of the process to the lateral column of the cord. In giving this explanation we are assuming that the neoplasm, in extending to the cord, developed with preference in the gray matter. This view is justified by the evident preference for the gray substance seen upon the left side of the cord, where the morbid process is just invading the anterior horn.

The loss of power which, late in the course of the process, extended to the left leg and to a less extent to the left arm, may be regarded as depending not upon the actual invasion of the left half of the cord by the sarcoma, but upon the pressure to which this part of the cord was plainly subjected by the growth of the tumor upon the right side. In evidence of this we may call attention to the reduced size of the left cord, and especially to the very close approximation of the two posterior horns. Further, the foci of inflammation in the left anterior horn, to which allusion has been made, do not explain the total absence of ganglion-cells from the anterior horn at the level of the tumor. This loss is most reasonably to be regarded as the consequence of impaired nutrition of the gray matter in its most differentiated elements, this being in turn the effect of lateral pressure.

The marked œdema of the right arm is a symptom of interest, especially as it does not appear, judging from the records of cases, to be of very frequent occurrence in tumors of the cervical cord. It seems probable that it depends upon implication of vaso-motor paths in the central gray matter, as suggested by Remak in the case of syringomyelia.

The contraction of the pupil and of the palpebral fissures upon the side of the tumor is to be explained as the consequence of paralysis of the dilator sympathetic fibres that are thought to originate in the lower cervical and upper dorsal cord. The drooping of the lid doubtless depends upon relaxation of the fibres of Müller.

These ocular symptoms appear to be not infrequent in cervical cord tumors. They have been often noticed by Thorburn in crushes of the cervical cord. Where the cord is bilaterally injured the ocular symptoms are correspondingly bilateral. I have met with unilateral ocular symptoms in a case where one side of the cervical cord was crushed and the other only slightly damaged. There is good reason to believe that the symptoms require for their production a considerable degree of damage to the gray matter of the cord.

Regarding the diagnosis in the case recorded, it may be said that the anatomical diagnosis presented no difficulties. The indications were those of a focal process involving the right half of the cord in the region of the eighth cervical segment, and extending a short distance above and below this level. The pathological diagnosis was made with hesitation. The presence of signs of consolidation, muco-purulent expectoration, hectic temperature, rather rapid emaciation, and night sweats all suggested a tubercular process, and the diagnosis of a secondary tubercular tumor of the cord was thought to be justified. The alternative diagnosis was sarcoma, but it must be owned that this appeared improbable. An examination of the sputum would probably have settled the question, but was unfortunately not made. As the pathological diagnosis was incorrect, I have been stimulated to inquire whether the sarcomatous processes of the cord present any peculiarity in their history that would perhaps aid in future distinctions from tubercular processes. A comparison of twenty-six cases, collected from the literature of sarcoma of the spinal cord, with cases of massive tubercle of the cord, brings out a number of facts, some of them of practical interest. The clinical histories in many of the cases are imperfect, and care has been taken not to draw more positive conclusions than the facts at our disposal will permit. The following conclusions appear to be warranted by the facts:

1st. Sarcoma of the spinal cord occurs with about equal frequency in the two sexes. Of 26 cases 14 were in females, 12 in males.

2d. Sarcoma of the spinal cord is essentially a disease in adult life. Of 21 cases only 2 occurred before the twentieth year, at eighteen and sixteen; 5 occurred between twenty and thirty; 6 between thirty and forty; 6 between forty and fifty; 1 between fifty and sixty; 1 case occurred at seventy-one. Thus of the 21 cases 17 are found between the twentieth and fiftieth years.

Massive tubercle of the cord, on the contrary, is a disease of adolescent and early adult life, 15 of 24 cases having occurred between the fifteenth and thirty-fifth years, and 5 more before the fifth year. This fact may sometimes aid in diagnosis, for, other indications being balanced, sarcoma is much more probable than tubercle after thirty-five, while tubercle is much more probable than sarcoma before the twentieth year.

3d. **Etiological Factors** in the production of sarcoma of the spinal cord are practically unknown. In one case only does an injury, a fall upon the ice, appear to have exerted any influence; even here the influence may be questioned. In this case (Fischer) the sarcoma, which was of pial origin, extended almost the entire length of the cord. In the causation of tubercle, likewise, injury appeared to exert no effect.

It is of some interest to note that in three cases of sarcoma the first symptoms made their appearance during pregnancy. This occurred in the cases of Macalester, Glaser, and Attelmeyer. In a fourth case, that of Stavridis, symptoms of tumor came on during pregnancy, but the case cannot properly be admitted, as there was no autopsy. It is of course possible that the blood-state of pregnancy is favorable to the development of tumors of the connective-tissue type, but in thinking of the significance of the appearance in sarcoma during pregnancy it is well to bear in mind the possibility of mere coincidence, for sarcoma occurs at the period when a considerable proportion of women are pregnant.

4th. Most cases of sarcoma of the cord occur in the

dorsal region. The cervical region appears to be more often involved than the lumbar. In several cases the new growth extended nearly the entire length of the spinal cord.

5th. It is exceedingly difficult to obtain from literature the facts necessary to establish a full symptomatology. Results obtained in this way are usually labored, and the present instance would prove no exception to the rule. Certain facts, however, stand out clearly. In the first place, pain was the earliest and most prominent symptom of the process in about four-fifths of all the cases in which there is a reasonably full record of the symptoms. In a small minority of cases it appears that numbness or hyperæsthesia or weakness has preceded pain by a short period. The situation of the pain has, of course, varied with that of the new growth. When the tumor has begun in the cervical or lumbar enlargement the pain appears to have been referred especially to the corresponding extremity, though in some cases it was referred to some extent or chiefly to the vertebræ. Regarding the character and duration of the pain, the records are not sufficiently explicit to enable an opinion to be formed.

It may be assumed, however, with considerable confidence, that the pain was usually severe and prolonged, though intermittent. In solitary tubercle of the cord pain is an early and prominent symptom, but there is reason to think that it is ordinarily less severe and of shorter duration than in sarcoma.

Speaking generally, the early symptoms of sarcoma are mainly of an irritative and not of a destructive nature. This depends on the fact that the tumor commonly grows slowly from the pia, and produces symptoms that are chiefly meningeal at first, with little compression. Later the tumor involves the cord substance, and destruction takes the place of irritation. It is unnecessary here to dwell upon these symptoms, as they are well understood, and the study of these cases of sarcoma throws no new light upon them. If we compare the character of the symptoms in sarcoma with those of massive tubercle of the cord, we cannot fail to be struck with the much greater prominence of the destructive cord symptoms in this latter condition; a high degree of paralysis and anæsthesia is reached much earlier in the course of tubercle than in sarcoma.

And here we come to one of the most striking differences between the two conditions. In sarcoma the course of the disease is in general much slower than in tubercle. The cases of tubercle collected by Dr. C. A. Herter, in 1890, ran their course in a few months—usually about three months from their commencement. Of 20 cases of sarcoma of which the duration is given, 4 ran their course in less than one year, and of these, 2 are said to have lasted less than six months (1 about three months); 11 of the cases lasted from one to three years; and of the remaining 5 cases, 2 lasted six years, 1 thirteen years, 1 sixteen years, and 1 an unknown number of years. The average duration of the condition may therefore be set down as from one to three years.

It is hardly necessary to say that the symptoms were in almost every instance unilateral at first. This was true also of the cases of tubercle, but in the tubercular process the extension to the other side took place at a much earlier period.

In all of the cases from which the preceding conclusions have been drawn, the diagnosis was confirmed by autopsy. Cases of glioma of the cord have been excluded. Three cases were instances of fibro-sarcoma (Attelmeyer, Ledyard, and Bulteau), one was a central angio-sarcoma (Glaser) extending the length of the cord, in one there were multiple angio-sarcomata (Cramer), and in another case the tumor was an alveolar sarcoma.

It affords me pleasure to acknowledge my indebtedness to Dr. C. A. Herter, of New York, who has carefully gone over the case with me and rendered valuable assistance.

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ABSCESS OF THE LARYNX.

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Abscess of the larynx is generally acknowledged by authorities to be divided into perichondrial and idiopathic. The former is so well known in connection with specific and tubercular affections that nothing need be said of it at the present time, except to refer to one case, which, on account of its unusual character and abruptness of termination, renders it worthy of notice.

On July 14, 1892, I was summoned, in consultation, by Dr. Miller, to see a man, about fifty years of age, suffering from dyspnœa. Family history tuberculous. Three brothers were said to have died of consumption—two of them of consumption of the throat.

No history of specific disease. For years had been subject to sore-throat from colds. These would pass entirely away sometimes. In the latter half of June, while visiting, had slept in a damp bed. This was followed by acute laryngitis, from which he had not recovered. During the last week dyspnœa had been severe, but was not attended by marked dysphagia.

Examination. — Patient tall and spare, but fairly strong, and able to walk about freely. Inspiration long, difficult, and stertorous. Expiration shorter and easier. Voice not much affected, but harsh. Pharynx normal; but with the laryngoscope larynx proved to be œdematous, particularly the ventricular bands. They were pearly and translucent. Vocal cords almost hidden by the œdema. What slight parts could be seen were congested and infiltrated. The whole bathed in a light serо-purulent exudation.

Externally there was no swelling whatever, and no marked tenderness over the region of the larynx. On this single examination it was impossible to positively diagnose abscess. My own impression was, that it was a case of tuberculous œdema; but I was surprised at the complete absence of ulceration. The indications seemed to be either for scarification or tracheotomy; but as the impression, both of patient and friends, was that he was easier than in the early part of the day, I merely brushed the ventricular bands with a preparation of cocaine-menthol, leaving a spray to be used when required, with the understanding that I was to be summoned at any time if operation became necessary.

The following day, the 15th, his physician telephoned me that he was a little easier, and down-stairs most of the day. On the morning of the 16th a second telephone message announced that he was dead. The doctor had been hastily summoned. He obeyed the call immediately, but when he arrived the patient had expired.[1]

[1] Case reported, and pathological specimen exhibited, to Toronto Medical Society, October, 1892.

I assisted Dr. Miller in the post-mortem examination of the neck. There was neither external swelling nor discoloration. In dissecting the skin back from the thyroid and cricoid cartilages the scalpel accidentally cut into lower left margin of crico-thyroid membrane, followed immediately by exudation of yellow, odorless pus. After removal of the larynx the epiglottis proved to be free from œdema; while the supra-glottic portion was enormously œdematous, completely closing the cavity. This was lined with muco-pus, quite different, however, in color and consistency from the pus already mentioned. The color of these parts was of a translucent serous character. The trachea was without œdema, and free from pus. On cutting down the centre of the back of the larynx, severing the cricoid cartilage, the abscess was fully opened. It formed a cavity beneath the perichondrium of the front of the posterior and left half of the ring, extending partly to the right, but chiefly to the left, penetrating a little over the posterior surface of the left ala of thyroid, and down, as already noticed, to the cricothryoid membrane, completely raising without breaking the epithelial coating.

The patient undoubtedly died of apnœa from complete stenosis, produced by the pressure of the abscess beneath the vocal cords, and the œdema of the ventricular bands above.

Dr. Acheson kindly examined both the cartilage and the pus with the microscope, for tubercle bacilli, with an entirely negative result.

Idiopathic Abscess of the Larynx.—Of this second and rarer variety Richards, in the *International Journal of Medical Sciences* for 1890, records twenty-six collected cases, besides the thirteen previously reported by Sir Morell Mackenzie. In 1891 Irsay, of Buda-Pesth, reported one also; and Milligan, of Manchester, read an account of another, before the British Laryngological Association, in March, 1892. These forty-one cases are all of which I can find a distinct record.

The large majority have occurred between the ages of twenty and thirty years; and the frequency has been greater in males than females. In more than half the cases there was no definitely "known cause." In adults either cold or wet, or drinking cold water, has been supposed to be the chief factor; while in children infectious diseases has seemed to be the preponderating cause. In a large number of cases the abscess was small and well defined; but sometimes it involved the greater part of the larynx. Œdema, too, was a general concomitant, affecting to a marked degree the side of the larynx to which the abscess was confined.

With regard to position of the abscess: In six of Mackenzie's cases it was situated in the base of the epiglottis, in four in the ventricular bands, and in the remaining three in the ary-epiglottic folds. In Richards's cases the locality was more varied—six in base of epiglottis, six in subglottic region, three in ary-epiglottic folds, three in vocal cords, three in mucous surface of thyroid cartilage, two in arytenoids, two in pyriform sinus, and one in ventricular band. In Irsay's case it was situated in the left arytenoid, and in Milligan's, over the external surface of the right thyroid ala, and pointing internally to the laryngeal surface of right side of epiglottis.

Prognosis in children has been very unfavorable, and the same in adults where operation has not been accomplished. In children the death-rate with and without operation has been sixty-two and one-half per cent., or five out of eight. In Rilliet and Barthez's adult case death occurred before the abscess was fully formed. In Berger's, after two days' slight dyspnœa the symptoms became intense, and patient died the same evening. In Doring's, a soldier, complaining of slight pain in the throat, went on parade about noon, and died of laryngeal stenosis at 5 P.M. of the same day.

In treatment the necessity of opening is very marked, as out of ten cases reported by Richards as unopened nine died; while out of ten cases operated upon only one died. The imperative call for immediate use of the knife is also illustrated by the following case, which recently came under my observation:

W. H——, aged thirty-two, a bookkeeper, and enthusiastic la-crosse player, tall and athletic, spent the evening of June 27th at his club, arranging for a crack match to be played on July 1st. He felt quite well all evening and retired to bed about midnight. At 3 A.M. of the 28th he awoke with soreness of throat and difficulty of breathing. By daylight the symptoms had increased in severity, and a doctor was summoned. Not obtaining relief he was referred to me, and driven in a carriage to my office at noon, nine hours after the first symptoms of dyspnœa. At this time it was quite impossible for him to swallow. Breathing difficult and stertorous. Skin cool and clammy. There was no swelling of external neck, and only slight soreness on pressure. The pharynx was unaffected.

Examination with Laryngoscope.—Epiglottis very much swollen and red, completely hiding rest of larynx from view. In the centre of left side of laryngeal surface there was considerable bulging, and the mucous membrane was paler in hue. Patient said that at this point the pain originated. After applying cocaine, I at once opened it with the laryngeal lancet, and out of it oozed several drops of pus. As this diminished the size of the epiglottis very little, I dipped the lancet into carbolic acid and scarified the posterior surface from below upward in two places. Bleeding was quite free, and enabled a vision of the arytenoids and ary-epiglottic folds to be obtained. These were œdematous, more particularly the right ary-epiglottic fold. This was contrary to the general rule, being on the opposite side to the abscess. I ordered hot poultices to the neck, hot steam inhalations, and hot drinks if he could take them. 4 P.M.—Came to office by agreement, in close carriage. Pus still oozing from left side of epiglottis; swelling somewhat less. Right side still swollen and red. Right ary-epiglottic fold larger and more œdematous than on first treatment. After cocainizing, scarified it with laryngeal lancet. Patient had been able to swallow a little. Treatment continued. Ordered cathartic of cascara. 10 P.M.—Was again driven to office for treatment. Left side of epiglottis more natural in size. No pus oozing. Right side swelling much as before. Right ary-epiglottic fold almost filling the larynx. Lanced the latter more freely than the first time. Free discharge of serum and blood, but no pus. Did not lance the epiglottis. Poultices discontinued, but hot drinks and steam inhalations as before. Also ordered glycerine and iron mixture to be taken every two hours.

June 29th, 9 A.M.—Patient again drove over. Had passed a fair night. Had swallowed a glass and a half of hot milk. Œdema of right ary-epiglottic fold much less. Left side of epiglottis shrunken; but right side pointing and lighter in color. Lanced the latter freely, and with cotton probe pressed out several drops of pus. From this time improvement was rapid.

July 1st.—All discharge has ceased. Ary-epiglottic folds were normal, and epiglottis almost so.

July 3d.—Patient's last visit. Although feeling weak his throat feels well and he has a voracious appetite. A few days later he resumed his ordinary avocation.

In this case the lancings were done at four different sittings, each time affording marked relief to the dyspnœa. The lancets were sterilized before each insertion, and although the epiglottis discharged pus so freely, the swelling of the ary-epiglottic fold remained throughout only œdematous.

37 Carlton Street.

The Price of Opium is steadily rising in consequence of a diminution in the area of cultivation in Asia. It is thought that the price on the London market will soon reach five dollars a pound, an advance of about fifty per cent.

THE PREVENTION OF DEAFNESS.

By CHARLES A. BUCKLIN, A.M., M.D.,
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This subject is worthy of attention because hearing is more frequently lost than any other of the special senses. If a general ignorance of the simplest principles of physics, as applied to the prevention of deafness, is, beyond dispute, the usual underlying cause of losing the hearing, then such an education on this subject as would enable the masses to recognize early the symptoms of approaching deafness, and the profession to appreciate the urgency of such symptoms, would be the way to prevent it.

Early recognition of the approaching ear disease and effective surgical treatment are the necessary factors for preventing incurable deafness. Very frequently the early symptoms of developing ear disease do attract attention and the family physician is consulted: the advice given at this period nearly always determines the fact whether the individual is to be deaf in the future or not.

The first warnings of the trouble are as follows: Frequently recurring colds in the head, annoying noises in the ears, an acute earache followed by a discharge which does not appear inclined to cease, thick voice, faulty articulation combined with mouth-breathing and annoying obstructions of the nostrils, all of these symptoms, if persistent, endanger the hearing and should receive serious consideration.

Patients annoyed by recently developed ear symptoms and seeking relief for the same occasionally meet men who are fully alive to the necessary surgical requirements; while at other times these patients encounter men who never make a complete examination, and who have a head-mirror, an ear speculum, a Politzer bag, and a galvano-cautery, and although they pose before the profession as specialists they only do for the patients what the most stupid people could do for themselves by applications of heat and repeated inflations of the middle ear. Then again these patients meet a "Don't-meddle-with-the-ear" class. If careful inquiry be instituted in this latitude it will be found that ninety per cent. of the inhabitants have had at some time of their lives some form of middle-ear disease.

A very large proportion of these cases can remember having had an acute earache, and give such a description as leaves no doubt of its having been an inflammation of the middle ear. Others do not remember such an attack, but upon inquiring of their family you will find someone who remembers all about it. Many will be encountered from whom no history of the attack can be obtained, still an examination of their ears demonstrates the previous existence of ear disease, although the hearing may be perfect at the present time.

If statistical evidence is to be accepted as the only standard in medicine, it naturally follows that no treatment is better than any treatment, because more cases get well without treatment. Hence the common statement, "Don't meddle with the ears." This statement has been further supported by certain means of treatment which have produced deafness in many cases that would have recovered if they had been left alone. For example, the use of the nasal douche; plugging the nostrils and allowing them to remain so for some time, which is a popular practice after a nasal operation; the introducing of the galvanic cautery and infected instruments into the nasopharynx; the ingenious idea of using bougies in the Eustachian tube; Adams's operation on the nasal septum, with the necessary subsequent treatment; prolonged, unskilled, and unnecessary manipulations in the nasopharynx—all these are means which, added to the statistical evidence above given, make the old doctors' motto, "Don't meddle with the ear," rather strong, but nevertheless dangerous.

This class of men have seen so many recover from ear trouble without treatment, or in spite of treatment, that they all live in a state of hopeful expectancy regarding their aural patients. But when the annoyance of the patient becomes unendurable and they at last consult some special man, he, as a rule, at this late date, can only inform them that organic structural changes have taken place in the ear and that the prospects are really very bad.

The unsatisfactory results obtained from special advice regarding ear disease of very long standing greatly discourage the profession from urging aural patients to seek relief.

It should be remembered that there is always a time when these incurable diseases of the middle ear are readily curable; but during this time these patients are usually waiting to see if they will not recover from natural causes.

Another very prominent cause why deafness is not prevented more universally is due to a want of thorough agreement among those who teach the profession regarding the treatment of diseases of the middle ear. Let them agree upon and teach a correct and uniform method of treatment for middle-ear diseases; teach the laity and the profession the necessity of giving threatening symptoms prompt attention and effective treatment, and the following generation will not be affected with deafness.

As the only diseases which play a very important part in producing deafness are those of the middle ear, and their direct and remote consequences, the following remarks will be confined to this one class.

The middle ear is practically one of the accessory sinuses of the nasal passages, subject to all the accidents which shut off the antrum, ethmoidal, sphenoidal, and frontal sinuses.

The symptoms arising from shutting off the middle ear are subject to great differences, owing to the fact that the cavity is closed from the external air by a simple drum-membrane and contains the mechanism necessary to transmit sound vibrations to a second cavity, containing the terminal filaments of the auditory nerve.

The conditions arising from the closing of this accessory sinus, called the middle ear, give rise to what is known as middle-ear disease.

The middle ear is without doubt more frequently shut off than any other accessory cavity of the nasal passages. This is due principally to the pneumatic conditions which exist alone in the middle ear.

It is absolutely necessary that the air shall at all times circulate freely from the nasal passages to the middle ears, otherwise the function of hearing is immediately compromised. The moment the air behind the drum becomes rarefied below the normal atmospheric pressure, to which the outside of the drum is constantly exposed, hearing is instantly greatly reduced.

Sucking the air from a toy drum and placing the finger instantly upon the vent destroys the musical tone of the drum as quickly and completely as rarefied air in the middle ear destroys the hearing.

The entrance of the Eustachian tube into a membrane which readily swells, and at a point sufficiently far back to be affected by all abnormal nasal conditions as well as efforts of swallowing, is a further cause which favors this sinus being so frequently shut off.

When the conditions are such that a constant partial vacuum in the middle ear is maintained, the vessels commence to congest because they are under less than normal atmospheric pressure. This is the starting-point of the disease which produces ninety-five per cent. of all the deafness in the world.

The suggestions as to the probable manner in which diseases of the middle ear most frequently start will be duly defended.

Diseases of the Middle Ear.—The eruption of essays, during the last twenty years, based each on a thousand cases, more or less, has been very prolific.

Each author appears to have demonstrated his peculiar conclusions to his own satisfaction, and yet there is no certainty or uniformity in the conclusions of any of them.

I have one of these essays before me which, while good, is a fair sample of the use that has been made of such sta-

tistical work in deciding how a congestion, inflammatory infiltration, or hypertrophy of the naso-pharyngeal mucous membrane produces middle-ear disease.

The statement is thus: "The development of the inflammations of the tympanum from nasal and pharyngeal affections has been explained in three ways. First, by the direct extension of the inflammatory process by continuity of tissue; second, from rarefaction of the air in the post-nasal space and tympanum during inspiration due to nasal stenosis; third, from obstruction of the mouths of the Eustachian tubes by adenoid vegetations. My own belief is, that it is always due to the first cause and never to the other two."

The fact that this essay is based on the personal observation of a thousand cases should, as in the case of all essays of its class, strengthen whatever logical conclusions the author arrives at. It is not probable, however, that the conclusions quoted above could be supported for ten minutes with the author himself as a jury.

Let us inquire. While the theory that inflammation extends from the membranes of the naso-pharynx to the cavity of the middle ear by continuity of tissue is a very plausible one, it is an exceedingly difficult one to demonstrate, because the following is what takes place previous to the time it is possible for the inflammation to extend.

A cold in the head causes the mucous membrane of the pharyngeal end of the Eustachian tube to become swollen. Rarefaction of the air in the naso-pharynx, the result of moderate obstruction to nasal respiration, frequently produces the congestion in the head, but it does not, as many authors state, rarefy the air in the middle ear. It simply places a condition similar to a valve in the Eustachian tube, which allows the air in the tympanum to be exhausted by efforts of swallowing and mastication without allowing the pressure to return when the exhausting power is inactive. If this condition always takes place before the inflammation can extend, and is sufficient to produce suppurative or non-suppurative inflammation of the middle ear, how is it possible to demonstrate the part that extension by continuity of tissue plays in the inflammatory process?

While suffering from an acute attack of rhinitis I have been, during the act of swallowing, gaping, or masticating, instantaneously seized with a loud roaring in the ear and great reduction of hearing. When inflating the ear the noise has ceased and the hearing has returned; within an hour the phenomenon was again observed, whereupon a spray of two per cent. of cocaine through the naso-pharynx, followed by inflation of the ears, caused the annoying symptoms to disappear permanently.

Had the rhinitis been due to causes which precluded its being relieved by such simple means, or from recovering in the usual time the average rhinitis, due to temporary causes, usually does, or had I been unable to overcome this congestion of the nasal cavities by any means, I certainly would have developed inflammatory disease of the middle ear, with defective hearing, and no one would have been able to demonstrate that my ear became inflamed by direct extension of the inflammatory disease from the pharynx.

It may, however, be shown that this trouble was developed without any extension of the inflammation to the middle ear, and as a direct result of reduced air-pressure in the tympanic cavity, because the hearing was perfect when the normal air-pressure was restored to the middle ear.

The majority take it for granted that many of the acute infectious diseases extend to the middle ear, and that this is the probable way in which the middle ear becomes affected. This is considered especially so in diphtheria. It certainly looks plausible, but even this form of extension of inflammation is difficult to demonstrate.

Some years ago, while passing through a serious attack of nasal diphtheria, I suddenly developed very severe pain in one ear, with inability to hear a watch except upon contact.

The hourly use of hot water in the ear during wakeful hours, continuous use of the hot water bag, very frequent disinfectant sprays through the nose, followed each time by inflation and rigorous constitutional treatment brought the acute inflammation of the middle ear to a recovery within seven days without suppuration and with perfect hearing.

I cannot imagine it possible that a truly diphtheritic inflammation of my middle ear had taken place, as I recovered so quickly and so perfectly, and without any suppuration. It must have been a very mild attack of simple inflammation of the middle ear.

Most of the middle-ear complications following diphtheria, that I have seen, have been suppurative. Occasionally the defective hearing resulting from diphtheria is the result of a paralysis, and sometimes proves permanent.

Those authors who do not believe that the pneumatic conditions of the middle-ear are so closely allied with the development of its diseases, but rather lean to the theory of extension by continuity of tissue, should also consider the following points:

Suppuration in the middle ear is more frequent than in all the other sinuses and cavities of the body taken together.

Why does not extension of inflammation by continuity of tissue produce suppuration as frequently in the antrum, frontal, ethmoidal, and sphenoidal sinuses? These diseases, as compared with suppurations of the middle ear, are rare.

It is impossible to avoid the necessary logical conclusion that the middle ear is an accessory sinus of the naso pharynx, which becomes frequently inflamed because it has an opening covered by a highly elastic drum-membrane that is exposed to the external air, thus making it the only sinus in which, when its opening is swollen, the air can be rarefied by swallowing, gaping, and mastication.

When a swollen condition of the mucous membrane, into which the Eustachian tubes enter, exists, they become so obstructed that the air exhausted cannot return to the middle ear, and a constant vacuum is consequently maintained therein.

We have no reason to believe that direct extension of inflammation to the middle ear takes place any more frequently than it does in any of the other accessory sinuses.

It is difficult to demonstrate that direct growths compress the opening of the Eustachian tube, but this undoubtedly happens. A fibroma or sarcoma favorably located will surely close the tube by direct pressure.

More extended observations will certainly bring to light some such cases.

Otologists as a class, for the past fifty years, have been disposed to treat the symptoms called middle-ear disease, rather than the causes, which are hyperæmia or hypertrophic conditions of the mucous membrane of the naso-pharynx, and tumors and deformities of the nasal passages.

They have had very good success in a fair proportion of cases, while in many others they have made flat and unnecessary failures.

As I think that the average specialist with equal experience has made no more mistakes in this direction than your humble servant, my readers will excuse me for speaking very pointedly of the many mistakes that are constantly being made.

A careful diagnosis, an intelligent prognosis, and great care not to overlook any existing complications are the three elementary factors for successful treatment of middle-ear diseases, as I will illustrate further on by clinical cases.

The routine practice for acute, subacute, and chronic non-suppurative disease of the middle ear is to employ forcible inflation, and wait for the rhinitis to subside, which it very often does. Attempts are also frequently made to reduce the rhinitis by the application of astrin-

gents to the naso-pharynx, which is also frequently successful. The number of cases, however, where neither of these methods can be successful are innumerable, and still the routine treatment is resorted to and persevered with in such cases.

Suppurative disease of the middle ear should be treated on the same general surgical principles that are employed in suppuration in other parts of the body.

Thorough cleansing and draining (which here also means forced inflation through the Eustachian tube) hot water through the external ears, disinfection, astringent solutions, and the rational consideration of any constitutional trouble, constitute the early requirements for treatment. When there are decided complications in the naso-pharynx the suppurative disease of the ear will usually be recurrent until these complications have been removed. The recurrence resulting from the exposure of the cavity of the middle ear direct to external atmospheric changes, as a result of extensive destruction of the drum-membrane, can be overcome by some simple form of protection, as cotton in the ear, when exposure makes it necessary. Recurrence from these causes is, however, over-estimated. Later sprouting granulations, called polypi, are to be removed. Symptoms indicating confined pus or dead bone in or about the middle ear should receive prompt attention, as they are very serious, and occasionally require active surgical treatment.

In all forms of middle-ear disease it appears that the cause of the congested pharynx is the first important element in deciding on the nature of the treatment.

The secondary connective-tissue changes, resulting from a long-continued inflammation in the middle ear, make very old cases amenable to no form of treatment.

At the present day there is certainly no excuse for following a routine line of treatment in diseases of the middle ear. With an intelligent examination, a rational prognosis can be given, and appropriate treatment selected at the start.

The following cases will illustrate some of the common mistakes which are being made constantly.

Case I.—Mrs. S—— came to me one afternoon with a child about two years of age, who had a profusely discharging ear. She said she was completely discouraged. The child had been some ten weeks under the care of one of the most prominent otologists, who had treated the ear just as I should have done had they come to me first, namely, inflating the ear, cleansing it, and insufflating boracic acid. I examined the nasal passages and pharynx, and I found nothing to tempt any rhinologist to operate.

I felt as discouraged about my prospects of giving satisfactory relief to the child as the mother did about my colleague's efforts.

I ordered the treatment energetically continued. The general anæmic condition of the child caused me to suppose that she was suffering from some acute infection. I therefore ordered moderate doses of quinine and iron. The difficulty entirely disappeared within a week.

This case illustrates a large class where inflammation of the pharynx is kept active by exposure to poisons from faulty plumbing and other malarial sources.

Case II.—An infant, three months of age, had always had great difficulty in nursing because it was unable to carry respiration on through the nose. The child had had a bad discharge from both ears since it was three weeks old. The usual routine treatment for suppurative disease was of but little assistance in controlling the discharge. After an examination I removed some adenoid granulations from the vault of the pharynx. The discharge was readily cured after this by the usual methods of cleansing and inflation.

I know this statement that adenoid vegetations are found so early in life is not generally supported by the weight of authority. I have, however, found them, and other observers will also demonstrate that they exist even at this early period. This is another class of cases that are commonly overlooked and go on to hopeless deafness.

Case III.—Mr. M——, a man very high in political circles in this city, had a suppurating ear nearly constantly for twenty years, and had been, to my knowledge, under the treatment of two of the best-known otologists in this city for a very long time without relief.

On one occasion, through the absence of his expert advisers, he fell by accident into the hands of a young colleague, who had had only five years' experience. He discovered a small mass of granulation tissue, which was touched with a little chromic acid on a probe. The patient was completely cured of a discharging ear of nearly twenty years' standing within a week.

This illustrates another class of cases where very expert and experienced men overlook very simple conditions that contribute toward the misfortunes of the afflicted.

The following case, which is instructive, has also fallen under my notice:

Case IV.—A child, five years of age, had crowded a bean into the ear. The family doctor, a thoroughly conscientious man, called a neighbor, who made a specialty of surgery, to remove the bean. Among the *débris* he exhibited, when he had finished the operation, was a large collection of clotted blood, pieces of the bean, the ear-drum and the ossicles of an ear which had never been diseased.

This serves to illustrate a certain class of self-confident ignorant men, who are sublimely unconscious of the things in the world which they do not know. Such cases are not isolated, and the only reason they are repeated is because they are not reported.

We have thus far considered cases with which the average intelligent man who observes closely and is careful will have good success.

We will next take up a class of diseases of the middle ear which cannot be relieved by the routine treatment, neither can the conditions in the nasal passages, which are their underlying cause, be overcome by producing cicatrices at desired points by caustics or electric cautery. To many men cases of this class are stumbling-blocks. They do not appear to use good judgment in selecting a proper means to overcome severe obstructive difficulties in the nose; neither do they appear to possess the necessary mechanical dexterity to obtain the desired results. Another misfortune is, they do not seem to know, even after operating a score of times, that they have in no way relieved the faulty conditions, and they do not appear to exhibit any intelligence in deciding when a properly selected operation can or can not be beneficial to the hearing.

Case I.—Miss F——, fourteen years of age, has had repeated attacks of suppurative disease of the right middle ear since early childhood. Has catarrhal deafness in the left ear without ever having been complicated by suppuration.

November, 1890.—Hearing under most favorable conditions of inflation: Right ear hears watch at one inch; left ear hears watch at three inches. Tuning-fork conduction heard, as usual in middle-ear disease, worst in best ear. The defects in her nasal passages and pharynx, which caused her deafness, were the most numerous and difficult to overcome I ever encountered. She had been operated upon innumerable times, principally by electric cautery and caustics, for the purpose of overcoming her nasal obstructions.

The entire adjacent surface of the right turbinated bone was adherent to the septum, as a result of denuding both mucous surfaces by senseless attempts to remove the nasal deformities with the electric cautery. There was also extensive hypertrophy of the left inferior turbinated bone. The naso-pharyngeal space was completely filled with an adenoid growth. Although the efforts for improving the hearing by inflation and the usual treatment had been almost continuous for about a year, still the hearing had grown steadily worse.

Prognosis.—The facts that these ears had not been im-

proved by most persistent treatment, and that the hearing was not improved temporarily in the slightest degree by inflation were discouraging. I could not demonstrate that the attempts at inflation were successful, consequently its failure did not count for so much in the prognosis. The fact that the tissues of the nasal passages were not in any sense atrophic, but, on the other hand, were extensively infiltrated with inflammatory products, led me to suspect that the accessory cavities of the middle ear were in a somewhat similar condition. This was further substantiated by inspecting the ear-drums. The ossicles could be seen shining through a more or less pink-colored drum, and they appeared of a bright red color. The patient could remember that during settled weather in the summer-time she had some days when her hearing was very much better than on others.

The above facts, with her youth, were the only points which seemed favorable.

Treatment.—In the right nostril it was necessary to overcome the deformities of the septum, resulting from an injury in early life, also all the deformity which was produced by no less than twenty operations with electric cautery and other ineffectual means. The lower turbinated bone from its firm cicatricial adhesion to the septum had been drawn entirely from its normal position. It ran obliquely across the nostril. Every time the periosteum of the turbinated bone had come thoroughly in contact with the cautery a periostitis had resulted, and the turbinated bone had become two or three times its original thickness.

With the author's universal saw I made the line of the septum a straight plane, by cutting from below upward, thus leaving the septal deformity fast to the turbinated bone. The saw was then placed under the entire length of the turbinated bone and it was amputated. The piece, when removed, contained the deformed turbinated bone, and the septal deformity firmly fastened together. The redundant tissue on the turbinated bone of the other nostril was removed with the author's universal snare. The patient having good control of her throat, I seized, through the pharynx, in two grasps, with the author's universal snare, the entire mass of the adenoid.

Results.—December, 1892. Right ear, which was formerly a discharging ear, heard the watch at twenty-five inches. Left ear promptly heard the watch at forty inches. No unpleasant symptoms about the ears, and the patient has never had inflammation of the middle ear in any form since the completion of the surgical treatment, which, owing to the annoying hemorrhage, required four sittings to complete. The results are permanent and remarkable. It will be remembered that before operation the best obtainable hearing was—right ear heard the watch at one inch, left ear heard the watch at three inches.

On the pure ground of experimental research I did not use inflation in the after-treatment of the ear trouble in the above case, because I feared my colleagues who do not indorse this line of thought might claim that it was difficult to settle what credit treatment by inflation was entitled to.

The sensible routine treatment for middle-ear disease should always follow the removal of abnormal conditions from the nasal passages, and although I dispensed with this treatment I advise others to use it.

Case II.—Miss C. B——, aged thirty-three, complains of having had defective hearing sufficient to annoy her in her daily vocation, and also troublesome roaring in the ears. Hearing under most favorable conditions of inflation: Right ear hears watch at two inches, left ear hears watch at four inches. Tuning-fork conduction intensified in right ear.

The patient had been previously operated on by the nasal saw, electric cautery, and chromic acid, which for some months caused the annoying symptoms to disappear.

The deformity of the septum had been sawed *at*, it had not been sufficiently removed to overcome nasal obstruction. The applications of electric cautery and chromic acid to the turbinated bones had relieved the nasal stenosis until the collateral circulation had become thoroughly re-established, when the trouble again returned. An adenoid complication in the vault of the pharynx had been entirely overlooked.

Prognosis.—The age of the patient was not, on general principles, favorable for a case of catarrhal deafness. The membranes were difficult to judge of. Examination of the middle ear showed that active congestion was still existing. Inflation did not improve the hearing, but she was quite positive that at times she heard much better than she did when the examination was made.

I was much more discouraged about the prognosis in this case than in the previous one.

Treatment.—In December, 1890, I removed the deformity of the septum with the nasal saw. Removed redundant tissue from turbinated bone of opposite nostril, and adenoid from vault of pharynx with the author's snare. The entire operation required three sittings, as the patient was very nervous.

Results.—Hearing, on April, 1891, twenty-four inches in both ears. Roaring in the ears, which had been annoying for nearly a year, had entirely disappeared. The same conditions continued in November, 1892.

Treatment by inflation after the operation was not used, for experimental reasons already mentioned, but I am sure that generally it would be better to use it.

Case III.—Miss H. W——, aged sixteen. Best hearing under every possible condition of inflation: Left ear hears watch at three inches, right ear hears it at six inches. Tuning-fork conduction intensified in the left ear. Had been under treatment by Politzer's method of inflation, applications of nitrate of silver to the posterior pharynx, and electric cautery and caustics to the hypertrophy on the turbinated bones, for about three months each year for six years. Any improvement obtained by this method had lasted only from a month to six weeks. Roaring in the ears was also a very annoying symptom.

Examination showed immense hypertrophy on both lower turbinated bones, very large pharyngeal tonsils, and a large adenoid in the vault of the pharynx. The prognosis was good because of age, plain causes existing for the trouble; atrophic processes had not become pronounced, the middle ear could be plainly demonstrated as being acutely congested, inflation did slightly improve the hearing, and the patient was positive that she had periods in the settled summer weather when she could hear much better.

Treatment.—Removed with the author's universal snare hypertrophies the size of a Lima bean from each lower turbinated bone, a large adenoid from the vault of the pharynx with the naso-pharyngeal tip of the same instrument, and both tonsils by a simultaneous tonsillotomy with an instrument in each hand.

Results.—The hearing commenced to improve within seven days. April 4, 1890, hears same watch in both ears at forty inches, tuning-fork conductions are equal, and roaring in ears has entirely ceased. The same conditions continue in December, 1892. For experimental reasons inflation was not used after the operation.

Case IV.—Mr. H——, aged thirty-six, experienced difficulty in hearing in both ears. His right ear had annoyed him with roaring sounds for three years, but he had short periods when the noises annoyed him very little. On March 9, 1890, when he applied for treatment, the right ear had been annoying him for six months, and he found it difficult to continue at his business, owing to his defective hearing. Under all conditions of inflation the right ear could only hear watch upon direct contact, left heard watch at three inches. Tuning-fork vibrations heard loudest in the right ear.

Examination showed extensive septal deformity, excessive redundant tissue on both lower turbinated bones, and a large adenoid in the vault of the pharynx.

Treatment.—The deformity of the septum was removed with the author's nasal saw, and the defects which were

not bone were removed with the author's universal snare.

Results.—May 9th, hears same watch at twenty inches, with both ears; noises have entirely disappeared, and tuning-fork is heard equally. The same condition continues in November, 1892. No treatment by inflation followed the operation.

The facts that the annoying roaring in the ears disappeared at certain states of inflation, or during very favorable weather in the summer months, are necessary factors in giving any encouragement in the prognosis regarding these annoying roaring sounds.

Case V.—Mr. A——, aged twenty-five, applied for relief from very defective hearing in July, 1889. He stated that he had started the study of dentistry, but had been forced to give it up, owing to his absolute inability to hear instruction. He had sought the advice of such specialists as had been recommended to him, and they had pursued the ordinary routine treatment for catarrhal deafness, but he grew steadily worse under it. Best hearing under all conditions of inflation: The right ear heard watch on contact, left ear heard it at one inch. Tuning-fork conduction was best in right ear. He was unable to carry on ordinary conversation.

The examination showed ear-drums sunken and ossicles appearing red through them, tinnitus annoyed him slightly. An extensive deformity of the septum was removed from the left nostril, which had completely obstructed respiration on that side. He had been subject to very frequent colds in the head, which he ceased having after the removal of the deformity of the septum.

It was fully four weeks before his hearing commenced to improve. In three months it had so improved that he could attend lectures with comfort and again resume his study of dentistry. He was the valedictorian of his class. Hearing: Right ear heard same watch at six inches, left ear heard watch at twelve inches.

I frequently find middle-ear disease the direct result of uncomplicated deformities of the nasal septum, but I cannot believe that before the age of twenty-five it is so constantly associated with diseases of the middle ear as are adenoids in the vault of the pharynx. I have seen a great many septal deformities, however, which were not associated with middle-ear disease, although they are certainly a frequent cause of this form of deafness.

Case VI.—This case illustrates that unfortunate class of cases which, when having defective hearing, wait too long before applying for assistance. Miss W——, aged twenty-three, had catarrhal inflammation of both middle ears of five years' standing. Tinnitus was not present. Heard watch in right ear at one inch, left ear at six inches. The appearances of the ear-drums indicated atrophic changes of the mucous membrane of the middle ears. The mucous membranes of the nasal passages were also atrophic. The patient stated that from early childhood she had been subject to very frequent colds in the head. These symptoms had, however, disappeared during the last two years, which is the case as the mucous membrane becomes atrophic. The pharyngeal vault showed the shrunken remains of an atrophic adenoid. Her voice was abnormally low, showing that its sounds were intensified to her. She is positive that her hearing is decidedly better in the presence of noise. The first symptom indicates that the sound vibrations reaching the internal ear are prevented from escaping as freely as they formerly had by inflammatory thickening, thus illustrating reflected sound like a railroad train passing through a tunnel. The improved hearing in a noise is owing to the fact that the joints of the ossicles are stiffened as the result of inflammatory action, and weak sound-waves are not sufficient to set them in motion; but when once set in motion by strong sound-waves any additional sounds are easily detected. Politzer has said that these symptoms belong to the most hopeless cases of middle-ear disease.

From my own observations this is not in all particulars true. I have seen such cases where the same symptoms showed before true atrophic changes had taken place, and I then found a very different condition of affairs. The hearing improved as a result of treatment, the voice was no longer intensified, and the peculiarity of hearing better in a noise entirely disappeared. But when the above peculiarities are observed in connection with atrophic changes in the middle ear, as in this case, the prognosis is hopeless. It is sad to observe this class of cases and know that it was only owing to the lack of a chance in time that caused these individuals to become hopelessly deaf. Case VI. illustrates the unfortunate side of the question, while Case VII. illustrates the fortunate side.

Case VII.—Miss G——, aged eighteen, had very large tonsils, a large adenoid in the vault of the pharynx, and also deviated septum. Had reduced voice and improved hearing when in a noise. She had suffered almost constantly from colds in the head since a child. She had had marked trouble with her hearing for five years. The deafness had become so profound that it prevented the girl from completing a contract of marriage. The parties were wealthy and the marriage in every way desirable.

All the authorities consulted concurred in the opinion that the case was hopeless. This prognosis, at the time, I thought, was beyond criticism. The left ear had suffered from repeated attacks of suppurative otitis media, which started up every time an acute cold was taken in the head. Hearing, April, 1891, under most favorable conditions of inflation: Right ear heard watch at one inch, left ear heard watch only upon contact.

Treatment.—Removed, on April, 1891, deformity of nasal septum, with author's nasal saw; removed adenoid with author's universal snare, leaving the tonsils, because I thought they could not contribute much to the defective hearing. The case did not progress favorably notwithstanding I tried inflation of the middle ear. In about a week I removed both tonsils. The patient claimed that she commenced to experience relief on the following day. Since the operative treatment the left ear has ceased to develop suppurative otitis media, which it formally did every few months.

Hearing, June, 1891: Right ear hears watch at fourteen inches, left ear at sixteen inches. Tinnitus, which was formerly severe in both ears, now only attracts slight attention in the right ear; it has entirely disappeared from the left ear. Tuning-fork conduction is increased in the left ear. The peculiarities of reduced voice and improved hearing in a noise have entirely disappeared. Conversation, which in April, 1891, could not be carried on with me, when sufficiently close to operate on the patient, was carried on readily in June, 1891, and the marriage contract was completed as a result of the improved hearing.

Since this and a few similar cases I have not been so sure about the part enlarged tonsils sometimes play in keeping up chronic rhinitis, which will be dangerous to the hearing. Surely no progress was made in this case until the tonsils were removed.

Each case I have cited simply illustrates a certain class, not one of which I ever succeeded in permanently benefiting by the usual routine treatment for diseases of the middle ear, which I practised with energy and perseverance at a much earlier date. I have given each case credit for the best hearing that could be obtained under the most favorable conditions of inflation before operating. After operating I have asked no favors of inflation in crediting them with the improvement in hearing. This certainly must be considered as fair by those who do not favor this line of thought.

There is another class of cases, which are frequently met with, which not only require skilled treatment but also great diplomacy in their management. The following is an example:

Mr. M——, aged forty-five, comes to me complaining of a sudden loss of hearing in his right ear. Examination showed an old chronic catarrhal disease of his right ear, which a moment's inspection demonstrated as incurable, and which must have existed for years. The examination of the other ear revealed a catarrhal otitis of

a much later date. Right ear hears watch on contact; left ear hears watch at four inches; hearing not improved in either ear by inflation. The patient insists that his entire difficulty arises from the defective hearing in his right ear alone. Every experienced observer would know that his right ear had not participated in hearing to any practical extent for years, and that the annoyance he experiences from defective hearing comes from the left ear being attacked with a similar disease, which would in time destroy the hearing of this ear as completely as it has that of the right ear.

Many of these patients, who are suspicious of everyone's opinion but their own, cannot be convinced that their complaint is entirely due to the last affected ear. Unless they can be convinced of their error it is much better to allow some other person to treat them, someone who can favor their views of the case. They are always ungrateful and unsatisfactory patients.

This case had an extensive deformity of the nasal septum, with obstructed nasal breathing, and constantly recurring colds in the head. The septal deformity was removed and the patient could breathe freely through the nose after the operation. The recurrent colds in the head have ceased, and sixty days later he heard the same watch with his left ear at twelve inches, an improvement of three hundred per cent. Still this man complained bitterly of the unsuccessfulness of the treatment because the right ear, about which he had been assured at the first visit there could be no improvement, had not improved.

This case illustrates a common freak of human nature, and a large class of difficulties one must meet.

It can no longer be disputed that the shutting off of that accessory sinus known as the middle ear, which contains the mechanical auditory apparatus, and which is subject to constantly varying pneumatic influences, is the greatest cause of deafness in the world. If our progeny are to avoid deafness, great care and attention must be given to the earliest symptoms which indicate that the sinus of the middle ear is not in normal communication with the throat, and adequate means must be employed to re-establish this connection when it has been interfered with. A simple swollen condition of the mucous membrane of the nasal passages is the common cause which produces defective hearing, through its effects on the ventilation of the middle ear.

The above trouble may result from an occupation which exposes one to a constant draught, as a desk directly under a ventilator, which is a more common cause than is generally supposed. Constitutional influences may also be the cause of chronic inflammations of the mucous membranes of the head that will not improve without intelligent medical treatment. This form of inflammations of the mucous membranes, when following acute infectious diseases, as scarlatina, diphtheria, measles, and all others of this kind will, in the majority of cases, when uncomplicated, recover in time to save the hearing without any direct or special treatment. It is well, however, to diligently inflate the ears while one is waiting for the inflammation of the mucous membrane of the pharynx to subside.

Surf-bathing always endangers the hearing by the direct injection of salt water into the middle ear from the nasal passages. The rougher the water the greater is the danger. Ear disease the result of this cause, if uncomplicated, generally recovers in a satisfactory manner under the ordinary routine treatment of inflation, and the patients frequently make a good recovery without treatment. Inflammations of the mucous membranes of the head, due to deformities, hypertrophies, and growths of the nasal passages, produce diseases of the middle ear which cannot be improved without surgical assistance. It is just this class of cases, that require operative assistance and do not get it in time, that make up the great mass of deaf people in the world.

It is surely true that the length of time which frequently elapses during which the unorganized products of an acute inflammation may exist as the prominent factor in causing deafness, is not generally appreciated. Only in proportion as the defective hearing is due to the unorganized products of an inflammation can any favorable prognosis be indulged in, and the earlier the stage of inflammation the more sure one can be that the products of the inflammation have not become organized into new tissue.

There is no help for that part of defective hearing which is due to true connective-tissue formations in or about the middle ear. The attempt is now being made to overcome some of the disastrous effects of contractions in the middle ear resulting from chronic inflammation, by removing the ossicles. I have not the courage to hope for any practical success from this method as a means of improving hearing. In a small proportion of cases it may relieve the annoying subjective noises in the head. I am, however, open to conviction and am anxious to see the hearing of old cases of catarrhal deafness benefited by any method. The man who can accomplish this end will be warmly greeted by mankind. The best that can be done up to this period is to cure the deafness before the products of inflammation have become organized, and that is a very wide step toward the welfare of the people.

To avoid disappointing both patient and surgeon, good judgment is necessary as to how much of the bad hearing is due to the early unorganized products of inflammation, and how much of the trouble is due to the late or organized products.

If we look at middle-ear disease from the point the cases cited indicate, we will not find otology so discouraging as it has been. We will benefit our patients, when we have a fair chance, where formerly flat failures were encountered, and reputations will be saved by refusing to treat those who cannot be benefited.

THE USE OF COCAINE TO PRODUCE ANÆSTHESIA OF THE SKIN AND TISSUES BENEATH IT.

By EDWARD JACKSON, A.M., M.D.,

PROFESSOR OF DISEASES OF THE EYE IN THE PHILADELPHIA POLYCLINIC, SURGEON TO WILLS EYE HOSPITAL.

From the first use of cocaine as a local anæsthetic the difference between its effects on mucous membrane and on skin was universally recognized. The probable reason for the difference is the greater thickness and horny character of the epidermis, which offers a sufficient obstacle to prevent the rapid absorption of the drug into the sensitive tissues beneath. The magnitude of this obstacle varies with the thickness of the epidermis in different parts of the body, it being greatest on the back and outer sides of the extremities and least on the inner surfaces, and particularly on and near the eyelids.

Probably better local anæsthesia can be obtained in the skin of the lids by the external application of cocaine than in any other part of the body. The application, must, however, be sufficiently prolonged to allow of the soaking through of the epidermis by the fluid in which the drug is dissolved. While the various oils have been used to carry cocaine into contact with the tissue to be effected, probably because they do not give up the drug with sufficient rapidity to the serum of the tissues, they are of inferior value, and the watery solution gives better practical results. Its superiority, in my experience at least, has been very decided.

The Method of Applying.—Dropping the solution upon the surface is quite inefficient. In order to get the soaking of the epidermis necessary for the transmission of the drug, the surface must be kept moist for many minutes. This is readily accomplished by keeping it covered with a pledget of absorbent cotton, which is kept saturated with the solution.

The solution used should be as strong as possible, at least when it comes in contact with the tissue; if, how-

ever, the surrounding air is dry, and the absorbent cotton is freely exposed to the air, the evaporation will readily bring even the weaker solutions of cocaine up to near the point of saturation.

A most serious obstacle to the necessary soaking of the epidermis is the presence in it of a considerable amount of fat. This may be removed by carefully washing with soap or other alkaline preparations. Yet this very precaution has probably been the cause of complete failure in many of the attempts to produce cocaine anæsthesia of the skin. The presence in the epidermis or upon its surface of any residuum of alkali leads to the precipitation of the alkaloid cocaine from the solution of its salts in a form that is quite insoluble, so that profuse washing of the skin to remove the fat may by substituting the alkali render it far more impervious to the anæsthetic than it was originally.

In practice this may be guarded against by the prolonged use of pure water to remove all traces of alkali.

Again, the fat may be removed from the skin by careful washing with ether, and this is the best means if sufficient time is not available for rather prolonged preparatory treatment.

It is probable that the general condition of the lymph vessels materially influences the amount of the drug taken in through the epidermis. But to balance this, when absorption is most rapid into the skin, the removal of the drug from the point of introduction is also most rapid, so that the effect in anæsthesia obtained is not materially altered by the general condition of the lymphatics.

With the best application and under the most favorable circumstances the anæsthesia obtained by the application of cocaine to the surface is extremely superficial. Simply by such application continued while the incision is slowly carried down from layer to layer of tissue, the incision can be gradually and painlessly extended to any desired depth. At least this is true for incisions that do not present so great a surface as to cause danger of cocaine poisoning, and are not made through inflamed tissue. But this process is an extremely slow one.

If the incision is to be carried at one stroke below the true skin, even in the thinnest portions, the anæsthesia will not be deep enough to render it entirely painless, unless the cocaine is also introduced hypodermatically. To use it hypodermatically with the best success it is essential to introduce the drug into direct contact with the tissue to be cut or injured in the greatest degree of concentration practical, to get it promptly diffused throughout this tissue, and then to complete the operation before time has elapsed to allow of its being carried off into the general circulation.

The author's method, then, of using cocaine upon the skin is first to prepare the surface, either by washing with ether or with an alkali, followed by prolonged rinsing with pure water; then to keep the surface covered with absorbent cotton saturated with a strong solution of cocaine for from ten to twenty minutes. After that, for a rapid operation, to introduce the cocaine hypodermatically directly into the tissue to be cut, rapidly secure its sufficient diffusion by massage, and then perform the operation within a very few minutes. Used in this way, cocaine is capable of very greatly lessening or entirely preventing the pain of the removal of tarsal tumors and even of dermoid cysts, situated in the region of the lids or orbit. But it is always to be borne in mind that in the presence of hyperæmia and inflammation cocaine has little or no power as an anæsthetic.

The Determination of Sex.—Dr. A. C. Carney, of Dayton, O., sends the following as a contribution to the discussion upon the causes which may determine the sex of the child: "On March 1, 1892, in an examination of a young woman, I learned that her menstrual flow had just ceased. The following day she was married, and on December 4, 1892, she was delivered of a female child."

CONSERVATISM IN THERAPEUTICAL PROGRESS.

By R. ELLIS, M.D.,

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In 1834 Bigelow published his discourse on "Self-limited Diseases," which was introduced in these words: "It is observable to many physicians that a change in the mode of regarding the treatment of disease has come over the medical world during the past quarter of a century. In certain cases a practice of watching, guiding, and trusting the salutary indications of nature has taken the place of the more acute interferences of art. Those men whose medical career began at a period antecedent to that which has been named will recollect that the course then most prevalent among the profession consisted in energetic and sometimes annoying and painful application of supposed remedies from the beginning to the end of diseases, whether those diseases were amenable to such treatment or totally incapable of being influenced by them."

Since these words were written fifty years have gone by, a half-century of medical progress. Slowly but surely the profession world-wide are adopting the belief that most diseases are self-limited and to day are treating symptoms alone in the majority of diseases, even though no self-limitation may exist. We know we are forced to do this because we do not know as yet what the causes of disease are. When we build our foundation in this direction, we may then discover the proper method of further development. At present, when we attempt to treat the cause of disease, we are like the person who attempted to construct a syllogism without a major premise—we have nothing to lean on.

Scientifically, no disease is self limited, because if we knew precisely the cause of a disease and its own peculiar remedy we could abort any disease in its infancy.

In our treatment of the cause of disease we have made little advance since Bigelow's time, save in one direction. We have the light of bacteriology attempting to clear up the dark mysteries of etiology, from which study it is hoped that pure specifics may be discovered.

We must confess that our growth in this direction is tedious, laborious, and slow. We know that germs and disease are present together, but we do not know as yet that they exist in all cases as cause and effect. A germ may be found in the bodies of several suffering from a similar disease, but we cannot in all cases state positively that the germ is absolutely the cause of such disease; we cannot assert that without the germ the disease is impossible.

The tubercle bacillus, even at this late day, is regarded by some more as a scavenger of the disease than as the direct and only cause, even though we know that the scavenger may by inoculation cause the disease.

Tuberculosis is a form of disease which may originate either from within or from without; if from within, the disease produces the germ as a necessary scavenger; if from without, the germ has been introduced into the body.

In no other way can we reconcile the fact that weak parents beget offspring who are tubercular from within at their very birth.

The abuse of the laws of breeding produces an inferior race who succumb easily from a variety of diseases; chief among these is consumption. We do not believe that this class from inherited predisposition all receive into their bodies the tubercle bacillus as the direct cause of their disease; some receive it, others develop it *de novo*.

As we advance in our knowledge of bacteriology more and more special germs appear, associated with special diseases, until in despair we cry out, *Cui bono?*

Our patients care little for germs or etiology or symptoms; they care only for treatment and prophylaxis. We fail to see that bacteriology has assisted us in their behalf, even though it has discovered the cholera bacillus, millions of which were swallowed without injury by a German scientist.

We are as much interested in the discovery of new germs as we are in the discovery of the new comet or the latest unearthed mastodon; they are interesting as facts, but they have no particular value to us as yet. We wish sincerely they did have.

The fault with us thus far is that we assume the science of bacteriology has proved more than it really has, and then we cry out, "Just see what we have proved," instead of hopefully saying, "Wait and see what we shall prove." Writers and teachers of "Practice," in their treatment of etiology have to "cram" in order to present that subject in the light of the most recent investigations. This must be revised and rewritten with each new edition.

The etiology of ten years ago is worthless if one wishes to be abreast of the times. Yet I do not believe that the authors of standard works on "Practice" believe that the etiology of to-day will be the same ten years from now. They insert under etiology the newest facts derived from the laboratory study of others, assume the absolute truth of their statements, and do not acknowledge that the etiology of disease is at present in the experimental stage, leading possibly to absolute truth.

We yearn for the Fabian policy of delay and expectation rather than for the policy of forcing a complete etiology from the facts up to date, which has and will produce much that is cumbrous unscientific chaff.

As busy, earnest practitioners we observe that of forty-three reported cases of ulcerative endocarditis the staphylococcus pyogenes albus was found twice, the pyogenes aureus fourteen times, the streptococcus pyogenes six times, the bacillus typhosus once, the diplococcus pneumoniæ six times, the tubercle bacillus once, and the bacillus fœtidus three times, with ten undetermined micro-organisms. We are glad this is true. It is interesting to read this in a practitioner's medical weekly. We believe it is scientifically all right, and try to make it of value to us in our daily rounds. We, however, are forced to ask, in one hundred cases how many undetermined and unclassified micro-organisms will appear? how many in one thousand?

In the treatment of skin diseases our authors persistently urge us to first seek the cause and then treat that. To help us they tell us that in eczema, up to date, we have fifty mucors, twenty varieties of penicillium, aspergilli, numerous cocci, bacilli, etc. The search is still going on. The more we discover the better pleased we seem to be, though we derive no practical benefit from such an infinitude of germs. We might here ask, if the discovered germs of eczema increase in the future in a like proportion to the past, how many thousand germs of eczema can be discovered in the next ten years? Who will classify them? Of what value will they be to us?

Erysipelas we now know is due to a parasite. We are forced to acknowledge, therefore, that all of our "specifics," from iodine to that beautiful preparation called "ichthyol," are of no value. We are glad the parasite has been discovered, and for the present we hope no more will be discovered. The parasite having been discovered, the burning question is, What parasiticidor can discover a parasiticidum?

It is granted to-day that Klebbs discovered the genuine diphtheria bacillus, and that Löffler first succeeded in developing pure cultures of the germ. We believe this to-day. Will the germ to-morrow be considered the cause of diphtheria or simply as an accompaniment in some cases of the pathological process? The great trouble with the investigations into the germ cause of disease is that there are too many too eager to find something. The result is the discoveries are given out almost before the eye has left the lens of the microscope.

We are beginning to realize that the science of bacteriology demands of her devotees all of their time; we are beginning to realize that her secrets are to be given grudgingly, and then only after incessant toil; we are beginning to realize that the discovery of a germ is but the opening of a new path which may or may not have at the end the coveted prize—a pure specific. How infinitely long these paths are is shown by the fact that thus far no one has completed the journey to the end of a single path, although hundreds of paths have been disclosed. The fact is each path is a tedious complicated labyrinth more intricate than those of old. If the end is ever discovered, it will be by the concentrated study of all upon some one labyrinth and not upon all.

We believe if the science of bacteriology is really to advance to a position of practical value, the necessity exists at present for deeper study and less newspaper talk. A national department of bacteriology should be established in every country; the foremost investigators should have charge of this department; their pay and status should serve as a stimulus for young men of ability in this direction to make themselves worthy of a position in this department; there should be a feeling of harmony among the departments of different countries; all should bend their energies not on discovering a million more germs, but upon discovering a specific for some known germ cause of disease.

If one parasiticide can be discovered, absolute and sure, the way to practical results will be clear. At present no beginning in this direction has been made. Then we shall by slow, tedious, careful investigation know what germs are the real causes of disease; what germs exist as companions to the causative germs; then we shall know the action of germs upon the body components and the action of the body components (especially the fluids) upon the germs; then we can believe what we read, for we will read only what has been positively proved, unless we care to read the journal devoted exclusively to the bacteriologist; then we, as members of a noble profession, will not again be humiliated by any such fizzle as was "tuberculin," so prematurely given to the world; then we shall not turn from the beaten path to try some new remedy which Dr. Eagertokill-germs believes will be of value. Our advance will be slower, but much more sure and satisfactory. As practising physicians we believe in the future of bacteriology: we believe it will prove to be of very great practical value, but we do not invest in any of the stock at present. We have been deceived and misled and feel that in the future we will not invest in any "boomed" stock. We purpose to be more conservative, for we lost all we invested in the tuberculin stock, which was "boomed" by so many of our best men. We desire to sink deeper in the old rut after this experience, especially when we remember the reports of those who declared that tuberculin would prove to be the greatest discovery of this century. We know now they were terribly mistaken, and we begin to realize how very difficult it is to be absolutely right, so we sadly leave the germ-workers to their researches and go back to the old path.

Here we have plenty to do in separating the chaff from the wheat. We know we heard our trusted professor some time ago say that the antipyretics were a great innovation and would prove to be of inestimable value; now he says, "Don't use them." We used to believe that the salicylates were almost specifics for rheumatic poison; now we are surprised to learn that they act as anæsthetics for rheumatic pain, but they have no action on the rheumatic poison. The therapeusis of diphtheria has been the Pharmacopœia from A to Z. Now thirty authors contribute their views upon the treatment of this disease, and we find about forty different remedies; did thirty more express their judgments, undoubtedly many other remedies would be suggested. The treatment in Germany differs from that in France, in France from that in England, in England from that in this country. It would seem after so much study that the best treatment could be agreed upon. Yet no two persons of authority in different countries will exactly or nearly agree: one clings to the old, another seizes eagerly all that is new, another takes a little of both, until even now our treatment of this horrible disease embraces as it did years ago the whole Pharmacopœia.

I ask, is it not possible for all to agree upon just what

remedies are of value in this disease? Take typhoid fever; the treatment to day varies from gun-shot prescriptions, from calomel and iodine, to absolutely no medicine.

In one of the largest of the New York hospitals a visiting physician, in the days of intestinal antisepsis, treated his typhoid cases with eight antiseptic remedies and published the brilliant results of his treatment. At the change of service another physician, equally well known, dropped all the antiseptics and limited the treatment to milk and lime-water, with equally brilliant results.

We dislike to confess that there is no direct treatment for internal pathological conditions and we therefore eagerly seize upon whatever is presented to us for trial, no matter where it comes from. Only yesterday a patient of mine gave her child, to cure whooping-cough, urinary sediment, because "her husband's mother gave it to her children." We act in just the same way. Dr. Jones, of Finktown, gave binoxide of manganese for amenorrhœa and reports the fact in the medical press. Soon many try it, and finally a leading gynecologist, without any reason for doing so, declares in his lecture that "he regards this new remedy almost as a specific in amenorrhœa." His students eagerly seize upon the statement, give the drug in their practice for a few years, with little or no success. When they read that Professor Toohasty no longer mentions the drug, his students correctly say that he never should have mentioned it. So it is with hundreds of remedies. We regard as useless to-day what we praised yesterday; we disown to morrow what we zealously adopt to-day.

It is distressing to think that this unscientific method of seeking for therapeutical advancement is likely to continue for a long time to come. When cholera recently visited some parts of the world, what was our treatment? Everything was suggested, no two treated the disease alike, and little scientific advance in cholera therapeusis was made, although Russia alone lost over two hundred thousand from the pest.

Though we believe in the future of bacteriology, up to date it has not lowered the death-rate. We find that just as many die, in spite of intestinal antisepsis, in spite of the science of bacteriology, in spite of the relations asserted to exist between bacilli and intestinal lesions.

Notwithstanding all this we are not discouraged. We know progress is slow and we know we are on a higher plane than we were in the past. These facts encourage us to renewed exertions.

The Pharmacopœia of the last century embraced, among other pleasant remedies, toads, frogs, virgin's slime, the dried flesh of a red-headed man dead from hanging, and other pleasant remedies. These have years ago entirely disappeared. We know that our Pharmacopœia becomes more and more progressive, and we are hopeful for the future, therefore, as we watch the steady advance of therapeutical knowledge.

Under the subject of "Treatment" writers of even five years ago threw in the whole Pharmacopœia, so as to be "thorough." The most recent practice drops much of the old, boldly and frankly states that we possess few specifics, and mentions under the treatment of each disease but a few drugs which are known to be of value as symptomatic remedies.

We gratefully and cheerfully take up this work on practice to relieve us from the dizziness and cerebral congestion produced by attempting to classify the names and therapeutical indications of the scores of new coal-tar derived "ins" which are daily being put upon the market, in the hope that the too credulous profession will take up their "new and important discovery" with the same zeal as was shown in the case of phenacetin, which up to date fulfils all therapeutical indications.

We are glad to note that this work does not invest much in coal tar stock. We believe their value is inflated by an overuse of printer's ink, and we propose to "fight shy" of too much of a good thing. We believe it advisable to be the "last to lay the old aside" and the first to receive the tested new.

Therefore we believe in asepsis and antisepsis; we believe that union without suppuration is the greatest surgical triumph of the century; we are proud of our surgical progress; we believe in "germs" and look upon the science of bacteriology with hope, not without fear; we cling to our old tested remedies and look askance and suspiciously upon the new, more especially the untested productions of the coal-tar series, appearing and still appearing; we believe in rest and massage and hydrotherapy and electricity; we believe in "tested" drugs, but not in gun-shot drugs any more than we believe in gun-shot prescriptions. We believe therapeutical progress should be influenced by a greater conservatism.

Clinical Department.

A CASE OF ABSCESS OF THE LIVER.[1]

By C. C. MOORE, M.D.,

PHILADELPHIA, PA.

S. D——, aged fifteen years, of good family history, but himself always a delicate child. History by parents: The patient from six years of age had frequent attacks of pain in the right flank in the region of the kidney and the liver. These attacks came at intervals of from four to twelve weeks and lasted from one to four days; recovery was by crisis and with a profuse discharge of very dark urine with a very thick sediment. These attacks were ushered in with extreme and sudden pain, suppression of urine, and usually followed excessive exercise or exposure, and were more frequent in warm than in cold weather. More time has elapsed between attacks, but they are getting more severe with the increasing age of the patient. He has been subject to no other disease, but his strength and endurance have not been equal to that of other boys. This is the history given by the parents, and, as he had always been attended by a physician of strange theory of disease, cause, and relief, no information could be obtained from former treatment. Each attack followed the other with exactly the same symptoms from beginning to recovery.

June 14, 1892.—I was called, and saw the patient for the first time. I found him suffering with pain in the right renal region, but extending all over the abdomen, with vomiting. There was no fever, but a pulse of 90 excited from vomiting. The tongue was coated, and there were all the symptoms of an acute gastro-intestinal inflammation, caused by abuse of the stomach with indigestible food. Thinking this was the trouble, I prescribed, and, comparing him to other patients, thought this would bring relief, and told the parents to call me if needed again.

June 15th.—I was called in the night, and found the patient with extreme pain in the usual position, suppression of urine, and all the symptoms of former trouble. I got a complete history of the former attacks, and, realizing that I had a difficult case to treat, I gave morphine hypodermically, and told the parents to send a sample of urine next passed, for examination. The urine was suppressed in both kidneys, while pain was only in the right renal region.

June 16th.—The urine examined was very dark, and blood settled thick in the bottle; reaction acid, and boiling showed about one-fourth albumin. He had slept well after the morphine, and was taking nourishment. The abdomen was flat and tense, the muscles were drawn in tonic spasms, and the movements of respiration were limited to about one-half as much as on left side. Pain was extreme over the region of the liver and kidney when percussing. The patient was turned on the right side with the knees drawn almost to the chin. Thinking to neutralize the acidity of the urine, a potash mixture was ordered with plenty of water to drink. The use of a potash mixture in acute inflammation of the kidneys may

[1] Read before the Northern Medical Society, of Philadelphia.

be questioned, but it did neither good nor harm in this case.

June 17th.—Bowels not acting, a bottle of citrate of magnesia was ordered.

June 18th.—Medicine acted, and patient looked better; urine apparently normal, but the pulse was 98 and temperature 99° F.

June 19th.—The fever and pulse were the same, but the pain was severe and increasing, and sufficient morphine was ordered for relief.

June 22d.—Had remained the same for four days. The bowels had moved every day, but began now to annoy him; so a forced enema was used, and a large scybalous mass was removed. I thought this would afford certain relief, but the temperature remained the same night and morning.

June 23d.—Temperature, 101° F.; pulse, 120; a typhoid condition existed. This continued for seven days. I used sufficient morphine to relieve the pain.

June 30th.—The intercostal spaces are bulging, and the area of percussion dulness extended to the fourth rib; the right lung was full of moist bubbling râles. He was expectorating a quantity of thin malodorous pus very like that from a pyothorax, and I chastised myself silently for overlooking a pleurisy and letting nature do the operating. He took food and drink, but was emaciating rapidly, and the discharge of pus through the lungs and mouth did not relieve pain, temperature, or pulse.

July 3d.—The strength is failing. I believed that an abscess had formed in the right side; but the problem was, whether it was of the kidney, liver, or lungs. The beginning was with the kidneys, then occurred the partial impaction of the bowels, then the bulging of the ribs and expectoration of pus.

July 4th.—John B. Deaves was called to assist; and, after about an hour's examination, we decided to find what was inside of the patient. Using ether carefully—for the heart was weak, and only one lung of any use—we explored the side with a small hypodermic needle. We found dark, thick blood over the liver and pus in the intercostal spaces above. I must say the pulse strengthened with the ether. I have often noticed that when the pulse is weak from absorption of pus it usually gains strength and continues strong while the ether is used, unless hemorrhage is profuse. The needle showed the presence of pus in the chest cavity, and, thinking to drain at the most dependent portion, an incision was made in the axillary line at the ninth intercostal space. The diaphragm was adherent to the pleura, and the puncture caused a free flow of very dark, thick blood. The ribs were fortunately not close to each other, leaving room for a thick gum drainage-tube, and the abscess cavity was washed with a bichloride solution, 1 to 2,000. No medicine was used, and from this time a rapid recovery followed. The wound was thoroughly washed every day, and the granulations gradually pushed the tube out in three weeks. There were no relapses of any kind. There was no jaundice at any time. When the wound closed, July 28th, the patient had his usual kidney trouble for three days. I now thought it time to interfere, and ordered a strong infusion of taraxacum lappa and absinthum.

August 14th.—Fourteen days after using this mixture the urine remained normal, when the boy had a profuse discharge of acid albuminous bloody urine; but there was no pain or complaint of feeling unwell in any way.

September 7th.—The urine had been examined every week, and had remained normal since August 11th. I can scarcely say how much good there was in the medicine used, but there has been no return of any urinary trouble up to this time, a period of nine months. This infusion was used at intervals for about four months.

In conclusion I must say there was no point to locate the abscess, and it was only found by several thrusts of the needle. There was considerable bending to the right side after the boy had risen from the bed: but this has been overcome by gymnastic exercise of the lungs and chest muscles, until expansion of the right lung is almost equal to that of the left. I believe the operation saved the patient's life, and, while it might have been done sooner, it was done earlier than in most of such cases. The temperature and pulse indicated pus on June 20th, and from that time to the establishment of drainage was fourteen days. Opening before adhesions of the liver to the diaphragm, and this to chest wall, had occurred to make a tract to drain through would not have been wise, and a delay of a day or two would, I believe, have destroyed life. In the two previous cases of liver abscesses, caused by injury, that I have seen, I believe the lives were sacrificed by delay of operation, depending on medicine that did no good whatever. Exploring with a hypodermic needle would have very easily diagnosed the cases. My patient could give no cause for this abscess, though about four months previous he had received a severe blow on the side with a base-ball; but this was not sufficient to cause him to cease playing. He had an attack of kidney trouble about two months after this accident.

November 9, 1892.—The patient has been perfectly well and is growing rapidly, still using the drugs before mentioned. If these medicines have any dominant physiological action it is on the kidneys: so I think it only just to give them some credit.

May 1, 1893.—The patient is well.

2349 Cumberland Street.

ACUTE IODISM.

By WILLIAM LOGIE RUSSELL, M.D.,

NEW YORK.

The following case is of interest because, so far as I am aware, no death from iodism has previously been reported.

The patient, a man sixty-eight years of age, was seen in consultation with Dr. William S. Moore. He was of robust physique, and enjoyed fair health with the exception of rheumatoid arthritis, with which he was affected. A slight exacerbation of this trouble had led him to call in a dispensary physician a few days before. The following was prescribed:

R.	Syrup. ferri iodid.	ʒ ij.
	Potass. iodid.	ʒ i.
	Syrup. simplicis ad.	ʒ iv.
M.	Sig.: ʒ j. t.i.d.	

One teaspoonful of this was given on the first day, two on the second, and two on the third. By this time the symptoms of iodism were so intense that the medicine was discontinued, and Dr. Moore sent for. A profuse coryza and conjunctival congestion were then present. So intense were these that hemorrhages occurred from the nostrils and eyelids. The skin had at this time a mottled hue, and bullæ were found on the face, scalp, neck, chest, arms, hands, legs, and feet. Some of the bullæ were as large as a silver dollar and contained sanious fluid. The eyelids ulcerated and became so swollen and covered with crusts as to conceal the eyeballs. The nostrils were completely blocked with crusts. The mucous membrane of the mouth and throat was inflamed and eroded, swallowing being painful and difficult. The voice became husky, and at last sank to a whisper and disappeared. Superficial ulcerations took the place of many of the bullæ. There were no gastro-enteric symptoms. The urine was not examined. The mind was clear, and there was no neuralgia.

The patient remained as described above for several days. He died on the tenth day from the administration of the first dose, from inanition and a low grade of pneumonia. There was no autopsy.

101 West Ninety-third Street.

The Pennsylvania Board of Health manages to exist on an annual appropriation of $6,000, but it evidently cannot do much sanitary work on this amount of money.

Progress of Medical Science.

Treatment of Pericarditis by Ice-bag.—In the *British Medical Journal* for February 18, 1893, is an abstract of an article by Dr. Leeds on this subject. He draws attention to the serious consequences, through damage to the cardiac muscle, of the formation of adhesions which too often result in pericarditis after apparent recovery. He pointed out that the present treatment of pericarditis was practically *nil*, or, worse than this, harmful, because very frequently the onset of this disease causes the physician to stop the use of the salicylates.

He has tried the application of the ice-bag over the pericardium in such cases with very good results. In his opinion it subdues the adjacent inflammation, relieves cardiac depression, and actually acts as a true cardiac tonic. Of course it should be used with caution, and the patient should not become chilled. The application is generally favored by the patient.

Is an Ectopic Testicle Worth Having?—Surgeons are divided in opinion as to the propriety of endeavoring to preserve testicles the descent whereof into the scrotum has necessitated operative interference. It has for years been assumed, though on what evidence we have no means of knowing, that undescended testes are not more useful than they are ornamental, and they have accordingly been remorselessly snipped off when, owing to the coexistence of a hernia, or inflammation of the retained organ, an operation has been thought necessary. The real reason why surgeons adopt this course is probably because it has hitherto been found impossible to secure the testicle in a comfortable position inside the scrotum, in spite of much ingenuity in, and variety of, procedure. Now that the problem of bringing down and retaining the testicle has been to some extent solved, the question of whether or not the game is worth the candle comes up afresh for discussion. It is pointed out that, after all, no accurate and reliable data have been obtained or are obtainable, in support of the theory of the functional worthlessness of the descended testicle. It is at most a matter of surmise, and the surmises ought to be in the other direction. Most patients, if consulted, would unhesitatingly prefer to have two testicles, provided no additional risk were involved, and their æsthetical love for symmetry ought, as far as possible, to be respected. Moreover, the absence of a testis might seriously impair the chances of a candidate for the public service, in the army especially, where the uniform is tacitly taken to imply a certificate of *testiculous habet*.—*Medical Press*.

Localization of Early Phthisis to the Apex of the Lung.—Dr. Campbell, in discussing the question as to why phthisis usually begins in the apices in man, says that the chief reason is that in him the extreme apex is extra-thoracic and not intra thoracic. It is therefore under exactly opposite conditions, as regards pressure, to the rest of the lung; in inspiration the intra-thoracic lung is under a pressure less than that of the atmosphere, but the apex is subject to the atmospheric pressure which is communicated to it by the soft parts covering it. This is forced downward into the thoracic cavity, with the result that it becomes slightly compressed, and air is forced out of it; this air meets the incoming air from the trachea and large bronchi, and the pressure becomes equalized. The result of this is that on inspiration only a small quantity of oxygenating air reaches the apex. Again, on expiration, the pressure in the apex being that of the atmosphere, and hence less than that of the rest of the lung, air rich in carbon dioxide but poor in oxygen is forced into it. From the above it follows that the contents of the apex are under most unfavorable conditions for becoming aërated, and thus the vitality of its tissues is lessened, and their resisting power lowered. Further, the same conditions which interfere with the elimination of carbon dioxide also operate to prevent secretions and excretions from finding their way out of the apices: and this retention, and the resulting decay and decomposition of waste products, must still further lessen the power of resistance of the tissues to the attack of bacilli. He is further convinced of the truth of his theory by the study of the anatomy of the chest of monkeys, in whom, owing to the length of the first rib, and more especially to the backward direction of the clavicle, the entrance to the thorax is so blocked that it is impossible for the apex of the lung to rise out of the thoracic cavity, and in whom, though phthisis is common, the apices are, as a rule, less affected. If this view be correct, it is evident that the contraction which takes place at the apex in phthisis is of the greatest value for the purpose of cure, for by its means the extra-thoracic portion may be drawn down so as eventually to become intra-thoracic. If it were possible to hasten this desirable result by excising the extreme apex, it is probable that in cases of early phthisis cure would take place far more frequently than it does at present.—*The Boston Medical and Surgical Journal*.

Scopolaminum Hydrochloricum: A New Mydriatic, and its Use in Ophthalmology.—According to Raehlmann (*Klinische Monatsblätter f. Augenheilkunde*, February, 1893), scopolamin is set forth by A. Schmidt, of Marburg, as an atropoid alkaloid from the roots of the Scopolia atropöides, and, like atropine, hyoscine, etc., belongs to the pharmacological group of the tropeine. As such, the instillation of its watery solution into the conjunctival cul-de sac causes dilatation of the pupil. According to Landenburg, scopolamin, as well as hyoscine, are contained in hyoscyamus without being identical with the latter. Its chemical combination differs from atropine, hyoscine, etc. It is rather isomeric with cocaine, but naturally yields quite different integral products.

The preparation was given to Raehlmann by Professor Kobert, with the information that, after experiments on the lower animals by internal administration, scopolamin had exhibited an opposite effect to atropine, that its influence on the cortex of the brain was not stimulating, like atropine, but paralyzant. It did not increase the action of the pulse, like atropine, but, on the contrary, retarded its action. These last-named qualities lead to the expectation *a priori* that the local special effects of the new remedy would be different, especially those on the conjunctival vessels.

Raehlmann has made use of scopolamin, both on the normal and the diseased eye, and reached the conclusion that, as a mydriatic and an antiphlogistic, it surpasses all other tropeines, including atropine. In strength of mydriatic effect, it resembles hyoscine closely. The remedy does not produce the disagreeable after-effects and double vision which, according to his experience, occurred from the use of hyoscine, but it possesses all the advantages which belong to hyoscine in comparison with atropine.

During the last half year he has employed the remedy in all cases in which atropine may be used, and has also used it by way of comparison with atropine, and has found that scopolamin is, in many cases, at least, equal to atropine, while in others it is entirely superior.

Hydrochlorate of scopolamin operates about five times as powerfully as atropine. It paralyzes, like the latter and in the same degree, the sphincter of the iris and the accommodation. The duration of the effect is ($\frac{1}{2}$ per cent., scopolamin compared with one per cent. atropine) about the same; perhaps somewhat shorter with scopolamin than with atropine. It is to be used in solutions of one to two *pro mille* ($\frac{1}{10}$ to $\frac{1}{5}$ per cent.), which solutions accordingly correspond in dose to $\frac{1}{2}$ and one per cent. solutions of atropine. Scopolamin operates best when used in divided doses. In a solution of two *pro mille* ($\frac{1}{5}$ per cent.), six or seven drops may be administered daily to an adult, or used every fifteen minutes during one and one-half hours. With children, correspondingly weaker solutions are to be used.—*Therapeutic Gazette*.

A New Symptom of Aortic Aneurism.—The signs and symptoms of aortic aneurism in its early stages are by no

means so numerous or so characteristic as to dispense with the need for any additional assistance that may be available. Some interest, therefore, attaches to Dr. Gilbart Smith's suggestion that one of the earliest symptoms in a certain proportion of these cases is hæmoptysis. He suggests that the existence of paroxysmal cough, associated with the expectoration of scanty bronchial mucus, tinged with blood, not to be accounted for by the existence of any concomitant disease of the lungs, heart, or kidneys, is often an indication of pressure on the lung by the sac of an aortic aneurism. What the value of this symptom may be in this relationship it is not at present possible to say. It must often be difficult to eliminate co-existent disease of the viscera. Pressure on the lung substance or on the air passages by an aneurism may determine symptoms indistinguishable from lung affections of other kinds, and it is conceivable that pressure from other causes, such, for example, as mediastinal tumors, might determine the same group of phenomena. The hospital physician who has his patients under close and methodical observation for long periods of time may be enabled to derive assistance from this symptom which is denied to the general practitioner, but if the symptom really possesses the importance which Dr. Smith thinks it merits, it is not the less worthy of attention, simply because it may not convey the same significance to all observers.

Lithopædion Removed by Laparotomy.—The Berlin correspondent of the *Medical Press*, writes that at a meeting of the Medical Society, Dr. Gottschalk showed a lithopædion removed by laparotomy, that had been carried by the mother for thirty years. The patient was a woman, aged fifty-four, who had married at twenty-one, and had a child at twenty-two. In the second year of her marriage she again became pregnant, and as she reached the term she sent for the doctor, who was not able to dilate the os uteri, in spite of violent pains. A diagnosis of extra-uterine gestation was arrived at, but in those days, when laparotomy was not so frequently performed as now, the patient was left to her fate. She was confined to bed for eighteen weeks with peritonitis, recovered, and again began to menstruate, but did not again become pregnant. As soon as she wore a binder that held up the child she ceased to have any trouble from it. Two years later the child sank lower down, with the head in the pelvis, so that difficulties in micturition came on. Her friends sought to procure her some relief by placing her on her head once a week, when the child fell away from the pelvis. Her troubles increased during the last summer, and she was finally sent to the speaker for operation. He found the pelvis completely filled by a tumor, and above it reached to the umbilicus. A tumor of bony hardness was felt with bony prominences. On operation the tumor was found covered with peritoneum, omentum, and intestines all grown together; these were separated, however, until the placental site was reached, which was on the left broad ligament and very vascular. The freely bleeding points were ligatured, when he found that the left Fallopian tube ran up quite to the pelvic ligament. The patient made a good recovery. Dr. Hahn said he had operated some years ago on a similar case. The patient then had carried the child thirty years. The muscular structures had retained their entirety, as shown by the microscope, and in the other parts also the organs were completely intact.

Bichromate of Potassium as an Expectorant.—In the *Brooklyn Medical Journal*, Dr. J. H. Hunt contributes an article upon the treatment of bronchitis and other conditions in which expectorants are needed, by the administration of bichromate of potassium. He recalls the fact that seventeen years ago Dr. Hutchins recommended to him the employment of one grain of bichromate of potassium triturated with nine grains of sugar of milk and mixed with twenty teaspoonfuls of water, as a remedy for severe suffocative bronchitis, occurring in young children. So extraordinary were the results produced that Dr. Hunt has constantly employed the drug since 1875. He states that the only article of importance which he has been able to find concerning it was one of Dr. Drysdale, of Cannes, France.

Dr. Drysdale believes that the bichromate of potassium has a specific action or elective affinity for certain organs and tissues, and that its action is most marked on the mucous membranes of the respiratory passages, nose, eyes, and mouth, and on that of the stomach and intestines; on the skin, liver, and kidneys, the fibrous tissues, periosteum, and bone.

Hunt's experience with the drug has been confined to diseases of the respiratory mucous tract. According to this author, it is best administered in a freshly prepared solution. The physician may readily carry it in the form of a triturate, which is readily dissolved in water at the bedside; or tablet triturates containing one fiftieth of a grain may be used. These triturates contain the minimum dose for a child one year old. Hunt claims that the bichromate of potassium is readily borne by the youngest infant, but that it should not be given within a few minutes of feeding with milk. To a child one year old he gives as much as one-twentieth of a grain to the dose, if oppression and suffocation are impending, and then diminished at one hour intervals. Drysdale says that no more than one-fourth grain should be given per day, but Hunt claims to have exceeded that amount without bad effects, instructing the attendants to diminish the dose if it acts like an emetic, but not to diminish the frequency of its administration. When it is rejected by the stomach it is without nausea or after-irritating effect. Dr. Hunt gives ten grains of the powdered triturate, or a corresponding number of one-fiftieth grain tablets, to be dissolved in twenty spoonfuls of water, with the best effect. This is probably due to the minute subdivision of the drug through trituration.—*Therapeutic Gazette*.

Typhoid Fever in Puerperal Women.—It has long been known that typhoid infection is rare in pregnancy, and that even when established is not rendered more serious by the puerperal condition. But, on the other hand, typhoid fever causes abortion or premature labor in about two-thirds of the cases, the more surely in the earlier months. This accident oftenest occurs from the third to the sixth month of pregnancy, and from the second to the third septenary of fever, though it is not unknown in convalescence. Although it is so generally admitted that this disease is not more than usually dangerous to pregnant women, prognosis becomes more unfavorable when it attacks the patient in the early period of lactation, though the cause of the difference is not well established. According to Carret, the affection under these circumstances is insidious, and may simulate septicæmia, when danger is usually great. Homolle thinks the puerperal condition renders the outlook more unfavorable, but neither of these authors assigns a reason for the special severity of typhoid fever in these cases. The gravity of the malady depends less upon complications than upon exaggerated symptoms, and may not these depend upon the modifications of the hepatic gland which occur during pregnancy, the normal functions of this organ and its lesions during infection by the Eberth bacillus? Siméby's researches showed that lactation is accompanied by fatty degeneration of the lobules of the liver. On the other hand, MM. Seredey-Legry observed a slight granular fatty condition of the periphery in typhoid fever. It would seem, then, rational to admit that the liver, thus weakened by lactation and the typhoid processes, is unable to play the part of protector from the poisons brought to it by the portal vein. These toxic products, with their generative microbes, exist in great quantities in the intestines during typhoid fever, and, as the system is thus deprived of a part of its defences, the patient very often succumbs. Here, as under other circumstances, according to M. Hunot, the prognosis of this disease depends upon the condition of the liver.—*Occidental Medical Times*.

MEDICAL RECORD:

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PROGRESS OF THE CHOLERA.

IT is difficult to follow the progress of cholera in Europe, because of the policy of concealment maintained so persistently by the different governments. Every now and then we are startled by a report that the disease is epidemic in some unsuspected place, and a little investigation by disinterested foreigners reveals the fact that it has been raging there for weeks. The latest example of this is furnished by a report published in *The Lancet* to the effect that cholera has been epidemic in Marseilles for the last three months. The local officials, it is asserted, have carried their policy of deception to such lengths that even the Government has been led astray in regard to the real state of affairs. The Prefecture now admits that there have been six hundred and one deaths from cholera in Marseilles since the middle of May. On several days twenty deaths were recorded, and on one day two weeks ago the mortality went up to twenty-five. During the last four weeks there have been eight hundred and twenty-six deaths from cholera throughout France.

In Naples a veritable panic prevails, and it is said, though with what truth we do not know, that more than 100,000 residents, or one-fifth of the entire population, have fled from that city since the outbreak of the disease. The official reports greatly understate the facts. The report for one day recently said that there were nineteen new cases and nine deaths, but reliable private advices declare that there were fifty-two new cases and twenty-eight deaths on that day, and forty-nine new cases and twenty seven deaths on the following. Several cases of cholera are admitted to have occurred in Rome, and it is more than likely that the disease prevails there largely if it is not actually epidemic. This presumption is strengthened by the postponement of the International Medical Congress and by the report that the Italian Government has decided to forbid all pilgrimages to Rome while the disease continues.

The official returns on Sunday last announce that there were twenty new cases and thirteen deaths in Naples, and three cases and one death in Rome, during the forty-eight hours ending at noon of that day. It is safe to assume that the actual figures are considerably in excess of those given.

Dr. Young, of the Marine Hospital Service, stationed in Naples, reports that the sanitary regulations of the city are good and energetically enforced, and the water-supply is excellent, so that there should be no difficulty in checking an outbreak. The only thing in the way is the ignorance and superstition of the poorer classes. In spite of this, however, he says that the disease is spreading in the suburbs. The Italian authorities have finally consented to the adoption of measures for complete isolation for five days, of emigrants on board vessels before sailing for the United States. The pope has absolved the inhabitants of Italy from the obligation of fasting as long as the cholera prevails.

The accounts in other places are not reassuring. In Moscow there are between forty and fifty deaths a day from cholera, and the disease prevails to such an extent in South Russia, that the Government has issued an ukase closing all schools in that part of the empire. Twenty physicians have been sent to the Caucasus, fourteen to the Division of Kieff, and ten to that of Podolia. The disease is also marching westward from this part of Russia into Roumania and Galicia. Several cases have been reported from Lemberg, the capital of the latter province, and the disease has broken out at Brahilov and at Sulina, in the Pruth delta on the Black Sea, in the Roumanian garrison stationed there. A death from cholera in the east end of Berlin was reported on Sunday last, though the correctness of the diagnosis is doubted by the authorities. A bark from Cherbourg for Gravesend has arrived at the latter port with a case of cholera aboard.

In Alessandria, Italy, the cholera is officially declared to be extinct, and it is said that the disease is declining in Malta, the daily number of cases now not exceeding twelve.

The Karamania, an Anchor Line steamer from Naples, arrived in this port on August 3d, and was detained at Quarantine, owing to the fact that there had been three deaths on board from diarrhœal trouble, the last two on the morning of the day the vessel arrived. Since the arrival at Quarantine, two new cases of illness have occurred, which bacteriological examination has proved to be cholera.

A NEW DRUG HABIT.

WITH the putting forth of every new antipyretic is the statement that while it lowers temperature it does not depress the heart. Also in regard to each new hypnotic, it is stated that it induces quiet, refreshing slumber, and that there is no danger of the formation of the dreaded "drug habit" which so frequently results from the exhibition of this class of remedies. Paraldehyde, despite its intensely disagreeable odor and taste, has proven no exception to the general rule that "danger lurks in every (hypnotic) cup."

In the July number of the Edinburgh *Medical Journal*, Elkins gives an interesting account of a case of paraldehyde habit. It is probably the first of its kind on record. The patient was a married man, aged sixty-five, and a coachman by occupation. He was a man of naturally cheerful disposition, though liable to take offence easily. He had been troubled with insomnia for seven years, and twenty-six months before coming under observation (November, 1892) had begun to use, under medical advice, paraldehyde in small doses. The habit grew on him, so that on his own responsibility he had greatly increased the dose. When first seen he was using sixteen

ounces weekly. He had lost nearly thirty pounds, and had grown so weak that he had to lie in bed and be fed by his wife with a spoon. He had a slight rise of temperature every evening; a weak and irregular heart action, with palpitation; and a soft, intermitting pulse. There was considerable flatulency, bowels were costive, hunger excessive, and a paraldehyde odor was noticeable on the breath.

The symptoms referable to the nervous system are summarized by Elkins as follows:

1. Motor symptoms: General muscular weakness; general tremulousness, especially in tongue, facial muscles, and hands; gait feeble and unsteady; general restlessness. 2. Sensory symptoms: "Strange feelings" running through body. 3. Mental symptoms: Insomnia; great mental anxiety and agitation; discontent; unreasonableness; mental confusion; mental excitement; temporary loss of memory and incoherence of speech; shouting; tendency to strip himself; hallucinations of sight (he saw "strange beasts"); hallucinations of hearing (he heard his death would appear in to-morrow's paper, he heard his wife had said she wished he were dead); delusions (that he was being poisoned, that his milk was drugged with laudanum, that a woman was in his bed, preventing him from occupying it; that people were tormenting him, that the doctors meant to kill him, that the house was on fire, that harm was about to happen to him). It will be noticed that the hallucinations of sight and hearing and the delusions were all of an unpleasant kind.

Attention is also directed to the fact that many of the symptoms in this case are analogous to those found in alcoholics. This might be expected from the chemical relations of the two compounds.

The treatment was continued over a period of three months, and resulted in complete recovery. It was intended to diminish the drug gradually, but the patient's mental condition forbade any such arrangement being carried out. The first night he was allowed six drams of paraldehyde, the second night four drams. Thence all hypnotics were cut off till the eighth night, when fifteen grains of sulphonal were given. The latter remedy worked well, and was continued for some time in gradually decreasing doses. Thereafter the patient went on to gradual and perfect recovery.

The case is of much interest, both on account of its rarity and from its accentuation of the fact that no sleep-inducing drugs are entirely free from danger. In this particular instance it seems strange that any druggist would have been willing to dispense such a powerful remedy without distinct permission from a medical man. Such cases emphasize the fact that further legislation is needed in regard to the sale of poisonous remedies, and utter a warning to physicians to prescribe them with the utmost caution.

POSTPONEMENT OF THE ROME CONGRESS.

Much disappointment has been occasioned by the news, published in our columns last week, of the postponement of the International Medical Congress. Rumors of this postponement had been heard before, and therefore, although the source from which our information was derived was deemed trustworthy, we hoped the report might be premature, and that the meeting would yet be held on the appointed date. A later cablegram, to the Chairman of the American National Committee, from Professor Maragliano, of Genoa, the Secretary-General of the Congress, confirms our own previous report, however, and we can now announce definitely that the meeting will not be held until April of next year.

This will, of course, put an end to the Pan-American excursion to Rome which had been planned to take place by the Werra, sailing from New York on September 9th, and it may also prevent the attendance of some of the foreign delegates to the Washington Congress, who had proposed to be present at both meetings.

We fear, too, that the meeting next spring will be much less well attended than it would have been had it been held on the original date, for most of the universities will still be in session, and many of the more eminent medical teachers will be prevented by their professorial duties from going to Rome.

We may add that the postponement of the Congress throws a side light on the cholera in Italy, the presence of which in that peninsula the authorities have so strenuously endeavored to conceal. The occurrence of a few sporadic cases here and there would not have been of sufficient moment to cause so serious a step as this, and we are forced to the conclusion that Rome itself has been invaded by the scourge, despite the assertions of the Italian Government to the contrary. A further confirmation of this suspicion is furnished by the report that the Government is considering the advisability of forbidding for the present all Catholic pilgrimages to the Vatican.

MEDICAL MEN AS WITNESSES.

"A remarkable law concerning the examination of medical men as witnesses in negligence suits," says the New York *Sun*, "went into effect in this State at the beginning of July.

"It relates to the testimony of physicians or surgeons who are attached to any hospital, dispensary, or other charitable institution. Where such a man is required to testify in an action for the recovery of damages for personal injuries, in respect of information which he acquired in attending a patient at the particular institution to which he is attached, the new statute requires that the testimony shall be taken before a referee instead of being given in court before the judge and jury, as has always heretofore been the practice. However, the judge of the court in which the case is pending is empowered at any time, notwithstanding the fact that the deposition of the medical man was taken before a referee, to make an order requiring his examination upon the trial."

The *Sun* thinks that the law is "remarkable," and hints that it is unjust and uncalled for. Concerning this, however, we do not agree. There has been a great abuse of the subpœna power as regards hospital and dispensary physicians. The result was that these gentlemen were often kept a long time in court on petty cases, or called down for the bare chance of their testimony being utilized. Their regular work, which is at all times responsible and exacting, was thus seriously interfered with. Without committing ourselves to the exact details of the law, we feel assured that its general purpose is most wise, just, and necessary.

News of the Week.

Dr. F. A. Cox, of London, died of recurrent hæmoptysis on July 12th, at the age of thirty-seven years. He leaves a widow and four children. He was physician to the Western Skin Hospital and held several other appointments.

Dr. Jacques Bertillon, Chief of the Bureau of Vital Statistics of Paris, is in New York, and has been visiting the various bureaus of the Health Department here.

Three Patients are now under treatment for dog bites at the Pasteur Institute at Ninety-second Street and Central Park West, in this city.

Cholera Infantum is reported to be very prevalent among the Polish babies in Buffalo. It is supposed to be due to the practice of feeding the infants on stale milk. In the Polish district milk is kept as long as cream can be obtained from it, and the stale skim milk is then sold ice-cold at the rate of two quarts for five cents, and the stuff is fed to infants without being warmed, in order that it may not turn sour.

Dr. George C. Plummer, of Haverhill, Mass., was cruising in his yacht Matilda, with three friends, off Marblehead, on August 6th, when the craft capsized in a squall. The doctor was drowned, but the others were saved after clinging for an hour to the overturned boat.

A Medical University for Brooklyn.—The offer of $50,000 by Dr. C. N. Hoagland to the medical organizations of Brooklyn, on condition that they raise a like sum, for a building to serve as a general headquarters of medical men, has led up to a movement to organize a medical university. It is proposed to unite the Long Island College Hospital, the Hoagland Laboratory, the Brooklyn College of Pharmacy, and the various medical societies into one organization, to provide for advanced work in medicine, surgery, and pharmacy.

Another Blow to American Industries.—Notwithstanding the recent culinary efforts of a patriotic American to educate the German up to an appreciation of the savory and nutritious properties of Indian meal, Dr. Eugen Sell, of the Imperial Health Department, has reported to the Prussian Government that this substance is not a wholesome article of diet, and is unsuited for general consumption. If Dr. Sell could but examine some of our stalwart mountaineers in West Virginia and Kentucky, and see how they thrive on hog and hominy, he might be led to distrust the accuracy of his laboratory experiments.

Congress of American Physicians and Surgeons.—It has been decided to hold the Third Congress in Washington, D. C., during the last week in May, 1894. In place of the arrangement of former congresses, it has been determined that three afternoons and one evening of this meeting be given, in sessions of one and one-half hour each, to seven of the fourteen participating organizations; and that each society selected to perform this duty prepare its own programme for the period assigned it by the committee and select its own speakers. The selection of the societies to prepare programmes for the Third Congress was made alphabetically as follows: Anatomists, Climatologists, Dermatologists, Genito-Urinary, Gynecologists, Laryngologists, and Neurologists. The remaining constituent societies will be called upon under this rule to prepare programmes for the Fourth Congress in 1897.

An Investigation of Leprosy.—Dom Santon, a Benedictine monk, who has had a medical training, has been commissioned by the French Government to make a special study of leprosy in Scandinavia, Finland, Turkey, Asia Minor, Greece, and Egypt. When his investigations are complete, he will return to Paris, where he will lay his results before M. Pasteur, with a view to the possible discovery of a remedy for the disease.

The Quarantine Station at Brunswick, Ga., has been taken charge of by the Marine Hospital Service. This action is said to have been taken in consequence of the carelessness of the local authorities, which nearly caused an epidemic of yellow fever.

Dr. Ransel Mortimer Streeter died recently from heart failure, at his home, in this city. He was born in Chesterfield, N. H., March 23, 1839. He was a graduate of the University Medical College of this city, and began the practice of dentistry about twenty-five years ago. He was a member of the New York County Medical Society, the Odontological Society, and the Academy of Medicine.

Yellow Fever in Pensacola.—The Board of Health of Escambia County, Fla., reports that two persons have died from yellow fever in Pensacola.

Medical Society of Virginia.—The twenty-fourth annual session of the Society will be held in Charlottesville, Va., October 3–5, 1893. Authors must send to the Recording Secretary titles of papers at least five weeks before the session—failure in which will relegate any papers to the last day of the session. The Secretary classifies titles according to subjects, and assigns the order of their presentation. Half an hour only is allowed for the reading of a paper, and fifteen minutes for each discussion. The subject for general discussion is Chronic Nephritis; Leader, Dr. R. M. Slaughter, Theological Seminary, Va. Parties preparing papers on this, as also on other subjects, should inform the Secretary of any notes they may wish made in the Announcement, to be issued a month hence. Competitors for Dr. Hunter McGuire's prize of $100, for essay on "Obstruction to the Function of Micturition," as also for Dr. Joseph Price's prize of $100 for "History of Surgery and of Surgeons of Virginia," must forward their essays to the Recording Secretary on or before September 20, 1893. Applications for fellowship, with $2 initiation fee, should be sent to Dr. William D. Turner, Fergusson's Wharf, Isle of Wight County, Va. The Recording Secretary is Dr. Landon B. Edwards, Richmond, and the Corresponding Secretary Dr. J. F. Winn, Richmond, Va.

Iowa Public Health Association.—The third annual meeting of the Iowa Public Health Association will be held in the city of Davenport, Ia., August 31, and September 1, 1893. Headquarters will be at the Business Men's Association Rooms, in the Masonic Temple. A number of papers upon subjects of interest pertaining to sanitary science in its various branches have been prom-

ised. Dr. Paschal Davis, of Keokuk, is President, and Dr. P. J. Fullerton, of Raymond, Secretary.

American Dermatological Association.—The seventeenth annual meeting of this Association will be held at the Hotel Pfister, Milwaukee, Wis., September 5, 6, and 7, 1893. The following is the programme for the meeting: "President's Address," by Dr. George Henry Fox; "Antiseptic Treatment of Skin Diseases," by Dr. C. W. Cutler; "The Principles of Antisepsis in the Treatment of Eczema," by Dr. H. G. Klotz; "Cosmetics," by Dr. R. B. Morison; "A Case of Tuberculosis of the Skin Simulating Lupus Erythematosus," by Dr. W. A. Hardaway; "A Case of Rhinoscleroma," by Dr. G. T. Jackson; "Atrophia Maculosa Cutis, with a Case." by Dr. W. T. Corlett.

Report of Committee on Statistics. General discussion on: 1. Pityriasis rosea: *a*, its etiology; *b*, its relation to ringworm, seborrhœa, eczema, etc.; *c*, its treatment. 2. Dermatitis exfoliativa: *a*, its clinical forms; *b*, its etiology; *c*, its treatment. 3. "What do we understand by Pemphigus?" "Lupus Erythematosus as an Imitator," by Dr. H. R. Crocker, of London; "A Contribution to the Pathology of Acne Varioliformis," by Dr. J. A. Fordyce; "Angiokeratoma," by Dr. J. Zeisler; "A Paper, Subject to be Announced," by Dr. M. B. Hartzell. George T. Jackson, M.D., New York, *Secretary*.

The Late Dr. James O'Rorke.—At a special meeting of the Medical Board of St. Vincent's Hospital, held on August 1, 1893, to take action on the death of James O'Rorke, M.D., who, for nearly forty years, had diligently served as attending and consulting physician, the following preamble and resolutions were unanimously adopted:

Whereas, In the death of Dr. James O'Rorke, the sick in the hospital, the good Sisters, and the Medical Board have lost a faithful, devoted, and wise adviser, who, for more than half the allotted span of human life, had labored unceasingly, tenderly, and skilfully for the relief of thousands of sufferers, many of whom remember with gratitude his kind and gentle ministrations;

Resolved, That the members of the Medical Board signify their deep sorrow at the demise of their honored colleague, for whose integrity, sound judgment, and professional acquirements they have always entertained the greatest respect;

Resolved, That the Medical Board express to the family of the deceased its warmest sympathy in their sad bereavement;

Resolved, That a copy of these resolutions be transmitted to the family of the deceased;

Resolved, That this action of the Medical Board be published in the medical journals.

JOHN A. MCCREERY, M.D.,
Secretary of the Medical Board.

The Medical Treatment of Perityphlitis.—Revilliod claims to have had good success in the treatment of perityphlitis in the early stages by leeching, mercurial ointment containing belladonna, small blisters, calomel and opium, and gentle laxatives. Perfect quiet on the back is indispensable.

The Rôle of the Spleen in the Production of Immunity.—Tizzoni and Cattani have found that it is impossible to immunize guinea-pigs against tetanus if the spleen has previously been removed.

A Delicate Compliment to a Skilful Physician.—In a paper published in a recent volume of the *Archives des Sciences Biologiques*, Dr. Ouskoff, speaking of certain facts observed at the post-mortem table, says, naïvely enough: "Thanks to the presence in our hospital of so distinguished a clinician as the lamented S. P. Botkine, I have generally been able to continue at the autopsy the study of the complex symptoms observed during life." It must be a satisfaction to a distinguished clinician to be of assistance to his pathological colleague even if he cannot save his patients.

Dr. Henry Cropsey Cooper died recently, of cancer of the stomach, at his home in Woodridge, N. J. He was born in 1829, was a graduate of the College of the City of New York and of the College of Physicians and Surgeons, and served as a ship surgeon for several voyages on a sailing vessel between New York and Liverpool. He was a practising physician in this city when the Civil War broke out, and entered the Union army as captain in a company of the Seventh New Jersey Volunteers. He was wounded and was a prisoner for a time in Libby Prison.

The Life of Sir Morell Mackenzie.—Mr. H. R. Haweis writes to the *Tribune* of this city that the statement that he published a life of Sir Morell Mackenzie against the wishes of the family is incorrect. He says: "Just before the book appeared the family decided to suppress it. As the book was undertaken at their request, with material provided by them, and as the publishers had, with their full knowledge, printed and advertised for months, the publishers required their expenses paid. The family agreed to do so, and a sum was offered by them covering cost of publication and accepted. On May 29th I formally agreed to suppress the book, not on any terms proposed by me, but on the Mackenzies' own terms. They immediately withdrew their own offer, and refused to pay anything at all, leaving writer, publisher, and everybody out in the cold. The publishers then, without even consulting or informing me, issued the book. I am merely made the scapegoat, the Mackenzies being evidently afraid of the Empress's displeasure."

The Post-office Building in this city has been inspected by the Health authorities and has been found to be in a very unsanitary condition. There are two hundred and fifty-nine persons employed in the newspaper department in the cellar of the building, and there is an average of ten of them on the sick list daily. On the main floor, where the air is vitiated by the contaminated air of the cellar, there are seven hundred and forty-five employees. The building is under the control of the General Government, so that the Health Board can only make recommendations to improve the state of affairs. A copy of the report has been sent to Postmaster Dayton, and he has sent copies to the Secretary of the Treasury and to the Chief Supervising Architect at Washington.

Dr. James K. Davidson died recently at his home in Greencastle, Pa., aged eighty-three. He began the practice of medicine in 1833. He was a graduate of the Jefferson Medical College, Philadelphia.

Chicago Water is apparently not an ideal beverage, if we may trust the *Tribune* of that city. In an interview

with a citizen of Englewood, who has been examining the water microscopically, it says that "it is positively dangerous to drink unfiltered or unboiled water that is in as bad a condition as Chicago water is now in, and if cholera ever gets a hold in the city, with our sewage flowing into our water-supply as it does now, no one can tell what the devastation will be." Croton water is not æsthetically attractive, but it at least possesses the merit of being free from sewage contamination.

To Make a Better Job of the Next One.—To prevent a repetition of the bungling execution of murderer Taylor at Auburn, Warden Thayer, of Dannemora Prison, has been directed to put in an entirely new electric plant in his prison. The prison will be lighted by electricity, and the dynamo held in readiness should the regular apparatus fail to kill. It is hoped to have the new plant ready before the killing of murderer Foy during the week beginning August 27th.

The New York State Board of Health, at its meeting in Albany, on July 27th, elected Dr. Florence O'Donohue, of Syracuse, president.

Dr. John Rae died at his home, in London, on July 24th, after a prolonged illness. Dr. Rae was born in the Orkney Islands. He studied medicine at the University of Edinburgh, and after graduation there he took his degree as licentiate of the Royal College of Surgeons before he was twenty-three years of age. He served for a time as surgeon on a ship of the Hudson's Bay Company, and in 1845 accepted the command of an expedition to the Arctic seas to endeavor to complete the survey of about seven hundred miles of the coast forming the shores of a large bay, which Parry had failed to accomplish. This expedition, which proved successful, was the beginning of a series of voyages of discovery that made Dr. Rae famous as an Arctic explorer. He was a Fellow of the Royal Society, Fellow of the Royal Geographical Society, Honorary Correspondent of the Geographical Society of America, and Honorary Member of the National History Society of Montreal. The Founders' Gold Medal of the Royal Geographical Society was awarded to him several years ago.

Famine in China.—The inhabitants of the Province of Shan-Si, in China, are reported to be dying by the thousand every week of starvation, and the horrors of the situation are increased by cannibalism. Those who drop exhausted in the roads are attacked by companions, and the flesh of arms and thighs is hacked off and cooked or devoured raw.

King Otto, the insane ruler of Bavaria, is reported to be growing steadily worse, and it is believed that his death must occur soon.

A Novel Competition for Nurses.—In the course of the discussion on Nurses' Homes, which took place at the International Congress at Chicago, Dr. Billings, the President, expressed the view that it was about time that women manifested the latent power claimed for them in a practical and definite form. Architects and male experts had exhausted their ingenuity in designing nurses' homes, and he thought it would be well to invite the exhibition of woman's latent power by urging the superintendents of homes for nurses and training-schools to elaborate plans and enumerate each item which a model nurses' home and training-school should contain. The editor of *The Hospital* has adopted Dr. Billings's suggestion, and has decided to organize a competition which will be open to any woman engaged in nursing from any part of the civilized world. The following are the details of the proposed competition: Two prizes, namely, a first prize of $75 (£15) for the best plan sent in for competition, and a second prize of $25 (£5) are offered by the editor of *The Hospital*, London, England, for competition among lady superintendents, matrons, and nurses in the British Empire, the United States, and the countries of Europe. Competitors must send in the proposals in type-written form, which must consist of two parts: 1, A statement setting forth categorically all the rooms and accommodation which are necessary in order to make the proposed nurses' home a model of what such an establishment should be where room is provided for from fifty to one hundred nurses; 2, a second statement and plan prepared in similar form, which provides accommodation for from one hundred and fifty to two hundred nurses. Each of these specifications, 1 and 2, must be accompanied by plans drawn to a uniform scale, and must explain how the proposed home for nurses can be extended, should the growth of the establishment render such a step necessary.

Conditions.—1. The competitors must send their names and addresses by November 1, 1893, to Dr. J. S. Billings, U. S. A., Washington, D. C., and all plans and proposals presented for competition must reach Dr. Billings not later than January 1, 1894. 2. Dr. Billings, Dr. Henry M. Hurd, Superintendent of the Johns Hopkins Hospital, Baltimore, Md., and Miss Sophia S. Palmer, Superintendent of the Garfield Hospital, Washington, D. C., are appointed as the judges of the papers and plans submitted in this competition, and their decision will be final. Should the papers and plans submitted demand such a course, the judges reserve the right of withholding any award. 3. All proposals must be type-written on one side of the paper only, and all plans must be drawn to the uniform scale of one-eighth inch to one foot.

Special Note.—It is proposed to publish an account of the competition, with a selection from the competing plans, such publication to be undertaken by the Scientific Press (Limited), 428 Strand, London, W. C., at their option, to whom papers and plans will be sent by the judges after they have made their award.

The Relief of Symblepharon.—In the description of Dr. Rodman's ingenious device for the relief of symblepharon, in the MEDICAL RECORD of July 22d, it is stated that the pin is half an inch in length; it should have read one inch.

A Valuable Constituent of the Human Body.—A chemist computes that at the present market value the average human cadaver contains something like eighteen thousand dollars' worth of calcium. But, like the fabulous values of aluminum in clay, or of the gold in seawater, the cost of extraction at present prevents all profit to the would-be enterprising manufacturers, and the schools of anatomy will have no immediate cause for alarm as regards commercial competition.—*Medical News.*

Society Reports.

AMERICAN NEUROLOGICAL ASSOCIATION.

Nineteenth Annual Meeting, held at the West End Hotel, Long Branch, N. J., July 25, 26, and 27, 1893.

FIRST DAY, TUESDAY, JULY 25TH.

President's Address.—The President's Address was delivered by DR. HENRY M. LYMAN, of Chicago. After some reminiscent remarks relating to the study of nervous diseases he called attention to their predisposing causes, and said that we must not be content with the simple recognition of disease, but we must be able to classify it etiologically as well.

Rheumatism Affecting the Nervous System.—Such is the fact with regard to this condition. The marked forms chiefly affecting sensation are not so commonly recognized and are frequently ascribed to other causes. They are usually observed in elderly people of a nervous temperament and an arthritic diathesis, and differ from many other similar disorders of sensation in being transient, vagrant, and of brief duration. Among these ailments is a universal prickling over the surface of the skin; sometimes it is limited to certain points, where the patient experiences a sudden sharp prick, like a flea-bite. This may interfere with or delay sleep. Another disorder of cutaneous sensation often affects the scalp, and is occasioned by irritation of the superficial nerves of that region. The duration of the attack rarely exceeds a single day. Closely associated with these disorders are the various transient perversions of sensation that may be felt in the Eustachian tubes, the pharynx, and about the fauces. Another of the symptoms of masked rheumatism is a peculiar and disagreeable feeling in the tongue. This sometimes assumes the severity of a genuine neuralgia, and manifests a greater degree of persistence when associated with obesity, diabetes, or gout, than when connected with rheumatism alone. The œsophagus and fauces and sometimes the muscles of the eyeballs are similarly affected. These patients are also attacked by a paroxysmal cough associated with headache. The most distressing of all these forms of pain is gastralgia. The previous history and the concurrence of other rheumatic symptoms of a more stable character will, of course, add greatly to the certainty of the diagnosis.

Heterogeneous Personality.—DR. SMITH BAKER, of Utica, read a paper with this title. He defined heterogeneous personality as that condition in which the characteristics of ancestry are not blended into a permanent whole, and reported the case of a little girl who presented frequently recurrent attacks of functional perversions and distress which could not be satisfactorily explained except upon the inference that the dissimilar traits noticeable in her grandparents had not been blended in the personality of her mother, and so had proved to be the ground-field of the grandchild's affection. But the question arises, Is such a view of the case professional or scientific good sense?

We can never answer intelligently until the commoner facts of family life shall have been more minutely studied. Thus, such trite matters as dreams, somnambulism, the solving of problems unconsciously or subconsciously, the up-rush of facts and arguments in the act of composition, and the play of genius, should be investigated.

Inquiries in states of acute illness, and the study of moods and transformations of character, etc., all should receive more attention by physicians in order that causation in cases of functional derangement may be the more accurately conceived. In doing this, assistance may be found in many instances of so-called reflex disease. Heterogeneous personality should always be looked for in the neuropathic constitution. But more particularly is this of use in considering the problems presented by neurasthenia and the sexual perversions. Not so frequently perhaps is the trouble owing to the commonly assumed overwork, etc., as to the unceasing warfare within between the "lower" impulse and the "higher" determination. Students, professional men, and many others whose physical abnormities or mental peculiarities reveal the sensitive, easily impressed nature, are especially apt to be victims of the uncoalesced personality. Its bearing upon questions of marriage and parentage renders it worthy the attention of all.

DR. LYONS, of New York, referred to the opposite sides of character as seen among the insane. An educated woman may be agreeable and lovable in her normal condition, but vicious when in the abnormal state. He knew of such a patient who would frequently apologize and do her utmost to resist the impulses to do wrong. He thought that such behavior might be due to abnormity in the development of the cerebral hemispheres or to some interference with the circulation.

DR. PARSONS, of Sing Sing, expressed the view that in persons with a tendency to evil thinking and acting, such might be overcome by suitable environment. After a time the absence of restraint permits of a continuance or permanency of the abnormal condition. This would probably account for many of these cases.

DR. HINSDALE, of Philadelphia, spoke of two authenticated cases of double-consciousness. He thought that the medico-legal features of such cases, as well as those of changes in personality, were of special interest and should be reported and carefully analyzed.

DR. SEGUIN, of New York, believed that atavism was the more rational explanation. Blending of the characteristics of ancestors occurs normally. It was not right to confuse double-consciousness of an epileptic nature with conflicts of character and personality.

DR. J. J. PUTNAM, of Boston, said that the treatment rested upon the systematic development of character. Hypnotism has taught us much in regard to this condition, and brings out in a striking manner certain phases of character. He recommended the development of the inhibitory powers.

DR. F. X. DERCUM, of Philadelphia, thought the case reported by Dr. Baker recalled the fact that there was lowered vitality at certain epochs in women. Relationship between states of health might account for the peculiar mental variations.

DR. BAKER, in closing the discussion, referred to the various definitions of personality as being not sufficiently inclusive of the facts to be of accurate use. He urged the importance of the study of the subject, especially in its bearing not only upon the causation of actual disease but in its relation to all our educational ideas and practices as found to-day in our school system. In this way we find means of obviating detrimental traits, and also of making dominant those more desirable and healthful.

Detention Hospitals for the Insane.—DR. MATTHEW D. FIELD, of New York, read this paper. After speaking of the wrongs inflicted upon the insane by committing them to county jails and prisons, there to mingle with tramps while awaiting the appointing of physicians to pronounce upon their mental condition, he gave a description of the Reception Pavilion for the Insane at Bellevue Hospital, and the methods of examination and commitment by the city examiners. He declared the pavilion to be in every respect a hospital, with resident physicians and competent trained attendants. Though a plain and inexpensive building, it served its purpose very well. He advocated the establishment in all large cities of similar hospitals for the reception of those suspected of lunacy. He said that an ideal institution for this purpose would be a hospital constructed on the pavilion plan for the reception of the insane, inebriate, and neurotic, with a small amphitheatre and sufficient wards for proper classification and detention for a reasonable time. A competent visiting, resident, and examining staff of medical officers should be chosen, and clinical instruction regularly given. Such a hospital would secure prompt, humane, and scientific treatment. The opportunity for longer observation, securing histories and examinations, would

result in more complete and accurate certification. There being no need for hasty transfer to other institutions, the feeble, sick, and certain selected cases could be detained for treatment, and clinical instruction would be easily accessible to the entire medical profession.

Dr. Knapp, of Boston, said that there are no detention hospitals in Boston, and they have felt no urgent need for them under existing Massachusetts laws. A few emergency cases requiring immediate restraint are admitted to the general hospitals. Otherwise they can be taken at once to the nearest asylum on emergency certificates. These consist of two separate certificates. A bond must be given by the superintendent or one of the physicians to the effect that the patient is to be formally committed or released within five days. This system has proved eminently satisfactory and has rarely been abused.

Dr. Mills, of Philadelphia, stated that the method described by Dr. Field was in vogue at the Philadelphia Hospital. There was a detention ward for isolating cases of insanity. Two physicians are assigned to examine these patients before commitment. This ward has also been used for several years for clinical instruction.

Dr. Preston, of Baltimore, remarked that their lunacy laws were inadequate. They are endeavoring to establish a detention ward. At present insane patients are kept at police stations, as no general hospital is prepared to receive them. Their method of dealing with such cases is entirely unsatisfactory.

Dr. Parsons agreed with Dr. Field, and believed that such a ward would serve to diminish the number of improper cases sent to asylums.

Dr. Baker thought that a detention ward would prove extremely valuable for suspected cases of insanity as found in private practice.

The President said that in Chicago they have such a ward in the City Hospital where these cases are detained until transferred. Their commitment laws are now quite satisfactory.

The Temperature in General Paralysis of the Insane.—Dr. Frederick Peterson, of New York, read a paper with this title. He first reviewed the literature of the subject, calling attention to the statements of the various authorities that there are in general paresis extraordinary daily variations of temperature, that the average bodily temperatures are subnormal or hyperpyrexic, and that axillary asymmetry of temperature is particularly frequent. With the assistance of Dr. Langdon the temperature of twenty-five cases from the wards of the Hudson River State Hospital for the Insane was carefully studied. Observations were made every two hours for one week in each case, and in ten cases temperatures were taken in the two axillæ simultaneously every two to four hours for a week. He had reached the following conclusions:

1. As regards the average bodily temperature, it corresponded with physiological norms. The statements in literature as to hyperpyrexic or subnormal averages could not be sustained.

2. The diurnal oscillations of temperature in paretics also correspond to physiological norms. Observations found in literature as to frequent extraordinary daily variations in such cases seemed to be absolutely erroneous.

3. Asymmetrical axillary differences were so small that they could not be considered as abnormal, and certainly not of any diagnostic significance.

4. When unusual variations of temperature occur in general paretics, their cause must be sought for in conditions not related to the pathological phenomena of paralytic dementia, but depending upon other thermogenic features unrecognized by the physician, or "masked" by the mental state of the patient. Thus in Case 2 of his series an increasing hyperpyrexia was noted during the second week's observations, but the pneumonia causing it was "masked" until the fifth or sixth day, the patient dying on the sixth day. Again, in Case 10, where the highest single daily oscillation was 3.4°, and the average daily oscillations for the week 2.2° F., the patient had bed-sores on the sacrum and heels, and was undoubtedly somewhat septicæmic. That the temperature might vary in the paralytic seizures of these cases was not gainsaid, no observations having been taken in such conditions.

Dr. Gray, of New York, said that a large number of different pathological conditions are often included under the name of general paresis. He thought a number represent the terminal stages of intra-cranial syphilis.

Dr. Isaac Ott, of Easton, Pa., did not believe that the heat centres could be located from the symptoms of general paresis.

Dr. J. J. Putnam mentioned that he had occasionally noted oscillations of temperature in paretics.

Dr. B. Sachs, of New York, agreed with Dr. Gray as to the question of diagnosis. The results of his observations coincided with those of Dr. Peterson. He had recorded the rectal temperature. Elevations were often due to complications from gastric disturbances. The temperature was usually a little higher than in those who had no organic disease. He inquired if clinical studies of the heat-centres had ever been made.

Dr. Ott, in reply, said that he knew of only two cases of pistol-shot injury to the brain associated with immediate rise of temperature.

Dr. Parsons remarked that in one of his cases the temperature was always normal.

Dr. Charles K. Mills, of Philadelphia, regarded the manifestations of general paresis as so diverse in character that we can thus account for the different experiences of various observers.

The Anatomical Changes in the Spinal Cord in an Old Case of Infantile Paralysis.—Dr. Joseph Collins, of New York, presented numerous sections of the spinal cord and reported the history of a case of infantile paralysis of long standing.

Progressive Muscular Atrophy.—Dr. G. M. Hammond, of New York, exhibited microscopical specimens and gave the pathological report of two cases of progressive muscular atrophy, and referred to the fact that considerable confusion is occasioned by the misapplication of the term "peroneal type" to a disease totally dissimilar to the one under consideration.

The first patient was a woman, forty-six years of age, without history of gout, rheumatism, or syphilis. In the fall of 1889 she stumbled over a chair, bruising the right shin slightly, and a few days afterward she was unable to walk as well as formerly. Soon after, there was marked weakness of the flexors of the foot and the extensors of the toes. By October, 1890, there was complete paralysis of the entire right leg, with reaction of degeneration, loss of power and electrical contractility of the anterior tibial muscles of the left leg, and atrophy and loss of power of the thenar and hypothenar muscles of the right hand. Gradually but rapidly the other extremities became involved, and ultimately the abdominal and intercostal muscles were affected. She died suddenly, from either cardiac or respiratory paralysis.

The sections of the cord showed sclerosis of the pyramidal tracts and atrophy of cells in the anterior horns, and degeneration of Gower's column throughout its entire extent. The conclusion to be drawn from the clinico-pathological study of this case would be that the muscles of the hand were supplied by the mesial group, and the muscles of the forearm from the anterior group of cells in the anterior horn.

In the second case, seen in 1882, the disease only affected the muscles of the left thumb. He had the opportunity to watch the case to its termination in 1893. It ran the usual course and was in every way typical. At the time of death all of the muscles, from the level of the armpits upward, except the facial muscles, were atrophied, as well as those of the upper extremities. She became maniacal and finally died from exhaustion. The cord and medulla were examined and the changes were identical with those described in the preceding case. He concluded that these cases demonstrate that progressive muscular atrophy is due

to a degeneration of the cells in the anterior gray masses and the antero-lateral white columns. Also, that it is superfluous to divide progressive muscular atrophy into different types, because the disease does not invariably begin in the same group of muscles.

The last two papers were discussed together.

Dr. Mills agreed with Dr. Collins's views as to the arrangement of cells presiding over the flexors and extensors. He suggested examination of the nerve-roots at the extreme limit of the lesions.

Dr. Sachs thought such a careful pathological study will ultimately lead to better results than the usual clinical methods. That the Aran-Duchenne type was of spinal origin there could be no doubt, but he was not certain that the case of Dr. Hammond represented the peroneal form of progressive muscular atrophy as described by Charcot, Tooth, Hoffman, and himself. If the case were such, the findings in the spinal cord would have been of great importance. He was not yet certain whether the peroneal form represents a spinal disease or a peripheral affection.

Dr. Putnam had a case in an adult where there was rapid destruction of gray matter throughout the cord. Despite the violence of the process, portions of the anterior and lateral cell groups were preserved.

Dr. Preston inquired as to alterations in the blood-vessels. He believed this was the primary alteration in the pathological changes. He also asked if Dr. Collins had examined cross sections of the mixed nerves.

Dr. Gray thought it very difficult to make a positive clinical diagnosis between the central and peripheral portions of the lesion. This was often illustrated in the class of cases reported by Dr. Hammond.

Dr. Collins, in closing the discussion, said that his investigations extended over greater ground than his paper suggested. There was diminution in the size of the vessels, but no evidence of atheroma. The mixed nerves were not examined. He thought the hæmotoxylon stain useless for a study of the cellular structure.

Dr. Hammond concluded that the peroneal type was simply progressive muscular atrophy, beginning in the peroneal muscles.

Optic Neuritis, Blindness, Deafness, and the Knee-jerk in Cerebellar Disease.—Dr. F. X. Dercum, of Philadelphia, read a paper with this title. He thought many of the symptoms of cerebellar disease were both inconstant and variable. They are difficult of explanation and frequently impossible to correlate. He desired to call attention more especially to the optic neuritis, the blindness, the deafness, and the modifications of the knee-jerks. He related the history of seven cases in which the above symptoms were present.

It is a matter of common experience that very high grades of neuritis may exist without marked impairment of vision. It would seem, therefore, that the added symptom of blindness gives a special significance to the optic neuritis found in these cases. It would appear that for some reason if we have optic neuritis at all in cerebellar disease that it is apt to be intense in character, and, further, that it is likely to be associated sooner or later with total blindness. The proximity of the quadrigeminal bodies has naturally suggested itself as in some way explaining this blindness. The ataxia and titubation present in these cases refers us at once to disease of the vermiform process. A consideration of anatomy, as well as the autopsy of Case III., will show that if a growth be situated in the vermiform process, especially anteriorly, and that if this growth continues to enlarge, it will sooner or later press upon the superior cerebellar peduncles and very probably upon the quadrigeminal bodies themselves. When we recall the relation of the fibres of the optic tract to the primary optic centres, we can readily understand how, if pressure or irritation occur at this point, a neuritis should be a consequence. Further, the irritation being direct, we can, perhaps, understand why the neuritis should be of a high grade, and, finally, also why this neuritis should be associated sooner or later with total blindness.

With regard to the deafness which is present in some cases of cerebellar tumor, and which was absolute in Case III., it may perhaps be explained in a similar manner. The studies of Spitzka, Monakow, and others have made it extremely probable that the posterior quadrigeminal bodies stand in the same relation to the auditory fibres as do the anterior to the optic fibres. It would simply be necessary, therefore, to our explanation that the pressure involve these structures in order that deafness should be a symptom.

When we turn our attention to the knee-jerk, we meet with a problem of peculiar difficulty. It would seem that one would be justified in accounting for the loss of knee-jerk when observed in disease of the cerebellum by the loss of muscle tonus. It is extremely probable that lesions of the cerebellum act as do lesions elsewhere, in one of two ways: *i.e.*, either by destroying tissue, and thus destroying function, or by acting as irritants. It is perhaps in this way that we can account for the fact that in some cases of cerebellar disease the knee-jerk is absent, and in others present or exaggerated.

Dr. Gray hoped that Dr. Dercum's explanation of the symptoms would prove true, and asked if the pupillary reflexes had been observed.

Dr. Dercum replied that when the disease had advanced there was loss of reflex action to light.

Dr. Putnam spoke of a case of long-standing optic atrophy and practically no other symptom. Although the optic neuritis persisted for two years, the autopsy showed a cyst and tumor of the cerebellum.

Dr. Preston asked if distinct loss of muscular sense existed in Dercum's case. He had noted this symptom in two patients. In four of his cases the knee-jerks were irregular, disappearing and occasionally returning.

Dr. Knapp said that in all of his cases, confirmed by autopsy, there was neuritis or optic atrophy. In one case, where cerebellar tumor was suspected, neuritis had not developed. Blindness had not been so constant. In another case the light reflex was lost when the pupils became dilated. Pressure on the corpora quadrigemina was most likely to produce blindness. He had never noted deafness. As to disease of the middle lobe of the cerebellum being responsible for the ataxic gait, he thought this view untenable.

Dr. Leszynsky, of New York, said he had observed a number of cases; two with autopsy. He thought the concomitant basal meningitis had much to do with the production of the optic neuritis, by extension of the inflammatory process along the nerve-sheath. In many cases the neuritis was a late symptom. Where the neuritis or optic atrophy was accompanied by loss of light perception, the pupillary reflex was always absent.

Dr. Dercum did not believe the neuritis due to pressure, but more dependent on the location of the tumor. In his cases the neuritis was always of high degree. Neuritis, blindness, and deafness indicated pressure on the mid-brain. He would look for cerebellar symptoms where the knee-jerk was variable.

A New Method for the Reduction of Dislocation of the Cervical Vertebræ.—Dr. C. L. Walton, of Boston, in reading a paper upon this subject, said that since the publication of sixteen cases previously coming under his notice, he has seen several of similar character, leading him to the belief that this condition is not rare, though frequently overlooked. Reduction by extension usually attempted is unsuccessful. Spontaneous reduction has occurred, showing that direction is more important than force. This fact led him to the discovery of the method theoretically correct, as shown by manipulation of the vertebræ, and by experiments upon the cadaver made by Dr. Richardson, of Boston, and himself. The method has been recently demonstrated in practice by Dr. Beach at the Massachusetts General Hospital with successful result.

In illustration of the method: Suppose the left articular process of one vertebra has slipped forward over that of the vertebra below, and fallen into the depression an-

terior to the articular process. This bends the head to the left, and turns the face to the right. The reduction is accomplished by extending the head diagonally backward to the right, so as to elevate the articular process, after which rotation to the left replaces the displaced vertebra. The transverse processes on the right act as a fulcrum. The ligaments which hold the vertebra firmly in the false position make no opposition to this manœuvre, which requires no force. In bilateral dislocation the same movements should be made, first on one side, reducing it to unilateral displacement, then on the other.

Dr. Putnam said that cases are more numerous than supposed, and cited the instance of a man injured by a fall, who accidentally died through carelessness in his removal to a hospital.

Dr. Sachs asked if this method would be practicable in other than recent cases.

Dr. Walton replied that the operation was performed in one case of about ten days' standing. A case in which bilateral dislocation was produced spontaneously, with perfect recovery, would lead him to recommend the attempt at reduction, even after a number of months, should there be no doubt as to the diagnosis.

Second Day, Wednesday, July 26th.

Acromegaly, Gigantism, and Facial Hemihypertrophy.—Dr. C. L. Dana, of New York, read a paper with this title, and reported the history of a case of acromegaly with autopsy, also a case of gigantism or somatomegaly with some symptoms of acromegaly. The giant had a unilateral facial hypertrophy.

The first case was that of a full-blooded Bolivian Indian, who was exhibited as a giant. He was thirty years of age; height, 6 feet 7 inches; weight, 300 pounds. He had an enormous development of the malar and frontal bones. His thorax measured fifty inches in circumference. He died suddenly.

On autopsy the brain was found normal, weight fifty-five ounces; the pituitary gland was greatly enlarged, measuring one inch in diameter; thyroid weighed four ounces. The feet and hands had increased in circumferential measurements. The brain presented interesting peculiarities of fissuration.

The second case was a professional giant, 7 feet 5 inches tall, weight 350 pounds, age nineteen years. His muscular development was feeble. He had several symptoms resembling those of acromegaly. His most curious condition was a progressive unilateral facial hypertrophy, due mainly to osseous growth. It suggested an acromegaly attacking only half of one extremity. Only eleven cases of this affection are on record.

Dr. Dana said that acromegaly was sometimes associated with gigantism. He thought that many so called giants were instances of pathological growth, rather than excessive physiological development. There was much evidence to show that the pituitary gland had some function in these disorders. Among twelve autopsies, this gland was found enlarged in ten.

Dr. Dercum said that acromegaly is not associated with increase in the length of bones, but in their width. He regarded Dr. Dana's case as one of gigantism with acromegaly superadded.

Dr. Gray considered it a question whether acromegaly and gigantism are not identical. We are still in the dark as to the pathology of acromegaly. He thought the cases presented did not warrant Dr. Dana's conclusions.

Dr. Collins looked upon them as two separate diseases. In gigantism the changes are in the cellular structure of the diaphyses and epiphyses, principally the former. In acromegaly the changes are confined to the epiphyses. Probably the disease of the pituitary gland stands in proper relation to acromegaly. Much depends on the method of examination. He had destroyed the gland in animals to see if acromegaly developed; but all died. He thought giants may suffer from acromegaly, and regards it as a degenerative disease.

Dr. Brill, of New York, asked what structures in the brain were usually involved.

Dr. Collins answered the glandular structure of the pre-hypophysis.

Dr. Dercum expressed the view that as the other ductless glands are so often enlarged in acromegaly, to select a single gland as being enlarged seemed precipitate. No doubt the pituitary body may have important functions to subserve.

Dr. Putnam said that investigators have destroyed the gland in animals, producing polyuria, thirst, and debility. In view of the small number of autopsies, we cannot dogmatize. The gland was found normal in three out of nine reported cases.

He had seen temporary improvement in one case under the administration of thyroid extract. We are dealing with abnormities of development, and cannot expect to discover lesions as the cause. In ten autopsies that have been made, the thyroid was wasted in seventy seven per cent.

Dr. Sachs was of the opinion that both conditions are related. Gigantism is a form of physiological excess, while acromegaly is a distinct morbid condition. He did not attach much importance to the influence of the pituitary body, but thought our knowledge of the exact etiology and pathology is still in abeyance.

Dr. Weber, of New York, had seen two cases. One had symptoms of myxœdema. He was inclined to believe gigantism to be excessive physiological growth.

Dr. Mills had found at autopsy a tumor destroying the pituitary gland, but there was no acromegaly.

Dr. Dana, in closing the discussion, said we do not know the functions of the pituitary gland in its relation to acromegaly, but it is certainly of some importance. He still believes in the clinical relationship between gigantism and acromegaly, but looked upon gigantism as an irregular type. He regarded gigantism as a pathological condition. The thyroid was not enlarged in his case, but the pituitary gland was.

Thyroidectomy in the Treatment of Dr. Graves's Disease.—Dr. J. J. Putnam, of Boston, read a paper on the treatment of Graves's disease by thyroidectomy. After calling attention to the fact that this operation has been done some forty times, mainly by German surgeons, with but two deaths and a very large percentage of cures or improvements, the speaker narrated a case from his own experience. It was that of a young woman suffering from a typical form of Graves's disease, of nine months' standing, and with a rather large goitre. The right lobe and most of the isthmus were removed. During and after the operation the patient's pulse ran up very high, and for several days she lay in an extremely prostrated and apparently critical condition. She then rallied, and now, at the end of six months, her condition is decidedly better than before the operation, though she is far from being cured. The remaining portion of the tumor has not shrunk, and still shows a marked tendency to vascular enlargement. The voice was reduced to a whisper under the immediate influence of the operation, but has now nearly recovered its natural tone. This is not an unusual occurrence.

Dr. Putnam analyzed the reported cases from the following points of view: The immediate and remote effects of the operation (including the mortality rate after operation for goitres in general); the influence of the character of the tumor on the result; the degree and persistence of the improvement in favorable cases; the character of the operation.

Finally, the questions as to the nature of Graves's disease and the relation of the other symptoms to the goitre were discussed. It was pointed out that this relationship was probably based on the fact that the thyroid has important vascular functions.

Strong emotions are capable of causing temporarily most of the symptoms of Graves's disease. The reasonableness of the operation lies in the fact that in Graves's disease certain nervous centres are in a state of extreme

irritability. Any means which will cut off a considerable number of excitations from reaching the unstable centres is likely to be beneficial, by securing for them a partial physiological rest. There are various means, such as complete rest, the treatment of the naso-pharynx, etc., which may do this in a measure; but no one means is so effectual as thyroidectomy. The operation is, however, attended by a slight risk of death, and by a greater risk of considerable temporary prostration and laryngeal paresis.

Dr. Dercum had recorded the case of a man with all the symptoms of Graves's disease but the enlarged thyroid.

Dr. Weber had noted recovery in a patient possessing all of the characteristic symptoms under the persistent use of iodide of potash. The dose was gradually increased to three drachms daily.

Dr. E. D. Fisher thought it would hardly seem probable that in Graves's disease the enlarged thyroid can be considered as acting in a mechanical way in producing the symptoms. He had seen many cases in Canada, in whom apparently no symptoms were produced. These persons continued in their regular occupation without discomfort.

Dr. Putnam, in closing, said that a large number of instances of goitre without symptoms had been reported with autopsies. Such children in particular had suffered from debility, and there was dilated right heart. He gave a *résumé* of our present knowledge of Graves's disease, both experimental and clinical. He concluded that we have not sufficient data to establish a physiological basis for the disease.

Tabes and Syphilis.—Dr. B. Sachs, of New York, assumed that recent statistics of Erb and others proved the close relationship between syphilis and tabes. This was established, furthermore by: 1. The frequent occurrence of general paresis with tabes, and of tabes in the course of general paresis. 2. The occurrence of symptoms in the course of tabes which are often due to syphilis, the ocular palsies, loss of pupillary reflexes, and even the lightning pains. 3. The effect of mercurial and iodide treatment upon many of the symptoms of tabes.

The writer attempted a clinical differentiation of cases of tabes which are due to an active syphilitic process; among these he considers those which exhibit complete loss of reflex contractility of one or both pupils, and ocular palsies. He reported *in extenso* a case of typical tabes, in which, on post-mortem examination, a more recent syphilitic process was superimposed upon an old typical sclerosis. He next referred to the way in which syphilis might cause a spinal sclerosis. He gave reasons for thinking that this was largely due to degeneration brought about by syphilitic disease of the blood-vessels to the spinal cord. Altered states of the blood might be the prime cause of the change in the blood-vessels.

Dr. Preston regarded the syphilitic process as an arterio-sclerosis. Rarely is there hyperplasia of neuroglia without changes in the cells or nerve-fibres. The tabetic process probably begins in the blood-vessels. Traumatism seemed to be a most important etiological factor. He had seen improvement and relief of pain from the use of nitro-glycerine.

Dr. Mills looked upon the active lesions described by Dr. Sachs as probably causative of the sclerosis. Preceding the development of the sclerosis, there may be leptomeningitis and disease of the vessels, which if attacked early might be relieved or removed; but the sclerosis once established, recovery is impossible. Posterior sclerosis often advances at intervals by jumps, and these may be sometimes coincident with or may follow the revival of active syphilitic processes.

Dr. Parsons referred to two cases of syphilis followed by insanity and subsequent development of spinal symptoms.

Dr. Seguin still adheres to the idea that syphilis is only a predisposing cause for the groundwork of tabes. Certain cases occur that are undoubtedly free from any history or evidence of syphilis.

Dr. Knapp mentioned a case of primary syphilis being superadded to tabes of two or three years' standing.

Dr. Spitzka did not doubt that cases of tabes existed without syphilis. He had called the attention of the Association to the same pathological condition about eight years ago.

Dr. Walton thought the frequency of trauma in the production of tabes was overestimated. The ascending degeneration resulting from transverse lesions of the cord or from fracture can hardly be regarded as a typical tabes. If we could get at the real facts in all cases, the cases in which syphilis existed without our being able to elicit the history would more than counterbalance those in which we may mistake a chancroid for a sign of syphilitic infection.

Dr. Gray said there is an anatomical explanation for every symptom in tabes. In all cases he had seen he could differentiate between spinal syphilis and tabes.

Dr. Sachs did not claim that spinal syphilis is the same as tabes. We should never omit prescribing the most active anti syphilitic treatment in the early stages of tabes. He does not believe every case is due to syphilis. In the large majority of cases, syphilis is the prominent factor.

A New Pedodynamometer.—Dr. William C. Krauss, of Buffalo, exhibited a new pedodynamometer. The apparatus consisted of a wide heavy belt, its inner surface padded, so that its adjustment around the waist will not be uncomfortable. A heavy webbing is looped through the belt, passing over the shoulders, which helps to retain the belt in position. A common dynamometer is connected with the belt by means of a strong adjustable strap, permitting it to be lengthened or shortened, depending upon the stature of the patient. Connected with the dynamometer is a stirrup, the base of which is padded for receiving the foot. Pressure exerted upon the stirrup will be registered upon the dial of the dynamometer, and the exact strength of the extensors of the leg can thus be ascertained. The apparatus can be applied either in the standing or recumbent posture. The leg should be flexed about 90° at the knee. To tell the strength of the calf muscles, the strap should be lengthened and the foot flexed upon the leg.

Infectious Endocarditis with General Septicæmia, complicated with Multiple Neuritis.—This paper was a joint communication by Drs. James H. Lloyd and David Riesman, of Philadelphia. It was founded on the report of two cases. The first case was in a man who was admitted to hospital with a typhoid type of fever, which had continued for three months, and was complicated with multiple neuritis. The diagnosis of typhoid fever was excluded. The neuritis was irregularly distributed. The patient gradually developed an aortic regurgitant murmur, with water-hammer pulse. Later a purpuric eruption appeared. A diagnosis was made of infectious endocarditis with secondary septic neuritis. At the post-mortem immense vegetations were found on aortic valves, with infarcts in the spleen and in one kidney. Sections of the spinal cord and nerves were shown, exhibiting slight posterior sclerosis in the cord and extensive inflammation in the nerves. The second case, also in a man, simulated typhoid fever, with yellow-colored stools. At the post-mortem, multiple abscesses in the brain, a large embolus in the left brachial artery, and an infarct in one kidney were found, dependent upon a giant growth of vegetations as large as a pullet's egg, attached to the inner coat of the aorta, overhanging the orifices of the innominate, carotid, and sub clavicular arteries.

Dr. Dana regarded the septic origin of neuritis of much importance. He cited the case of a young man with symptoms of rheumatism not responding to antirheumatic medication. Pyelitis developed in two or three weeks, followed by multiple neuritis affecting all extremities. It is well known that multiple neuritis in this country is most frequently due to alcohol, and not of microbic origin. These forms of neuritis have a different

clinical history. Some cases have begun with a history of multiple neuritis, and have then shown symptoms of locomotor ataxia or other spinal-cord affection. There is a class of cases where the neuritis extends and ultimately involves the cord.

Dr. Dercum agreed with Dr. Dana's views, and believed posterior sclerosis occasionally follows multiple neuritis. He asked if septic symptoms preceded the neuritis in Dr. Lloyd's case, with history of alcoholism; to which Dr. Lloyd answered yes.

Tumor of the Angular Gyrus.—Dr. C. L. Walton, of Boston, reported a case of tumor involving the angular gyrus and extending into the temporal, occipital, and parietal regions. The symptoms were temporal and occipital headache, vomiting, paralysis of the left abducens from pressure, double optic neuritis, hemianopsia, word-blindness, asphasia, and word-deafness. Operation was attempted by Dr. Richardson, of Boston. The tumor, however, proved too large and diffuse for removal. The patient lived two months with comparative relief of pressure symptoms, including abducens paralysis. Toward the end, the right hand and arm became somewhat paretic. The autopsy showed the growth to be a glioma.

Dr. Seguin suggested that the ocular symptoms were probably not due so much to lesion of the angular gyrus as to involvement of the fibres of the fasciculus opticus, which lie immediately under it. The lesion being rather deeply placed must necessarily involve the white fasciculi.

Dr. Walton agreed with Dr. Seguin that the hemianopsia was due to affection of the optic radiations on their way to the occipital lobe. The early appearance of mind-blindness, together with red spots in the field of vision, suggested early cortical irritation in the region of the angular gyrus. If the symptom mind-blindness is considered due to affection of association fibres we are justified in assuming the association fibres implicated to be those running to the angular gyrus.

Congenital Cerebral Hemiplegia, with Autopsy.—Dr. E. D. Fisher, of New York, read the history of a case of infantile cerebral hemiplegia of congenital origin. The symptoms were a complete right hemiplegia, with marked atrophy and exaggerated reflexes, epilepsy, and imbecility. The cranial measurements showed morbid deficiency in the binauricular diameter and facial length. At the autopsy the left hemisphere was found much atrophied. The right cerebellar hemisphere was also atrophied. The microscopical specimens showed a decrease in the number of cortex cells, but those present were not much diminished in size. There was some loss of acuteness of the angles of the cells, but little pigmentary or granular changes. The cord was but slightly affected. He believed that this would seem to show that in some cases we may have a fair amount of normal cerebral structure even when there is such pronounced cerebral disease.

Dr. Sachs said that in the cases in which motor areas present developmental defect, degeneration does not necessarily occur.

Lesion of the Thalamus and Internal Capsule.—Dr. Charles K. Mills, of Philadelphia, contributed the notes on a case in which there was a lesion of the thalamus and internal capsule. The patient had an apoplectic attack in 1877, and died in 1892. The symptomatology of the case summarized was hemianæsthesis; paresis with contractures not marked; inability to recognize position of the affected limbs. Hemianopsia and all affections of the special senses were absent, as were also athetoid and choroid movements. Autopsy showed a hemorrhagic cyst which had destroyed about two-thirds of the substance of the thalamus, including the entire external tubercle, and a large portion of the pulvinar. The anterior extremity, and the internal and inferior surfaces of the thalamus were intact. The lesion has invaded, to a slight extent, the posterior arm ot the capsule.

Tumor of the Optic Thalamus.—Dr. Wharton Sinkler, of Philadelphia, read a paper on this subject, and presented the specimen from a case with the following history:

The patient was an unmarried woman, forty-six years of age, who was in excellent health up to January, 1893. Her first symptoms were somnolence and loss of mental vigor. Her manner was indifferent and listless. In April there was some aphasia, and, later, paresis of the right side of the face, unsteadiness of gait, and awkwardness in the use of the right hand. When first seen by him there was marked paralysis and partial anæsthesia of the right side of the face, but no impairment of sensation of the arm or leg. There was decided mental hebetude but no loss of memory. She could not walk on account of unsteadiness. The knee-jerks were exaggerated. The temperature was subnormal, and the pulse from 48 to 60. The pupils responded to light and accommodation. There was no nystagmus or hemianopsia, and no change in the fundus oculi. The symptoms increased in severity, the temperature rose rapidly, and the patient died May 25th. There had been no convulsions.

Post-mortem showed skull and membranes healthy. Cortex normal in color and consistency. The left optic thalamus was the seat of a growth as large as a hen's egg, which encroached upon the corpus striatum and posterior part of the internal capsule. The tumor has not been examined microscopically, but is probably a fibroma.

The points of interest are the hysterical symptoms which were present at the onset; the fact that the anæsthesia was confined to the face, and the question which arose as to the possibility of operation.

These two papers were discussed together.

Dr. Dana had two cases, one with tumor and another with softening in that region. Somnolence was a prominent symptom. The phenomenon of somnolence is characteristic where the posterior portion of the optic thalamus and the neighborhood of the corpora quadrigemina were involved.

Dr. Seguin observed a patient, with probable tumor in this locality, with somnolence, which was increased by the use of iodide of potash. He asked if such effect of the iodide had been observed by any of the members present.

Dr. Dana was familiar with a case where the iodide acted as a hypnotic.

Dr. Gray had noticed that iodide had produced somnolence in a case of cerebro-spinal meningitis.

Dr. Leszynsky thought that iodide only acted indirectly as a hypnotic by relieving the pains of syphilis.

Dr. Sinkler remarked that in his case the somnolence diminished after the administration of the iodide.

The Localizing Value of Aphasia.—Dr. George J. Preston, of Baltimore, read a paper upon this subject and called attention to the fact that aphasia has hardly commanded its proper place in the domain of cerebral localization. The centres for the speech processes, and the visual and auditory centres were described. In connection with word-blindness two cases of hemianopsia were related, one with autopsy, in which there was no word-blindness, as might have been expected. A case of mixed aphasia was related and the brain exhibited. The case showed absolute motor aphasia, together with word-blindness, and yet the lesion was confined to the third frontal convolution; the occipital cortex showing no disease. The general value of speech disturbance, as an aid to localization, especially in disease or injury of the brain, was discussed. A case was reported in which there was a general speech disturbance, with distinct mental symptoms; patient was at times maniacal. Upon the strength of the general disturbance of the speech processes the skull was trephined over Broca's region and the under surface of the dura found covered with blood. This case was mentioned to show how valuable speech disturbances may be, although very general in nature and not belonging to any recognized variety of aphasia.

Spinal Neurasthenia.—Dr. Leonard Weber, of New York, presented a contribution upon this subject. He objected to any single plan of treatment as too much routine, and not likely to be of permanent service to the

patient, while a proper combination of the well-known methods, based upon careful individualization, were apt to be of greater benefit. In the grave forms of neurasthenia caused by mental and physical overwork, the prognosis so far has not been good, even as to relative recovery. If the reports can be trusted it would seem that we have in hypnotic suggestion a remedy of extraordinary power in some of these cases.

In conclusion he related the history of some cases of severe neurasthenia brought about by protracted mercurial inunction, and another case caused by prolonged daily use of small doses of Carlsbad salts. Both recovered at the end of about a year.

THIRD DAY, THURSDAY, JULY 27TH.

Observations in a Case of Myxœdema.—DR. WILLIAM C. KRAUSS, of Buffalo, read a paper with this title. He reported a case of myxœdema in a woman, fifty-three years of age, whose mother was afflicted with symptoms similar to the patient's. The patient had always been in good health up to her forty-sixth year, although she had never perspired, and the secretions—as saliva, nasal mucus, and milk—were always scanty. Following upon an accident her face, body, and extremities became swollen, her hair suddenly disappeared from all parts of the body, and she was troubled with severe pains, especially through the temples, and a tired, all-gone feeling, incapacitating her for all kinds of manual labor. She further complained of a feeling of coldness even in midsummer. Her hands were dry, harsh, and scaly; her face waxy, and her eyes puffy and swollen. Her temperature ranged from 95⅘° to 97⅘° F. Her pulse, soft, regular, and uniform, varied from 81 to 88 per minute. The œdema-like swelling did not pit on pressure. Urine normal, no albumin at any time. The only drug that acted beneficially was the perchloride of iron. The author experimented with thyroid glands of sheep, feeding her for six weeks, but could detect no improvement whatever. Another case, seen in consultation, was being treated with dessicated thyroids, also without benefit.

Simulation in Traumatic Nervous Diseases.—DR. PHILIP COOMBS KNAPP, of Boston, in reading a paper with this title, said that although many men will simulate disease if it be to their advantage, we rarely find successful simulation of the various traumatic nervous affections. Until recently few cases have been reported by neurologists; most of the old cases were reported by general practitioners whose knowledge of nervous diseases was limited. In non-traumatic hysteria and neurasthenia we see many symptoms which would lead us to judge that the symptoms did not really exist. Many persons unjustly accuse the victims of these diseases of pretending to be ill, when really the malady is a serious one. Contraction of the visual field, anæsthesia, tremor, disturbances of the reflexes, circulatory disturbances, and Mannkopf's symptom are to be regarded as important objective signs. Few simulators can have intelligence enough to withstand a searching examination by a skilled neurologist. Furthermore, a man can keep his attention fixed on any subject only for a very brief time; and if he must be prepared to defend his simulation of half a dozen different symptoms, he will inevitably be tripped up by unexpected tests applied when his attention is diverted.

Three cases were cited in which the defence claimed that there was simulation, but in every case objective evidence proved the reality of the disease. Out of fifty cases where claims for damages had been brought forward, only two could be regarded as simulating, and few as exaggerating, and in most of these there was little reason to suppose any deliberate attempt at fraud.

DR. MILLS believed absolute simulation very infrequent. The cumulative exaggeration of symptoms was comparatively frequent however. A few people can simulate a type of insanity or traumatic neurosis, but cannot easily simulate all the symptoms and signs. He is in favor of the convex-lens test for amblyopia, instead of prisms in these cases. He does not consider malingering of common occurrence.

DR. GRAY thought many cases supposed to be simulating are simply offering to the trained eye symptoms indicative of possible simulation. He related a case of traumatic neurasthenia cured by $\frac{1}{12}$ grain of atropine taken for two days.

DR. FIELD considered simulation rare. Gross exaggeration was common in these cases. In almost all there is some exaggeration of the symptoms.

DR. LLOYD, regarded the symptoms of traumatic neurasthenia as nothing but the inter-paroxysmal symptoms of hysteria. Because a man develops hysteria after an accident there is no reason to believe that he must be a simulator.

DR. SEGUIN said the influence of the attending physician is often pernicious to the patient. He may not actually coach him, but he suggests. Some patients take advantage of a pre-existing morbid affection. The absence of treatment is responsible for a continuance of the symptoms of traumatic nervous affections. We should be allowed to examine these cases unexpectedly, unguardedly, and thoroughly, and not when sympathetic physicians or counsel are present. He protested against Dr. Lloyd's remarks about the unity of hysteria and traumatic neurasthenia.

DR. KNAPP, in conclusian, said that he sees cases with minor exaggeration, in contrast to Dr. Field's cases of the grossest exaggeration. He agreed with Dr. Seguin regarding the absence of treatment, but he has had a number of cases where treatment had been early and properly instituted. He could not agree with Dr. Lloyd's style of nomenclature.

DR. SEGUIN exhibited a specimen stained with 1 to 2,000 nigrosin, a method he had used years ago, but neglected to publish. One of the advantages was that specimens may be safely left in the solution for twenty-four hours.

The Microbic Origin of Chorea, with a Case.—DR. C. L. DANA, of New York, read the history of a case of chorea with autopsy. The patient was a man of twenty-six, and had had chorea since the age of fifteen. The attacks came exactly like those of the ordinary chorea of Sydenham. At first there were intermissions, but the disease finally became chronic. The spasmodic movements were general and violent. There was no heart disease or rheumatism. The patient died from exhaustion. Autopsy showed macroscopically a conspicuous chronic lepto-meningitis involving the vertex of the brain. Microscopically this was found to be mainly a proliferation process, without exudation or much cell infiltration. In the superficial layer of the cortex there was cellular infiltration and degenerative changes. At this point a diplococcus was found. Full details were given of this by Dr. Brooks, the bacteriologist. The microorganisms were found only in the deep layer of the pia and the superficial part of the cortex. In addition there was found peculiar hyaline bodies in the three outer layers of the cortex, and less numerously in the basal ganglia. There were evidences of meningeal irritation, vascular disease (arteritis), and nerve-root irritation in the medulla and upper part of the cord. The lower part of the cord was not examined.

Election of Members.—The following-named gentlemen were elected to active membership: Dr. Brower, of Chicago; Dr. Burr, of Philadelphia; and Dr. Diller, of Pittsburg. Dr. Arnold Pick, of Prague, was elected an associate member.

Papers by Title.—"The Genesis of Hallucination, Illusion, and Delusion," by H. A. Tomlinson, M.D., of St. Peter, Minn.; "The Diagnosis of General Paresis," by L. C. Gray, M.D., of New York; "A Report of Two Cases of Friedreich's Disease," by Frank R. Fry, M.D., St. Louis, Mo.: "The Metapore or Foramen of Magendie in Man and in the Orang," by Burt G. Wilder, M.D., of Ithaca; "Observations on the Relation of

Chorea to Rheumatism," by C. Eugene Riggs, M.D., of St. Paul; "Experiences in the Use of Testiculine and Cerebrine," by J. J. Putnam, M.D., of Boston; "Peripheral Paralysis after Surgical Operations," by V. P. Gibney, M.D., of New York; "Traumatic Brachial Plexus Paralysis in Infants," by William M. Leszynsky, M.D., of New York.

Election of Officers.—The officers elected for the ensuing year were: *President*, B. Sachs, M.D., of New York; *Vice-Presidents*, F. X. Dercum, M.D., of Philadelphia, and P. C. Knapp, M.D., of Boston; *Secretary and Treasurer*, G. M. Hammond, M.D., New York; *Councillors*, E. C. Seguin, M.D., of New York, and J. H. Lloyd, M.D., of Philadelphia.

In the evening a banquet was given by the Association at which nearly thirty members were present.

Correspondence.

OUR LONDON LETTER.

(From Our Special Correspondent.)

APPROACH OF CHOLERA—THE DRESDEN CONFERENCE—ABANDONMENT OF QUARANTINE—EXERCISE OF SUPERVISION—DISINFECTION—STEAM OR DRY HEAT—LAUNDRIES—THE REPORT OF THE LUNACY COMMISSIONERS—IS LUNACY INCREASING?

London, July 22, 1893.

In various parts of the Continent cases of cholera are reported, and on the 19th a steamer from Marseilles, on arrival at Cardiff, had two cases on board. They were removed to the isolation hospital, the vessel disinfected, and kept for a time under observation by the sanitary officers. During the next few weeks we are likely to have several recurrences of this sort of event, and it is during those weeks that an epidemic is most likely to establish itself. It is natural, therefore, that some anxiety should be manifested by the public. Our sanitary authorities seem to realize their responsibilities, and probably we have never before been so well prepared, and yet the abandonment of quarantine and its horrors practised by England is being followed more and more. Thus one result of the Dresden conference has been to establish the value of the British precautions against that of quarantine. In fact, a great advance in this direction has been made in Europe in consequence of the example of England in refusing to sign a convention adopting quarantine. In 1866 the Constantinople conference recommended ten days. In 1874 the Vienna meeting reduced this period to seven days; and in 1885 at Rome a period of five days was adopted. Now, we have at last agreed to a convention which leaves other nations at liberty to follow or not the example we have so long set. In this convention the minimum and the maximum of restrictions to be imposed as regards land and sea traffic and goods are duly defined, and between these limits each country will exercise its discretion. Needless to say that it is well understood that England will not exceed the minimum. Indeed our delegates had to exercise all their influence to restrict this minimum as much as possible.

A point of great importance was that relating to arrivals in infected ships. The great majority held that healthy persons ought to be placed under observation for five days. This was only accepted by England on the understanding that the supervision would only be exercised by us after these persons had returned to their own homes. Some other precautions were agreed to, the result being that, so far as the British isles are concerned, quarantine is in no way resuscitated, and on the Continent it seems in a decline.

An analogous subject to the preceding is disinfection; and on this some important observations appear in the report of the medical officer for the County of London. Every sanitary authority is required by the Public Health (London) Act to provide for proper disinfection. Sixteen districts employ steam, fourteen dry heat, and two employ a contractor who uses steam. It is at least doubtful whether this work should be entrusted to contractors, and I notice that the medical officer does not seem to favor the plan. With regard to the relative value of steam and dry heat, the following fact may be quoted: In the Chelsea dry-heat apparatus a feather-bed left in for six or seven hours only attained a temperature of 120° F. in the centre; whereas in the steam apparatus used in another district the centre of a bed left in for half an hour reached 250° F. The medical officer suggests the erection of two or three laundries in London, to which the sanitary authorities could send clothing to be boiled and returned, clean, to their owners; to which also households nursing their sick at home could send infected articles. For the disinfection of rooms sulphur continues the favorite. There are many other items of information and suggestions in this report.

Another interesting report, just issued, is that of the Lunacy Commissioners; but I have only space to notice the question of the increase of insanity. Is that real or only apparent? The question has often attracted public attention, and sometimes very sensational statements have been made. When the commissioners began their work, forty-seven years ago, there were rather more than 20,000 lunatics in asylums. Now, according to this report, there are 89,822. Of these 8,200 were private patients; 80,893 were paupers, and 729 were criminals. During the year there was an increase of 2,055 of the paupers, but a decrease of 73 of the private class, and of 8 among the criminals. This gives a total net increase of 1,974, equal to two and one-fourth per cent., since last year, which is a somewhat higher ratio than usual. The death-rate and recovery-rate were lower, which accounts for part of the increase; but deducting these and other causes, the commissioners still find a residual increase of 1,079. In explanation they observe that certain constant influences conduce to the annual increase of lunatics in our asylums, such as, 1, the large proportion of incurables among the admissions, *i.e.*, patients who do not recover and remain until they die; 2, the difficulty of obtaining homes for cases of a somewhat more favorable type, who also do not recover, but so far improve that continued residence in an asylum is not otherwise necessary. The friends are too poor to receive them, and the Poor Law Guardians reluctant. Moreover, the public has so much confidence in the asylums that many lunatics above the status of paupers are placed in them, their relatives reimbursing the guardians the cost of their maintenance. To such causes are attributed the constant accumulation of chronic cases in the asylums. With this increase there is, however, a constant decrease in the number of lunatics kept in workhouses or as resident out-door paupers. After this it is not surprising to find that in some counties there is a deficiency of asylum accommodation. The boarding-out system has been successful in Scotland, but I doubt if it will become popular in England for insane patients. The question will arise whether persons above the status of paupers ought to be registered as such and the cost reimbursed to the guardians. It would be more in accordance with the national character for independence to permit their admission to the asylums without the stigma of pauperism, on a payment that would defray the actual cost or a little more, according to the financial resources of the relatives.

THE LATEST ELECTROCUTION.

To the Editor of the Medical Record.

Sir: As one of the physicians in official attendance upon the recent electrocution of William G. Taylor, at Auburn, upon July 27, 1893, our experience may prove worthy of more than passing notice when viewed scientifically, and perhaps valuable as establishing some data regarding accidents from contact with industrial currents that are so liable to occur now that alternating currents of high tension are so generally employed.

The writer, with Drs. Conway, of Auburn, Mooney, of Syracuse, and Wright, of Skaneateles, were requested by Warden Stout to assume charge of the execution, and together with the other witnesses proceeded to the electrocution chamber at 12.40 P.M. We were barely seated when electrician Davis turned the current through the bank of incandescents resting in the chair, the voltage registering 1,260 and everything working satisfactorily. The warden now retired and immediately returned with the condemned firmly held by the arms by two keepers and followed by Rev. Fathers Netzel and Seymour, of Auburn, reciting the prayers of the dying. Taylor walked firmly and seated himself in the chair with a wonderful firmness of demeanor, and even bent his head observant of the manner in which the attendants attached his legs to the supports and arms of the chair. All retired from the platform, the signal was given, and with a crash the legs shot forward and upward, tearing the standard and entire front from the chair. For exactly fifty-two seconds this condition was sustained, and at 12.47 P.M. the current was shut off. The condemned now pitched forward, and would have fallen upon his face had he not been restrained by the straps. For twenty seconds he remained apparently dead, a slight froth oozing from the mouth below the mask, when, to our horror, he gasped. The signal was again given, but no current responded to the rapid working of the lever. At the announcement by the electrician that no current was available, Dr. Mooney stepped to the side of the victim and could feel no pulse. Perhaps thirty seconds after I found a slight thready pulse upon the opposite side. Respiration had now increased to six to the minute and the pulse became stronger. During delay incident to procuring of a cot improvement continued. We unbound him and laid him upon the cot and removed him to an adjoining room, respiration now numbering 12 or 13 and pulse 100 and full; breathing stertorous and features possessing the idiotic, vacant expression seen in apoplectic seizures. Breathing continued labored but increasing in frequency, and at half an hour after contact was 18 and pulse 120 and full. He now made the first movement of left foot and in a very few moments became restless, moving legs and arms and rolling from side to side. Dr. Conway now administered ¾ grain morphia hypodermically at 1.18 P.M. After fifteen minutes, no appreciable effect being produced, the writer applied the cone saturated with ¼ chloroform and ¾ ether. He opened his eyes and tried to object to its administration at 1.36. Forty-eight minutes after contact pulse now numbered 130 and was full and vigorous. He readily responded to anæsthetic and was placed in the chair and second contact was made at 1.55 P.M. This continued forty seconds, and examination then proved him dead from a voltage of 1,220.

Autopsy at 3.30 P.M. by Drs. Brown, who examined the thorax and abdomen, and Wright the brain; present, Drs. Conway, Mooney, and Burrel, of Canandaigua. The body measured five feet seven inches, and weighed probably one hundred and forty pounds. Was well nourished and extremely muscular. Complete absence of "rigor mortis." Slight eschar upon each temple. Extensive eschar upon calf and nearly entire circumference of right leg (not present after first contact when hypodermic was given). A peculiar condition existed in the abnormal warmth of entire right leg as compared with rest of body or even our own. Muscles upon abdominal section very firm and almost complete absence of fat, which in view of prolonged confinement, seems remarkable. Slight congestion of peritoneum and coats of bowels. Spleen, stomach, kidneys, liver, all normal. Examination of thorax showed lungs slightly congested at apex. No pleuritic adhesions. Pericardial sac contained an ounce of serum. Heart normal in size. Valves intact, but studded with minute vegetations from former endocarditis. Blood fluid throughout. Brain not congested. Dura mater firm but not adherent. Upon section appeared normal. Skull more than normally thick.

To summarize, 1,260 volts passed for fifty-two seconds through the body with entire absence of heart's action at first observation, but within a few seconds becoming marked, and entire absence of motion for exactly half an hour, and with undoubted return of consciousness within the next twenty minutes without resorting to any means for resuscitation. The unfortunate accident was valuable in teaching the authorities that in connection with electric plant established by the State, the advisability of having city system attached to the switchboard, whereby the mere turning of a switch would obviate a repetition of this accident and yet not entail the expense of a duplicate system. The chair also should be strengthened upon the front and properly braced with bolted attachments, not screwed down, as in this instance; contact should be made by properly insulated metal plates attached to the arms of the chair, the bare feet resting upon properly insulated metal plates, thereby obviating the extra resistance of hair and cranial bones, for while the abnormal muscular development in the present case might not be present again, yet no chances should be taken. Notwithstanding the objections raised by the many opponents of the system and in the face of the unforeseen combination of circumstances present in this instance, it is to-day by far superior as a scientific means of execution to any heretofore devised. Too much credit cannot be given Warden Stout for the expeditious manner in which he solved the problem and introduced other means for the completion of the mandate of the courts and so as not to prolong the agony or further torture the condemned.

J. W. Brown, M.D.

Motteville, N. Y., July 27, 1893.

POST-MORTEM CHILD-BIRTH.

To the Editor of the Medical Record.

Sir: In your issue of July 29th is an account of a "birth in a coffin." Several years ago I saw a similar case at Bellevue deadhouse.

The body of a woman had been brought to the place in a coffin, where it was left awaiting transportation to the city cemetery for interment. This was during a very hot spell in the summer.

On examination of the body, some time after it had been received, it was noticed that a child had been expelled from it. The funis was still attached, unbroken, and the placenta had not left the mother's body.

The cause of the expulsion was very evident. The gases of decomposition had distended the abdomen enormously, and without doubt exerted sufficient pressure to drive out the child. It lay between the woman's thighs, quite in the same position that it would have assumed if the birth had taken place in the ordinary way.

These cases seem to me to possess a medico legal interest. It is within the range of probability that a child delivered in this way and found in a grave, with no record of its interment there, might become a very mysterious affair, and perhaps lead to a suspicion of crime. While, in the two cases now reported, the presence of a second body is explainable, it is quite possible that under some other circumstances it would not be so easily accounted for.

Wooster Beach, M.D.

New York.

A DISTINGUISHED CANADIAN.

To the Editor of the Medical Record

Sir: Dr. Jean Lukin Leprohon, A.M., M.D., C.M., of Montreal, celebrated his semi-centennial, May 26th last, as a graduate in medicine and surgery of the Medical Faculty of McGill College, Montreal.

The subject of this sketch was born April 7th, 1822, at Chambly, Province Quebec. He received a thorough education, finishing his classical study at Nicolet College, P. Q. He then entered on the study of medicine at McGill College, graduating May 26, 1843. He then visited Europe, for further study and travel, returning to Canada in 1845, when he commenced practice.

Of the graduating class of that year but two are living —both distinguished French Canadians—Dr. Leprohon, and the Hon. Charles Boucher de Boucherville; the latter never practised, but entered politics, and has attained distinction.

Dr. Leprohon's trend was essentially scientific and literary. He founded *La Lancette Canadienne*. In 1870, he was appointed Professor of Hygiene, in the Medical Faculty of Bishop's College, Montreal. Has been a justice of the Peace; Surgeon of Militia. Is one of the founders of the Women's Hospital, Montreal, and a Consulting Physician to the Montreal Dispensary. In September, 1890, the Lieutenant Governor of the Province of Quebec appointed him a member of the Roman Catholic Council of Public Instruction for the Province of Quebec.

Dr. Leprohon, for twenty-two years past, has been a vice-consul of Spain. When the vice-consulate in Montreal was raised to the dignity of a consulate general, the then Consul General there (now of this city), Señor Don Arturo Baldesano Topete, paid Dr. Leprohon the compliment of confirming his rank—an exception to the rule, as in Spain's diplomatic service, vice-consuls are not attached to consulates general. For his care and protection of Spanish interests he was made a chevalier, and received the Decoration of the Order of Charles the Third of Spain.

In 1851, Dr. Leprohon was married to Miss R. E. Mullins, a native of Montreal. At the early age of fourteen she evinced a marked inclination for writing and literary pursuits. Her early promise was confirmed. She became an accomplished and talented authoress, whose graceful writings over the initials R. E. M. are historic in Canada.

Dr. Leprohon is in full health and active practice. To have known him is a lasting pleasure, as he is characterized by that gentleness and urbanity that invariably attracts and makes many lasting friendships.

W. N.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending August 5, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	18	5
Scarlet fever	39	4
Cerebro-spinal meningitis	8	6
Measles	169	8
Diphtheria	93	23
Small-pox	5	0
Cholera	0	0
Varciella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

Treatment of Diphtheria with Serum.—Behring (*Deut. Med. Woch*, April 27th) discusses the action and dosage of the diphtherial immunized serum, and gives the results of its trial in 30 cases. The material used in these cases was a serum to which he applies the term "normal diphtherial therapeutic serum." Of the 30 cases, 24 recovered and 6 died, a mortality of twenty per cent.—Kossel (*ibid.*) gives full details as to 11 of these cases which were treated in the Infectious Disease Institute (Koch's) in Berlin. Two of the cases died; both were very severe cases, and reasons are given for believing that in one, aged four, death was due to septicæmia; in the other, aged three, it was necessary to perform tracheotomy immediately after admission, and the patient died four days later with extensive infiltration of the wound and cyanosis. *Post mortem* it was found that the membrane had extended into the bronchi and that tuberculosis also was present. Among the 9 cases which recovered were 3 in which tracheotomy was performed. These three children were aged three, nine, and five years respectively, the last being a very severe case with albuminuria and cyanosis. In 6 cases the membrane was present chiefly on the tonsil. In estimating the value of the serum, Kossel lays stress on the fact that three out of four cases recovered after tracheotomy—a very unusually high proportion. The serum was injected under the skin of the front of the chest. In every case but one the quantity given at the first injection was 20 c.c.; at subsequent injections—and in the eleventh case on the first occasion—the quantity used was 10 c.c. The largest number of injections in any one case was five, the quantity of serum injected being 50 c.c.; in this case the injections were given on admission, on the two following days, and on the fifth day. Gentle massage of the skin was used after the injection; beyond slight tenderness at the point of injection no unpleasant effects were noted. Behring and Boer (*ibid.*, May 4th) relate experiments on guinea-pigs with sheep's serum preserved in carbolic acid. This serum was found to be effective against (1) infection shortly after (2) poisoning with the soluble products of the diphtheria bacillus. It was curative (3) in cases in which the animal was already suffering from the disease or (4) from the symptoms of diphtherial poisoning. The dose required to accomplish (3) is twenty to one hundred times that necessary for (1); for (4) about six times that for (2).—*British Medical Journal.*

Cures for Obesity.—The theory of Hippocrates was that corpulence could be cured by inciting vitality. His prescription was much exercise, fasting, no hot baths, and life in the open air. Galen favored the same treatment, with a diet of vegetable acids, aperients, and frequent baths, combined with exercise and frequent rubbing of the body with coarse towels. After this school came the physicians of a few centuries ago, who believed in bleeding. Their theory was that abstraction of blood would free the heart and work off the fat. This theory did not work, as loss of blood weakened the circulation, and a feeble circulation is one cause of obesity. Among remedies for too much fat is that of Borelli, who advised the chewing of tobacco; Fleming, who prescribed a nightly dose of soap in four ounces of water; Darwin, who suggested the use of salt; Brown, who advised the exclusive use of animal food; and of Regneller, who prescribed friction and the rubbing in of ether and laudanum over the stomach. The modern school of physicians to cure corpulence began with Banting, about thirty years ago. He reduced the diet, restricted it, and insisted on the patient's taking a great deal of exercise. There was no doubt that this method achieved results, for if a man would stop eating and take enough exercise he would either die from exhaustion or lose all his surplus weight. Banting's system worked pretty well with people of sluggish temperaments who were not subject to nervous disorders, but for nervous people the treatment was too radical.

A Delusive Advertisement.—Some crafty person recently caused to be inserted in *The Lancet* an advertisement of a medical practice for disposal, which turned out, when answered by one of its readers, to be a bait with which a matrimonial agent was angling for a possible husband in the interest of a young widow described by him in glowing terms. The glowing terms doubtless did nothing but bare justice to the widow's graces and accomplishments. The description, however, did not impress the person to whom it was sent, and he turned over the correspondence to the editor with indignant comments of his own. If the lady be wise, she will probably now adopt some less adventurous plan of bringing her personal recommendations under the notice of possible admirers.

Scarlet Fever is still very prevalent in London, and the hospitals are so overcrowded that many patients are turned away for lack of accommodations.

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Original Articles.

CHOLECYSTOTOMY, WITH REPORT OF TWO CASES.[1]

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Thirteen years ago Van Schueppel wrote:[2] "The idea of combatting permanent occlusion of the excretory (bile) ducts by surgical operation has at various times been either merely referred to or discussed in a definite shape. These discussions have hitherto led to no results." Scarcely a better illustration could be found of the fact that textbooks and encyclopædias of medicine fall so quickly behind the times as to be largely valueless a decade after publication. No cases receive more certain, safe, and enduring relief at the hands of modern surgery than do those of gall-duct obstruction.

It is the number, whereabouts, and behavior of gall-stones which determine the clinical history of these cases. Lying quietly in the gall-bladder, calculi may cause no symptoms whatever; or, at most, vague distress easily explained as dyspepsia. Nothing is commoner at autopsy than collections of stones in cases which have never been made aware of their presence. Why large numbers sometimes give no trouble, while in other cases a small number render life not worth living, or take it away altogether, is not yet explained.

A stone entering the cystic duct will promptly determine the pain characteristic of biliary colic. This pain is usually epigastric,[3] while tenderness is felt in the right hypochondrium over the gall-bladder. If the obstruction endure sufficiently long, the secretions of the inflamed gall-bladder accumulate, and a tumor is formed. The weight of this swelling may, as Riedel points out,[4] pull down the liver margin into a tongue-like process reaching below the umbilicus, and here felt with the enlarged gall-bladder behind. When found, this is most valuable as a diagnostic point. When not found, it is a colic without icterus which constitutes the sole symptomatology. The difficulty of distinguishing between this and an ordinary sharp intestinal colic or a gastralgia, has been repeatedly emphasized; yet this is often the whole case. Probably, however, time and a cathartic would enable us to rule out mere intestinal colic, while the stomach-tube might settle the question of gastric disease. Certainly no operation need be undertaken till these points can be determined.

If the stone progress to the common duct and block it, then follow the classical symptoms of bile obstruction. Jaundice, clay stools, dark urine, add themselves to the pain, tenderness and (perhaps) cystic tumor and tongue-like prolongation of the liver, which had announced the calculus in the earlier stages of its career. Clinical symptoms are not, however, always in direct ratio to local disease. They may be as stormy in a case of normal gall-bladder and small stones as in empyema with large calculi. William Osler[5] calls attention to a congeries of symptoms which he terms "Hepatic Fever," and regards as characteristic of stones lodged in the common duct. These are ague-like paroxysms, a chill, fever, sweat, with pain and gastric disturbance, and deepening jaundice. Osler is hopeless of any but surgical measures in such cases.

On this question of surgical intervention the balance of opinion favors trusting little to nature. To be sure, she does clever things. Stones lodged in the bladder or ducts may ulcerate into the outer world by direct or devious paths through the parietes, or into the intestinal canal, and so out. But nature's surgery too often stultifies itself. Post mortem records give many instances of huge monoliths reaching the gut after long stress of suffering, only to obstruct it fatally. Some twenty-one cases of intestinal occlusion from this cause have, according to Badouin's table,[1] come to operation. Sometimes, also, the ulceration tract opens into the peritoneum. With these contingencies in mind, one may be pardoned for not putting unquestioning reliance on nature and her methods.

The indications for operation now generally accepted are:[2] Chronic cholelithiasis, evidenced by steady icterus, pain, etc.; repeated attacks of colic and icterus; lasting pain, without icterus (cystic duct); retention swelling of the gall-bladder, whether empyema or hydrops. These may be summarized by saying that, whenever life is endangered or made seriously uncomfortable, operation should be considered.

Many are coming to regard the milder symptoms as good ground for operation; arguing that secondary changes, impaction, ulceration, catarrhal and suppurative biliary cystitis, even development of cancer, are thus avoided. To those who have witnessed recoveries from grave forms of cholelithiasis made without aid of surgery, this will seem extreme ground. So that here, as elsewhere, conservatism and radicalism are at strife. It is probable that few will follow this advanced teaching, and yet the responsibility which rests on him who, recognizing the presence of calculi, yet temporizes very long, cannot be avoided.

Several operation methods are at our disposal. The external incision is by some made along the outer border of the right rectus muscle; by others, parallel to the costal cartilages; while Czerny[3] recommends a ⌊ shaped cut, which allows of a flap being turned back.

The first question after exposing the gall-bladder is: Should it be opened? If stones exist, and are small and friable, they can be crushed by the fingers or the rubber-covered blades of a pair of forceps, after which the fragments escape spontaneously by the ducts. Cholelithotripsy has been done successfully by Tait, Mayo Robson, and others, and, in a limited number of cases, is safely and easily performed. But its frequent employment is of doubtful wisdom, since completeness of stone destruction can hardly be thus assured, and cholecystitis would be only a natural consequence of such manipulations.

When the gall-bladder must be incised, opinions differ as to whether it is wiser to open it at once, or to first sew it to the parietes, and open later, when adhesions will prevent escape of bile into the peritoneum. Riedel, von Winiwarter, Merkel, Levy, and others advocate the latter; Tait and a majority of operators, the former. The weight of reasoning seems against the operation *à deux temps*. For, in the first place, by sponges, gauze, etc., bile may be prevented from entering the peritoneum; and in the

[1] Read before the Medical Association of Central New York, June 16, 1893.
[2] Ziemssen's Cyclopedia, vol. ix.
[3] Smith, Charles N.: American Gynecological Journal, February, 1893.
[4] Erfahrungen über die Gallensteinkrankheit mit und ohne Icterus.
[5] Annals of Surgery, March, 1890.

[1] Quoted in Centralblatt für Chirurgie.
[2] Tait, Riedel, Robson, Czerny, Ignatow, von Winiwarter, and others.
[3] Deutsche med. Woch., No. 23, 1892.

next place, even should a little do so, no harm results. Hans Kehr[1] reports a case of pistol-ball wound of the gall-bladder flooding the abdomen with bile, without peritonitis. And Lane[2] relates another case in which, after injury, bile was poured into the peritoneum, and remained there harmlessly five weeks. It thus seems clear, as Kehr insists, that not bile, but strepto- and staphylococci are the causes of peritonitis. But, as the character of the bladder contents cannot be known beforehand, precautions are always to be taken against their escape.

The controlling objection to the *Zweizeitige Operation* is the fact that one is unable to thoroughly examine for calculus impacted in the ducts. A stone is frequently to be located only by a sound inside and a finger outside the gall-bladder, and to be removed only after incision of the duct. Dr. B. F. Curtis[3] relates a case where, on opening the gall-bladder after it had become adherent to the parietes, he found the cystic duct blocked by impacted stones. He was obliged to make a second opening in the middle line to admit his finger, between which and an instrument in the gall-bladder he could crush the stones. A calculus encysted in the gall-bladder can scarcely be removed without a supporting finger outside. Very vividly, Riedel, the most prominent advocate of the operation in two stages, relates the difficulties he has met in extracting stones from the ducts and from sacculi, after the bladder had become adherent to the parietes.

It is to avoid such embarrassments that most operators open the gall-bladder immediately. When fluid is present, it is aspirated, and the flaccid bladder-wall is grasped by catch-forceps, drawn forward, and after sterilized gauze has been packed about its sides, it is opened, and the contents removed. Search is then made of the ducts. If a stone be found there, it is pushed back into the bladder, or forward into the intestine; or, this failing, it is crushed, or removed through an incision in the duct.

All this may be simple and easy; or, when adhesions are strong and bleed fast, when the gall-bladder is so shrivelled as to be invisible and nearly indistinguishable by touch, when masses of exudate exist so thick and hard as to simulate cancer, or so involved as to require long unravelling, the operation strikes the surgeon as extremely difficult.

Cholelithotomy may be completed in two ways:

1. The incision in the gall-bladder may be sewn by Lembert sutures, the viscus dropped, and the external wound closed. This operation, which avoids an external biliary fistula, and places the patient in the same state anatomically as if he had not been operated on at all, has been ennobled by the title "Ideal Cholecystotomy." A healthy gall-bladder and the full permeability of the ducts are essential to its success—two points hard to determine. It may, firstly, be difficult to decide whether catarrh of the gall-bladder is present; and especially to foretell whether the operation, with its probings by fingers and instruments, may not be followed by a reactive inflammation, in which case the bladder will become distended and the result endangered. Parkes[4] emphasizes the likelihood of increased muco-biliary secretion after operation, and advocates a temporary fistula as a safety-valve. Whenever it is decided to do the "ideal" cholecystotomy, it will be wise to leave in the abdominal wound a good-sized drain leading to the sutured cut in the gall-bladder, as an escape for fluids in case of rupture.

The permeability of the ducts is also difficult to determine. Unless they have been dilated by calculi, it is rarely possible to catheterize them. Ferrier and Dally[5] could pass a sound only five times in twenty cadavers. Abbe[6] has sought to ascertain this essential point by ligating a syringe in the gall-bladder and injecting Thiersch's fluid through the ducts—a clever method likely to be of great use.

"Ideal cholecystotomy" is open to the further objection that incarcerated or encysted calculi may not be discoverable at the time of operation, and so are shut in beyond escape, whereas they may find exit later, if a way be left open. Dr. Arthur Cabot[1] reports a case in which, six weeks after operation, thirty stones discharged that had presumably lain in some extra-cystic cavity, whose contraction had carried them back into the bladder again.

The field of "ideal cholecystotomy" seems, therefore, limited. A majority of operators rely on:

2d, The classical cholecystotomy of Tait. Here the wound of the gall-bladder is not closed, but it is sutured to the abdominal wound, preferably not to the skin, but to the peritoneum and transverse fascia, in order to avoid a too-protracted fistula. If, owing to the shrunken state of the gall-bladder, this is impracticable, then glass or rubber tubing, perhaps surrounded by gauze tamponade, is placed against the bladder wound. Riedel[2] has proposed to utilize the parietal peritoneum in such cases, turning and suturing it so as to form a gutter through which discharges reach the surface; and Lauenstein[2] suggests using the great omentum for the same purpose. Openings made in the ducts are closed, or, if this is impossible or inexpedient, are drained. Abbe's plan of inserting into the duct wound a rubber tube, which passes through a glass one, and which may be removed later, leaving the glass in place, is worth remembering in this connection.

A fistula remains which commonly closes spontaneously. Ten years ago much was made of the damage to health by long-continued loss of bile. But experience of many cases of biliary fistula and improving health, has led to the belief that bile is mainly excrementitious. Fistulæ are a nuisance, but nothing worse.

To do away with this unpleasant sequel, substitutes for cholecystotomy have been proposed. Cholecystectomy, or complete removal of the gall-bladder, is one of these. It has been practised and recommended by Langenbuch and others. But its greater difficulty, its usual needlessness, and its higher mortality, have led to its being reserved for cases of malignant disease of the gall-bladder, or for organic occlusion of the cystic duct. It has also been employed by bold operators to rid patients of fistulæ after cholecystotomy.

In cases of impermeable *ductus communis choledochus*, an anastomosis between the gall-bladder and the intestine has been established. Thus bile which is dammed back into the bladder reaches its normal destination, the intestinal canal, and no external fistula remains. Cholecystenterostomy was suggested by Nussbaum, in 1880, and first practised by von Winiwarter in 1882. The anastomosis may be made by attaching the gut and gall-bladder by Lembert sutures. Murphy[4] uses his "buttons" for this purpose, and claims great ease and safety of performance. The connection may be made with any part of the intestinal tract, the hepatic flexure of the colon as well as the small intestine. This operation has proved very useful in closing intractable biliary fistula, and for this purpose seems preferable to cholecystectomy.

Other procedures have occurred to inventive operators. Sprengel[5] has made an anastomosis between an enormously distended duct and the intestine, and terms it choledicho-duodenostomy. And Tielewicz[5] has simply ligated and severed the cystic duct, thus retiring the gall-bladder from active duty, and leaving a mucous fistula, which, he assumes, will close spontaneously.

In reading something of the literature of gall-bladder surgery, I have observed that most practical help came to me from clinical histories detailing difficulties and means of meeting them. Let me, then, offer the history of two cases of my own.

The first was a woman about fifty years of age, whom I saw in consultation with Dr. Sheldon Voorhees. For ten

[1] Centralblatt für Chirurgie.
[2] Lancet, May 16, 1891.
[3] MEDICAL RECORD, March 7, 1891.
[4] American Journal of the Medical Sciences, July, 1885.
[5] Revue de Chirurgie, 1891, No. 8, 1892, No. 2.
[6] MEDICAL RECORD, May 6, 1893.

[1] Boston Medical and Surgical Journal, ii., 1892.
[2] Erfahrungen über die Gallensteinkrankheit mit und ohne Icterus.
[3] Centralblatt für Chirurgie, January 7, 1893.
[4] MEDICAL RECORD, December 10, 1892.
[5] Quoted in Centralblatt für Chirurgie.

years she had been a martyr to biliary colic and jaundice. The attacks had become more and more frequent and severe, jaundice was nearly constant, and the most of her time was spent in bed. Calculi had been searched for in the stools without success. No tumor could be felt. After consideration she decided to accept relief from surgery, and was admitted to the Auburn City Hospital.

On January 16, 1893, cholecystotomy was done under strict asepsis. The incision was made an inch or so from, and parallel to, the costal cartilages. A distended gall-bladder at once presented in the wound, and about one-half pint of dark gall was aspirated. The bladder, held by catch forceps and well enclosed by gauze, was then opened. Some little bile escaped into the peritoneal cavity. The most careful search failed to discover a stone in either the bladder or the ducts. This is not so very unusual. In several operations which I have witnessed in this country and abroad, no stones were found, and many such cases are reported in the journals. It may be that the last stone had been passed just before the operation; or, what seems more probable, that stones were originally present, and set up a cholecystitis. After the stones escape, the catarrh persists, and the bladder remains chronically distended, partly emptying itself at intervals of inspissated bile and mucus, with the phenomena of biliary colic.

The edges of the bladder wound were now sewed to the skin in the middle of the parietal incision, the rest of which was closed with silk-worm-gut, except where a glass drain entered, a precaution taken in view of the escape of bile before spoken of. A rubber drain was placed in the gall-bladder.

The patient did perfectly well till the third day, when she unexpectedly developed acute dysentery. Collapse on the fifth day. The disease then came slowly under control. All this while the wound did well.

With the exception of this intercurrent trouble, recovery was uninterrupted. When I last saw her, five months after operation, she expressed herself as better than in years, and had just completed her house-cleaning.

The second case was that of a woman, twenty-one years of age, married, one child a year old. Since its birth she has had attacks of biliary colic about every four weeks. The frequency of the attacks kept her in bed a good share of the time. No stones had been found in the passages, and no tumor could be detected in the abdomen. The case seemed not one of severe type, but when the patient learned that relief was obtainable by operation, she decided, after undergoing two further sieges, to enter the hospital. On admission, jaundice had disappeared, but there was tenderness over the gall-bladder, and some fever, which fell gradually.

On May 23, 1893, the abdomen was opened by the oblique incision. Gall-bladder not noticeably distended, and stones plainly felt in it. It was isolated by gauze and opened, and a half-dozen small calculi removed. One stone was squeezed from the cystic duct back into the gall bladder. The bladder opening was then sewn to the abdominal wound, and this closed. No shock, but vomiting and pain. By an oversight no rubber drain had been placed in the bladder, and on the third day its opening was found clogged with clots. On removing them and inserting a tube, free flow of bile followed, with relief to distress. A good-sized stone was washed out of the bladder on the fourteenth day. The wound was healed, when in the third week the patient developed an appendicitis which, for twenty-four hours, threatened to make her again a subject for operation, but finally subsided.

This case has interest from the fact that the pain was so torturing as to lead the patient to elect a dangerous operation as a means of relief, yet the calculi were small, and the gall-bladder healthy.

In concluding, I cannot do better than quote Ignatow's summing up, based on two hundred and seventy-eight tabulated cases:

With intense pain and evidences of duct obstruction, operate.

Ordinary cholecystotomy is the typical operation and gives lowest mortality.

"Ideal cholecystotomy" may be used in fresh cases with little change of the gall-bladder.

This and cholecystectomy have given about an equal mortality.

Cholecystectomy should be limited to malignant disease of the gall-bladder and impermeable cystic duct.

Cholecystenterostomy is advisable in occlusion of the ductus choledochus.

A CASE OF CONVERGENT SQUINT, WITH REMARKS.

By HOWARD F. HANSELL, M.D.,

PHILADELPHIA, PA.

July, 1891.—Eva B——, aged six, has had internal squint since she was four years old. There has been no noticeable increase or decrease in degree from that time. The right is the fixing eye, while the left is markedly deflected inward and apparently maintains a constant degree of deviation toward the axis of the right for all distances. When the right is covered the squint is manifested in the left, but fixation with the left is relaxed as soon as the retina of the right is allowed to functionate. The refraction was determined by retinoscopy and with the ophthalmoscope: R. $+ 2 = \frac{6}{8}$; L. $+ 2.50 = \frac{6}{18}$. The acuity of vision could not be satisfactorily obtained on account of the youth of the patient, and full correction was ordered—tenotomy of the internal recti under ether. For the remaining few days that the child was under observation the squint seemed to have been entirely cured.

April, 1893.—During the interval of nearly two years she has constantly worn her glasses. She now returns according to instructions. The squint has reappeared. The above refraction is modified by the addition of weak convex cylinders, and better vision is obtained (R. $\frac{6}{6}$; L. $\frac{6}{12}$). I again performed a double tenotomy, this time under cocaine, and with a perfect result, as in previous instance, apparently. A few days later the left was again deflected. Two failures in the same case! After several tedious examinations I was able, by means of a red and a dark blue glass, to compel Eva to acknowledge the true and false image of a candle-flame at 6 m., homonymous, and on different horizontal planes —esotropia 10°; R. hyperphoria, 4°. The right superior and left inferior recti were divided until vertical equilibrium was restored. The convergent squint was immediately replaced by a divergent squint equal to 10°.

This is a brief recital of the salient points of a case which is fairly illustrative of a most common affection, and furnishes food for reflection—unpalatable when one remembers the useless operations performed, but withal necessary for those yet to come.

Several practical questions suggest themselves.

1. Is hypermetropia the sole cause of functional internal squint?

We have accepted, and blindly, until Stevens, in his admirable and eminently practical series of articles in the "Archives of Ophthalmology," on the "Anomalies of the Ocular Muscles," opened our eyes, the explanation of Donders, that concomitant internal squint arises through excessive stimulation of the internal recti, which is a necessary consequence of the extraordinary contraction of the accommodation required to overcome hypermetropia in the attainment of good acuity of vision, and that it can be cured by correction of the optical defect only, or by tenotomy in addition to the lenses. Experience teaches us that this is sound doctrine only in a certain proportion of cases; such, for example, as those in which the squint disappears while the accommodation is paralyzed during sleep, deep narcosis, after death, or where the squint appears only while working at the near point. That the above case does not belong to this category is

evidenced by its course; it persisted under complete suspension of accommodation by atropine, and during its limitation to the normal degree of activity by the constant wearing of a full correction, nor did tenotomy of the interni, twice performed, bring about permanent improvement.

2. Is convergent squint due to a preponderance of function of the interni muscles because the muscles themselves are hypertrophied, and the normal relation between them and the externi disturbed, or are the externi abnormally weak?

That such causes are operative is well known. In long-continued squints where the vision of one eye is weakened or destroyed, either by congenital defect or accident, that eye is converged or diverged, and the contracted muscle is larger, thicker, better nourished—its antagonist thinner, pale, and wasted. But such cases do not belong to a discussion of purely functional squint. In this case the sudden appearance of divergence, in the place of a hitherto incurable convergence, upon the restoration of vertical equilibrium, shows conclusively that the previous convergence was certainly not due to an anatomical preponderance of strength of the interni, nor to inherent weakness of the externi. Moreover, the length of time the squint had been noticed previous to the first operation was too short for an atrophic process to be effective.

3. Is amblyopia an important factor in the causation of squint?

Amblyopia means in this connection dull or blunted vision without evident pathological changes, and must be discriminated from loss of vision from disease. Again, the line must be drawn between the amblyopia which can be improved by hypermetropic or astigmatic correction, which is not amblyopia at all, and that properly called amblyopia in which lenses not only do not improve but make no material difference.[1] The question might with equal fairness be transposed, thus: "Is squint an important factor in the causation of amblyopia?" so little do we know of the real nature of amblyopia. Hypermetropia, internal squint, and acquired monocular blindness may coexist. Case—boy, aged ten. R. no light perception; L. $\frac{6}{15}$ +; H. 4° in both (ophthalmoscope). Wide internal squint of right for five years. No paralysis, single or associated. There is no history of nervous disease, and the boy is well developed mentally and physically. Right, total atrophy of optic nerve and retina; left, a few small patches of chorio-retinal degeneration, nerve pale, and slightly concentrically contracted field. Very slight improvement followed double tenotomy. Or, hypermetropic and monocular acquired blindness are found without squint. Case—girl, aged eight. Right, total atrophy of optic nerve and retina; left, not involved. No history of convulsions or nervous disease. R. V. = 0; L. $\frac{6}{6}$. In both H. = 1.50. The cause in each case remains undiscovered.

Monocular congenital amblyopia is not invariably the cause of squint, even when associated with a moderate degree of hypermetropia. Case—G. C——, aged twenty-five. R. + 2.50 = $\frac{6}{6}$; L. $\frac{6}{6}$ + 2.50 by ophthalmoscopic measurement. No improvement in vision with any glass. No changes visible through the ophthalmoscope in either eye. Axes parallel.

In acquired amblyopia the visual axes may be convergent, parallel, or divergent. When convergent, the squint must be ascribed to coexisting hypermetropia and is independent of amblyopia, if parallel muscular equilibrium and equal innervation is a necessary condition; if divergent—the most common form—efforts at adduction have been relinquished and the eye is passively abducted, the direction of its axis conforming to the direction of the principal axis or the orbit. In convergent functional squint amblyopia is the rule, but it cannot logically be considered the cause or the result, neither can it be said that it is cured, even in the youngest children, by glasses or by tenotomy.

[1] Attention has been called to this subject by Dr. Gould in the Medical News of December 31, 1892.

4. Does convergent squint depend upon other muscular anomaly?

Permanent fusion or binocular fixation demands a condition approaching equilibrium of all the ocular muscles. Absolute equality of function of the acting and antagonistic muscles is rare, and stands in relation to muscular anomalies as emmetropia does to errors of refraction. When, however, the inequality of function of two opposing sets of muscles oversteps a certain limit, where the tendency becomes a reality, fusion can be maintained for a short time only, or not at all. The limit varies in different individuals, and in the same individual at different times, and depends upon the acuity of vision and refraction of each eye, and on the disposition of the patient, general health, and, perhaps, heredity. It may be stated approximately that in esophoria of 10° or more, exophoria of 8° or more, hyperphoria of 2° or more, diplopia may be elicited. The convergent squint in Eva's case was proven to depend upon a want of equilibrium of the vertical muscles. Association of hyperphoria and esophoria is, I believe, very common, but my experience has not hitherto included a case in which I could demonstrate conclusively and immediately that the esotropia depended upon hypertropia. The convergent squint resisted two double tenotomies, the wearing of a full correction for nearly two years, and disappeared only after vertical equilibrium was secured. Donders in his explanation of internal squint in hypertropia might have gone farther. The stimulation of the third pair of nerves induced by the extraordinary contraction of the ciliary muscle must involve a proportionate abnormal stimulation, and hence contraction of all the muscles of both eyes which are under the control of those nerves. Hence hypertropia may be the cause of a loss of vertical as well as of horizontal equilibrium, since it can be easily conceived from some anatomical difference in the strength of the muscles, higher error of refraction, or worse vision in one eye than in the other, that the superior rectus of one and the inferior rectus of the other may become more strongly contracted than their antagonists. Herein lies the true explanation of the unsatisfactory results of squint operations—neglect to investigate the conditions of the vertical muscles. It is within the experience of every ophthalmic surgeon to meet, not infrequently, cases of convergent squint that tenotomy had failed to cure, and cases of divergent squint which were the result of extensive division of the internal recti tendons. With scarcely a thought other than that the refraction must be corrected, the operator has followed the usual routine—atropia, glasses, tenotomy of one or both interni, and the patient dismissed. Indeed, a favorite reason for advocating the operation is that the squinting eye may be brought into line with its fellow, and the amblyopia which has arisen out of the neglect to use that eye in vision would be cured. The cure of the amblyopia is a myth, the result of the operation, excepting that comparatively few in which binocular single vision is obtained, doubtful.

To Stevens belongs the credit of insisting, in words that should be convincing, on the influence of unequal tension of the vertical muscles in the production of other muscular anomalies, and that the prevailing method of operating for the cure of internal squint is unscientific and ineffectual, and that the true explanation of the failures to give binocular fixation was not, as v. Graefe explained, "antipathy to single vision from faulty projection from the retinæ, and from the supposed difficulty of obtaining regular associated action between muscles which had long been unaccustomed to association," but that they depended upon "unequal tension of corresponding ocular muscles under the influence of corresponding nerve impulses directed to them." Stevens's doctrines have not yet received the full endorsement of the profession, but they are gradually securing a foothold, and will, doubtless, obtain the prominent place in the therapeutics of ophthalmic science that their merits warrant.

5. How shall convergent squint be treated?

The answer may be briefly stated. Let the patient ac-

knowledge diplopia, and the relation of the false to the true image will indicate the operations to be performed. If the images are on one horizontal plane—and the conclusion should not be reached after a single examination—unequal vertical tension does not exist. At first the patient will, unconsciously, refuse to see the image of the squinting eye; but if the image of the fixing eye be rendered indistinct by means of a dark-blue glass, for instance, a little perseverance, patience, and encouragement on the part of the examiner will invariably be rewarded by the patient confessing diplopia. If vertical deviation is discovered, the two lights should be brought to a horizontal plane by tenotomy of the appropriate muscles before operations on the interni are attempted. I have made Eva's case simply a text for my remarks, and other cases, not reported, have shown me the justice of Stevens's claims, and my experience has determined me in the future to observe the following precautions or rules in operating in cases of functional convergent squint.

1. To postpone operations until the patient is old enough to recognize double images of the candle-flame at 6 m., and to accurately describe their relative positions.

2. If vertical deviation of more than 2° is shown, tenotomy of the superior or inferior rectus, or both, should be the first operative procedure.

3. Careful tenotomy of both interni should follow as the second step. An operation on one internal rectus, designed to correct manifest convergent squint, is unscientific in that the physiological balance between the divided muscle and its opponent will be permanently destroyed, rotation inward of that eye will become limited, and divergence may ensue.

254 South Sixteenth Street.

ON THE INTERNAL ADMINISTRATION OF CALOMEL IN THE TREATMENT OF PSEUDO MEMBRANOUS LARYNGITIS.[1]

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Any fixed and definite method, which promises only a modicum of success, in the treatment of membranous croup, must command the respectful attention of every practising physician; in no other acute disease of childhood is the mortality so great; in no other does the hopelessness of the physician's efforts seem so manifest.

The numberless methods of treatment of this disease attest the industry with which physicians have striven to overcome the gradually increasing laryngeal stenosis which has been regarded as its greatest danger.

Venesection, veratrum viride, antimony, the emetics, vegetable and mineral, nitrate of silver solutions (ten to sixty per cent.) locally (Bretonneau and Green), medicated steam inhalations, and numberless drugs newly invented and older ones, have had their warm supporters, who have claimed for their methods a certain percentage of recoveries without operation.

Taking the consensus of opinion of recent years, the most widely popular drug in the treatment has been mercury, in the form of corrosive sublimate, in large doses, with or without the muriated tincture of iron and chlorate of potash; still more recently inunctions with blue ointment have been recommended in the treatment of laryngeal and faucial diphtheria.

It may seem superfluous to mention these different methods, but the object is to show that, after all the varying phases of treatment which an historical survey of the literature reveals, mercury to-day is essentially the drug upon which most reliance is placed by the majority of medical men.

Before speaking of the treatment by hourly doses of calomel, which will be recommended in this paper, the writer would direct attention to the characteristic clinical features of the disease in their relation to the treatment. A child, with or without discernible diphtheritic processes in the pharynx, exhibits the signs and symptoms of so-called "true croup," or laryngeal diphtheria, viz., a low, rasping inspiration; dry, brassy cough; retraction of the soft parts of the chest on inspiration; hoarseness; fever. Each symptom in this complex gradually increases in intensity; the inspiratory stridor becomes louder; expiration also becomes noisy and prolonged; the breathing meanwhile grows rapid, assuming the characteristic sawing sound; cough is more metallic and drier; the retractions become extreme; the hoarseness gives place to aphonia; cyanosis appears. The two factors productive of this condition are the closely adherent diphtheritic membrane and the inflammatory swelling of the mucous membrane and submucous tissue of the larynx.

The membrane, starting at one point, say the posterior surface of the epiglottis, extends to the upper surface of the vocal chords, invades the ventricles of Morgagni, passes on to the vocal bands, and may extend into the trachea and bronchi of smallest calibre; the glottic aperture is slowly encroached upon, until complete closure occurs and death from suffocation ensues; or croupous plugs in the bronchi and broncheoli may so limit the lung capacity that the patient succumbs. This growth of the membrane produces, in addition to the disturbances in the respiratory organs, a gradually increasing carbonic-acid intoxication and infection of the organism.

The growth of the membrane may, on the other hand, be self-limited; and when complete occlusion of the glottis seems imminent, a change in the character of the breathing is noticed; instead of the dry, sawing sound, a moist, fine râle is heard in the larynx; the metallic cough becomes moister, softer; the retractions of the soft parts of the chest become less marked; the aphonia gives place to hoarseness. The membrane having ceased to extend, has become disintegrated, soft; suppuration has separated it from the underlying mucous membrane, it has been expelled by the cough, either piecemeal or *in toto*, and slowly but surely a "restitutio ad integrum" occurs in the larynx.

The remedy, which experience has shown to have the effect on the membrane of liquefying or softening it, is therefore the great desideratum; medicated steam inhalations (lactic acid, lime-water, turpentine), and sublimed calomel (Dillon Brown) have been given with this object in view.

Calomel administered internally, in the manner to be hereafter described, has, in my experience, seemed to have this effect; and the results have been so satisfactory, that this method of treatment seems to me worthy of the highest commendation.

To a child under two and a half years, 0.05 of pure calomel is given hourly, sleeping and waking; for each year above two and a half years, add 0.02 of calomel to the hourly dose. A child of five years would therefore take 0.01 of calomel every hour. The calomel must be absolutely pure and undeteriorated; it should be given without the admixture of sugar of milk or of any sugar whatever; it may be administered, either floating on a teaspoonful of water, or if the child refuses this, because he knows it to be medicine, it may be given in milk, entirely unnoticed by the patient.

The case should be under the watchful care of a trained nurse, who must keep an accurate record, noting the slightest perceptible change in any of the characteristic signs; after one or two grammes of calomel have been given, a change in the laryngeal breathing sound should be noticed. The treatment should, and can, be instituted at the earliest possible moment after the diagnosis is made.

The writer has given a child of two and a half years, 0.06 of calomel hourly, until four grammes were taken; the patient recovered. To another child of three and a half years, five grammes were given with success. A stimulating and supporting regimen to combat the sepsis was adhered to—beef soup, white of egg, milk; Tokay wine, or whiskey, were administered alternately, at very frequent intervals.

[1] Read before the Metropolitan Medical Association, May 24, 1893.

The administration of nourishment and stimulants, half-hourly, to sustain the heart power, is of the highest importance; everything given the little patient should be palatable and easily taken, as every struggle of the child against taking food or medicine increases the laryngeal stridor, and perhaps causes the membrane to extend downward.

The use of mercury in plastic inflammations is one of the traditions of medicine; its praises have been sung by medical writers for more than a hundred years; whether its so-called antiphlogistic properties are explicable by reason of its destructiveness of germ-life, it is not for me to say. The action of calomel in croup, given as above described, bears out the old belief, in actual experience. Under its use I have seen the stridor, the aphonia, the cough, in short all the symptoms, slowly abate, showing that the membrane was gradually loosening its hold and becoming innocuous.

The advantages of calomel over sublimate are self-evident; the former is mild, non-irritating, can be taken for the necessary length of time without any other effect than a passing diarrhœa, perhaps; while the sublimate is a pronounced irritant poison which, taken in frequent doses, will cause pronounced gastro-intestinal irritation, necessitating an interruption in the treatment at a critical period.

The powder of calomel of six centigrammes is small, tasteless, and easily administered to the most obstreperous child; not so with the bichloride mixture, when given hourly. If inunctions with blue ointment have been attended by the success claimed for them in diphtheria, then mercury *absorbed into the circulation* seems to have a controlling influence over the diphtheritic infection, and its local manifestations.

For administration to children, calomel must be preferred to all other preparations of mercury, for reasons that are obvious. The danger of salivation, in my experience, is minimal; I haven't seen a case of ptyalism among the children that I have treated with calomel.

Severe diarrhœa has also been very rare. Three, four, or even five movements a day under the calomel therapy I should consider rather an advantage in this disease, provided the patient take nourishment; the sepsis is, to a certain degree, mitigated by the free action of the bowels.

Should the diarrhœa assume a severe or alarming character, the dose of calomel may be diminished, or the intervals between doses prolonged; or a starch injection, with or without a little paregoric, may be given; and if the laryngeal obstruction seems to be lessening, I would not stop the calomel altogether under any circumstances.

A very strong argument, from a pathological standpoint, in favor of the antiplastic treatment by calomel, or by mercury in any form, is found in the statistics and post-mortem examinations of Prudden and Northrup.[1] In 151 fatal cases, pneumonia was found in 104. In Northrup's article in Keating[2], in 87 cases, the larynx alone was affected in only one case; in another the membrane extended from the pharynx to the middle of the trachea; between this point and the bronchi of the fourth division nothing was to be found; from these to the finest bronchi, membrane was present; in 34 cases the membrane extended from the pharynx down to the finest bronchi. In view of this extensive growth of membrane, of what use can an inhalation be? The tidal air, which alone can carry the inhaled medicament, never reaches the finest bronchi; of what use, therefore, is any local treatment? The treatment by sublimed calomel (Dillon Brown) seems to me to be the treatment which is advocated in this paper, but in a different form. It formerly was one of the methods of mercurializing a patient, to volatilize calomel on a metal plate by means of an alcohol lamp. The treatment has the disadvantage of salivating the attendants of the child.

In mercury we have a drug, then, which, absorbed into the circulation, would seem to have a specific effect on the membranous exudation of laryngeal diphtheria; and of all its preparations, the mild chloride for administration to children is the best for easily bringing the system rapidly under its influence.

It is not claimed that recovery occurs in every case, nor am I in a position to bolster up assertions by statistics; favorable statistics would be accepted with incredulity, anyway.

The object of this paper is simply to direct your attention to a specific and definite method of treatment, which, from inquiry, I am convinced is not at all in use among physicians in this city, and which in my practice has proven eminently gratifying in a number of cases; which, if followed to the letter, will fully meet your expectations. Its simplicity, ease of application, the fact that treatment can be instituted the moment laryngeal stridor is noticed, in even the youngest child, are arguments in its favor.

Should the patient go from bad to worse, in spite of the treatment, and the symptoms assume a grave character, recourse can always be had to intubation or tracheotomy; and here I would say, although it has nothing directly in common with my subject, that early operation is to be decidedly discountenanced, be it intubation or tracheotomy. In either case a new danger is added which, in my opinion, may have been, in some cases of early operation, the cause of death.

Recovery from diphtheria of the larynx is undoubtedly possible without an operation, and the child's chance of life should not be jeopardized at the outset of the disease, to satisfy the theory of "early operation." The writer has tracheotomized children apparently at the last gasp, and has saved the life of the patient by the operation. Operation should be the *dernier ressort*. The chance of success in my experience has been just as great in late as in early operations.

A few brief histories may be of interest. In the fall of 1887, Dr. Arnim Fischer called me in consultation to see a baby, two and a half years of age, who had all the symptoms and signs of diphtheritic croup. Two children in the same family had succumbed to the disease a few days previously; the elder, aged six years, had been tracheotomized; the younger, aged four years, had been intubated by other physicians. When the third and youngest child was taken sick the parents determined to have no operation performed. I advised the attending physician to give pure calomel in doses of 0.06 hourly. A slight amelioration of all symptoms was noted after 1.0 had been given. The child recovered, having received 4.0 of calomel in all.

Another case, seen by Dr. A. Jacobi in consultation late at night, was that of a boy, three years of age, who had gray patches on both tonsils, marked sawing stridor in the larynx, with inspiration and expiration. Dr. Jacobi thought intubation indicated. The parents, when I had explained to them the dangers of the disease with and without operation, decided to wait and consented to a trial of the internal treatment. The calomel was given in hourly doses of 0.1. The stridor was slowly overcome, the dry sawing sound in the larynx gave place to the moist flapping of the loosening membrane, expectoration became copious, purulent, and the patient recovered. This patient took 6.0 of calomel in all.

I might relate case after case in which the calomel has not disappointed my expectations, in the treatment of croup, but it would not strengthen the assertions already made in this paper. These cases have been recorded for the purpose of showing how large a quantity of calomel can be taken in divided doses by young children, with impunity. No urgent signs of mercurialism occurred in any of my cases, which would have necessitated a discontinuance of the treatment, nor can I say that I noticed any bad after-effects. It is an argument against all treatment by mercurials, that their deleterious effects on the blood and tissues remain long after the disease for which they are given is past; in my opinion, a drug that prom-

[1] American Journal of the Medical Sciences, June, 1889.
[2] Cyclopædia of Diseases of Children, 1889.

ises to rescue a child from the terrible agony of death by suffocation may be given, even at the risk of incurring bad after-effects; there is ample time to treat these later and to get rid of them, but the suffocative attacks of laryngeal diphtheria don't allow much time for the consideration of after effects. The writer considers steam inhalations, in any form, an important adjunct to the treatment.

To sum up, the claims for consideration of this drug, in the treatment of laryngeal diphtheria, are based on the following grounds:

1. Mercury is to-day the one drug upon which most reliance is placed by the medical profession in the treatment of diphtheria; and from the various ways in which it is used with benefit, it probably exercises its good effect through absorption into the circulation

2. In the experience of the writer the hourly administration of 0.05 of calomel has had, in many cases, the satisfactory result of softening and liquefying the diphtheritic membrane, and of avoiding the necessity for operation.

3. The ease of administration to children, and the absence of irritation in the gastro-intestinal tract.

In closing, the writer must state that, though this method of treatment is the result of his own thought and experiment, he does not and cannot lay claim to originality, inasmuch as Dr. W. H. Daly, of Pittsburg, in a paper read before the American Laryngological Association in 1886, advocates the same treatment with great enthusiasm. Dr. Daly's paper is very brief, and in reality is simply a statement of his belief in this therapy. He, in turn, makes the admission that he is indebted for his knowledge of this method to Dr. William C. Reiter, who, in 1878, directed attention to it in a monograph "On the Treatment of Diphtheria, Based upon a New Etiology and Pathology;" nor is this the first time that the treatment was given publicity. Sidney Smith, the noted divine and essayist, by the advice of his physician, treated his grandchild for a disease which must have been, from the description, diphtheritic croup, by hourly doses of calomel, and saved its life. In gratitude to the physician he published the method to the world.

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BUFALINI'S CAMPHORATED CARBOLIC ACID AS AN ANTISEPTIC AGENT.

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It is very interesting to learn that that eminent surgeon —"the father of antiseptic surgery"—Sir Joseph Lister, has recently announced that he has returned to his first love—carbolic acid. After these many years since his first employment of it for a definite purpose of prophylaxis against the entrance of germs to fresh wounds, and for antiseptic and germicidal purposes—the birth of the "antiseptic" idea and theory—after these years of painstaking clinical experiment and bacteriological research, it is at least remarkable that the first antiseptic, used as such, should now hold the first place in the favor of so careful an experimenter and observer as Lister. All those chemical agents which have enjoyed more or less confidence in their efficiency with authorities in surgery as "antiseptics," seem, after thorough testing of their merits, to have been found wanting. To be sure the "antiseptic" theory has largely been supplanted by "aseptic" principles—the natural evolution of the primary conception of the author—but there are many surgeons who, still having much confidence in carbolic acid, find yet very many and grave objections to its employment in a general way in surgical work, especially in private practice.

Its field of usefulness, although acknowledged by its most ardent employers to be perhaps greater than that of any other permanent and staple compound combining the essential antiseptic properties, would be still greater were it not for toxicity, odor, caustic action, etc. Its employment as a germicide, in strength sufficient to be effective against pyogenic bacteria and their spores, is fraught frequently with considerable danger, and often in an infected wound is not at all possible excepting by a long and continued use in much reduced strength, in which nature plays the most important *rôle*, owing to its destructive properties to living tissue. As an antiseptic protective against the entrance of bacteria infecting a sterile wound, through the dressings, it is questionable if it does not materially impair the integrity of healthy structures rather than act kindly in promoting the process of repair.

Recently I had occasion to resort to other means than the regulation dry dressings with dusting powders—iodoform, aristol, dermatol, etc.—in treating an extensive ulcerating epithelioma whose surface covered about 600 sq. ctm. of the leg. Amputation was out of the question owing to the debility and age of the patient.

The odor, amounting to stench, the extreme irritability of the wound from exposed nerve-filaments, the deep points of ulceration, extensive absorbing surface, together with the profuse discharge, made up a condition that put my ingenuity to test. After employing "them all," together with antiseptic absorbent dressings, and almost despairing of ameliorating the sufferings of my patient, or mitigating the condition in his home, my mind reverted to Lister's first choice and last resort—carbolic acid—in the hope that perhaps it could be utilized in some form to meet the indications in so appalling a case. Certainly carbolic acid possessed the ideal properties, *i.e.*, antiseptic, deodorant, and anæsthetic, but its offensiveness was only second to that of the wound; besides, it would be required to employ it strong enough to check suppuration, in which strength it would be caustic or certainly irritating, while the extent of surface gave reason to fear possible absorption and development of toxic symptoms from prolonged use of the drug. Remembering that I had become acquainted, while engaged in the drug business, with a proprietary preparation which claims to be a fifty per cent. solution of pure carbolic acid combined with camphor, and is stated by its manufacturers to be non-irritating, the caustic properties of the acid being destroyed, I concluded to try this on the wound of my patient.

Instead of using the proprietary article I had my pharmacist make a small quantity after the formula of Bufalini, as given in the United States Dispensatory,[1] to see in what way it differed from the secret article. I found no difference in the appearance of the two preparations whatever, excepting that the one I had made in full strength was not irritating to the mucous membranes of the mouth, while the proprietary article was. I also had it made in the fifty per cent. combination, which differs only in strength from Bufalini's formula, and this was not found irritating to mucous surfaces. It is stated in the Dispensatory that this preparation retains the full antiseptic and germicidal properties of the acid without its destructive action to living tissue.

Although I have not made laboratory experiments to demonstrate the claims of its originator, yet clinically I believe it to be so. In the case I have mentioned I diluted it with fifty per cent. of cotton-seed oil, applying it directly to the ulcer and covering it with sheet cotton saturated with the same; over this was spread a dry antiseptic absorbing pad made of powdered charcoal and antiseptic wood wool, about half an inch thick, spread evenly between cheese-cloth gauze.

For cleansing purposes an irrigating solution was employed, composed of 1 to 1,500 bichloride mercury, combined with 3 to 1,000 sulphate of copper,[2] which I have found more effectual than the bichloride alone. After the accumulated secretions are fully washed away, the surface is sprayed with 15 volume peroxide of hydrogen, after

[1] United States Dispensatory, 16th edition, pp. 53 (Wood, Remington, and Sadler).

[2] Suggested by Mr. R. H. Meade, U.S.

which the application is made as described. I have been using this now for about three months in this case, with the happiest results—perfect deodorization of the wound and lessening the formation of pus.

The patient is markedly more comfortable, the irritation has been allayed by the antiseptic and local anæsthetic properties of the remedy, and the extensive breaking down of tissue has been materially checked. Only one dressing is used in twenty-four hours, yet his freedom from pain enables him to comfortably sleep throughout the night, dispensing with the use of morphia, which he had been in the habit of taking, and requiring as a substitute a mixture of bromide, chloral, and hyoscyamus, in very moderate amounts. Moreover, the household are not continually nauseated by the all-pervading odor of the offensive discharges permeating the entire house. I have also employed this valuable antiseptic in recently lacerated wounds, and found, in every case, healing promoted under one dressing by primary union.

A nice drain can be made by dipping sterilized candle-wicking into camphorated phenol. It is far superior to all forms of dusting powders in the fact that it is not decomposed by contact with the serum-albumin and liberating irritating elements to fresh wound surfaces, as in the case of the iodine derivatives. It keeps the wound moist, is absolutely unirritating—on the contrary, is anæsthetic—promoting the process of healing in the most kindly manner, and is the best protection against the entrance of bacteria I believe we have. For this reason it is used to cover celiotomy and other wounds where union by first intention is so desirable. Nor do I believe its field of usefulness is confined to that of surgery alone, for it has positive therapeutical properties in dermatology. So much am I convinced of its merits and advantages over many other much-employed antiseptic agents that I deem it worthy of report and of further trial by the vast number of eminent surgeons who are still employing iodoform, etc.

Now that carbolic acid has been adjudged by its first exponent to be the best antiseptic, the knowledge of extending its sphere of usefulness should be widely disseminated.

SYPHILIS OF THE AUDITORY CANAL, WITH REPORT OF A CASE.

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The following case was seen in the service of Dr. Harry Friedenwald: C. W——, colored, aged twenty-five, of general physical and constitutional debility, was seen for the first time during January, 1892. His history was as follows: Before Christmas an otorrhœa appeared which for a time was painless, but at the end of about one week the auditory canals became exceedingly sensitive and sore. The walls of the canals when examined were found covered with small granulations, which so blocked them as to prevent a thorough inspection of their depths. There was also a small fistula behind the left ear.

The diagnosis was at this time made as suppurative otitis media, with the production of an eczema and granulations in the canals. The case was treated accordingly in the usual manner, by syringing and by the use of topical applications; this treatment was not attended by any improvement whatever, and during the whole time the patient complained of great pain in both ears.

Subsequently (about January 20, 1892) a more careful examination was made. It was then found that granulations covered only the walls of the outer half of the canal. These granulations were very sensitive and bled very readily on manipulation. There was also a marked tendency to deep ulceration of the walls. It at once became evident that this was not a case of ordinary middle-ear disease. The granulations were strongly suggestive of soft papillary syphilides, which led to an inquiry into the patient's history, eliciting the fact that he had had a chancre on the penis and enlarged inguinal glands of the right groin, several (?) weeks before the ear trouble was noticed; these lesions had disappeared subsequently. A large margin must be left as to the time of the appearance of the local lesion, as the patient was very ignorant. After consideration of this history, the diagnosis of secondary syphilis of the external auditory canal was made. Professor G. H. Rohé saw the case at this time and concurred in the diagnosis.

The treatment was now changed to the anti-syphilitic, *e.g.*, inunctions of mercurial ointment, and insufflations of calomel. Improvement was apparent from day to day. On January 29, 1892, the canals had lost their papillary appearance and presented smooth, clean surfaces, except at the orifices, and in the fossa between the tragus and ante-tragus of one side, where there was a broad, smooth, and moderately deep ulceration, but these ulcers were improving; under continuance of the mercurial inunctions and calomel insufflations healing steadily progressed. The last visit and examination was made on February 22, 1892; both tympanic membranes were normal, the ulcers had healed, and the walls of the canals were healthy, but the tragus of the right side was partly lost.

The rapid cure under the anti-syphilitic remedies permits of no doubt as to the correctness of the diagnosis. In this case the proper diagnosis was not made immediately; but others have fallen into the same error.[1] It therefore becomes important to study this malady carefully, and to learn the characteristic features by which it may be recognized.

Syphilis of the external ear may occur as a primary, secondary, or tertiary affection; it is to the second that this paper is chiefly devoted, though several cases of the former may be mentioned, as reported by Politzer.[2] The first two are mentioned in Lang's lecture "Upon the Pathology and Therapeutics of Syphilis (Wiesbaden, 1885). In one case the true Hunterian chancre was located on the lobe of the left ear, in the other the chancre was on the anterior wall of the canal. The first was infected by using a handkerchief of a syphilitic son, the second by the endearments of a prostitute. A third case is cited, where infection took place from the bite of a syphilitic during a fight.

Secondary syphilis of the auditory canal is, as shown by statistics, a very rare malady.[3] Desprès found, among twelve hundred syphilitics, nine hundred and eighty infected with condylomata, but of these only five had syphilis of the auditory canal. Out of four thousand patients Buck[4] diagnosed thirty as syphilitic, five of whom had ulcers and condylomata of the canals. Ravogli,[5] in one hundred and forty-four syphilitics, found fifteen with middle-ear affections, and only one with lesions of the outer canals. Condylomata of the auditory canal present the same feature as in other parts of the body where they are under the influence of moisture. They form excrescences made up of many wart-like elevations, often red or pinkish in color, usually extremely sensitive, and they bleed very easily on manipulation. The canal is not infrequently rendered almost impervious by the swelling of the walls. Unless treatment is instituted early, the condylomata break down with the formation of an ill-smelling discharge, later ulcerations are formed rendering the canal so sore as to often make the movements of the jaw painful. These ulcers may destroy large areas of tissue unless healing is promoted early.

The diagnosis is comparatively easy if care is taken to examine into the patient's history, but this is more often neglected, owing to the rarity of the affection. The usual history of syphilis, *e.g.*, a local lesion some time previous, with subsequent loss of hair, enlarged glands, and

[1] Wurdemann: Archiv Otology, vol. xxi., p. 303.
[2] Politzer: Ohrenheilkunde, p. 163.
[3] Desprès: Ann. des mal. de l'oreille, etc., 1878.
[4] Buck: Ann. Journ. of Otology, 1879.
[5] Ravogli: Congressber., Mailand, 1880.

mucous patches, is a strong argument in favor of the specific origin. The presence of ulcers in the adult auditory canal should excite suspicion that they have had their origin in syphilis; and on the subject of diagnosis in this connection Buck[1] calls attention to the fact that, while in children the external canal is apt to become ulcerated by the constant flow of an irritating discharge, it rarely occurs in adults, and when it does, usually only after an extremely chronic otorrhœa.

In considering the affection it should also be borne in mind that polypi are almost always larger and more discrete, and a pedicle can often be made out on careful examination.

The diagnosis in syphilis of the external canal is very favorable, and under proper treatment stenosis rarely results.

The treatment should be both local and constitutional; constitutionally, the treatment should consist of the use of mercurials and iodide of potassa.

Politzer recommends the removal of the condylomata by silver nitrate or concentrated chromic acid, and then by brushing with corrosive sublimate (0.1 to 30.0) solution, or the tincture of iodide. Knapp advises dusting with calomel, and later one per cent solution of silver nitrate.

IODOFORM DERMATITIS

By A. HERZFELD, M.D.,

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The number of cases of iodoform poisoning resulting in constitutional symptoms is a very large one, as a review of medical literature shows; less numerous are the cases where this drug has caused in its local application affections of the skin of a more or less severe nature. All the dangers of iodoform medication have sufficiently been described, but the case in question has some points of interest which seem to make it worthy of publication, and again should call the attention of the medical profession to the dangers which can follow the use of iodoform, even in very small quantities. The case occurred in a young man, who contracted a gonorrhœa two years ago, of which he never was cured entirely. He had always had a "goutte militaire" and the shreds characteristic of a chronic affection of the urethra: a chronic anterior urethritis. He consulted a well-known physician in this city last March, who found, on examination with a bougie à boule, a stricture 3 ctm. behind the meatus. At that time a sound, No. 21 French, was passed, to dilate this constriction; on the withdrawal of the sound a considerable amount of bleeding occurred, caused by the "violent rupture of the constricting parts." About one week after the hemorrhage, a No. 25 French sound was passed without further difficulty, and causing only a slight amount of pain, but micturition was still painful at that time. To accelerate the process of healing of the wound made in the urethra, bougies of a 6.5 ctm. length were used, and of the following composition:

Iodoform	0.1
Butyrum cacao	0.3

The patient being an apothecary, the best obtainable iodoform was used and the bougies were carefully prepared. These bougies were introduced three times a day, for two days in succession, hence six in all were used, which equals 0.6 iodoform. On the morning of the third day after starting the use of the bougies, the patient called attention to a redness extending over the penis and scrotum. During the day this erythema increased rapidly, and extended toward evening, shading off into a macular eruption over the upper third of the thigh and regio pubica. A dermatitis was diagnosed and at once referred to the use of the iodoform. The skin and subcutaneous tissue over the penis and scrotum were in a state of acute inflammation. The patient remarked at that time, that he was unable to tell the scrotum from the penis. This swelling lasted three days, and on the fifth day the swelling of the parts subsided, except that of the lymphatic glands in the groin, which still were easily palpable; no constitutional symptoms appeared. To reduce the swelling of the parts, hot aqua plumbi was applied. The urine, which was examined at that time, five days after the onset, still showed gonorrhœal threads.

From the onset of the attack no further medication than aqua plumbi was used, nor any sounds passed. Ten days after the onset of this attack, and five days after its subsidence, the same erythema again developed over the same regions above mentioned, the same swelling of the parts set in. As no medication of any kind had been used, we were at a loss for its explanation. On questioning the patient, we found that he changed his underwear on the morning in question; this had not been properly washed, and pieces of the molten bougie were found still adhering to the fabric, and a strong odor of iodoform was still very apparent. Again the diagnosis of an iodoform dermatitis was made. At this time the patient developed a marked aversion to iodoform, the odor of which caused nausea and vomiting. A second attempt was made to reduce the swelling by hot aqua plumbi. On the second day the skin over the penis and scrotum ruptured in various places, and a thick, tenacious, colorless liquid exuded. The pains were distressing, and a ten per cent. solution of cocaine was applied continuously. The genitals, which were swollen about three times their normal size (testes, corpora cavernosa and spongiosum were not affected), were supported by a bandage. The exudation continued for three days, the distressing itching continuing during the new formation of the skin. But after five days the parts again took on a normal appearance. This second attack of an acute dermatitis can only be attributed to the iodoform, as no other medication was used at this time in any manner. If it had been a local sepsis caused by the absorption of discharges from the wound made in the urethra, why did it not set in sooner, but just exactly at the time when the patient changed his underwear, which still contained particles of iodoform, and the aversion to the odor of iodoform which causes nausea even at the present day, three and one-half months after subsidence of second attack? On examining the patient's urine at the present time, I still find a small number of gonorrhœal shreds, but his goutte militaire has entirely disappeared. I used lately an injection of argentum nitricum 1 to 2,000 into the anterior urethra.

Two weeks ago a furuncle developed on side of patient's neck, I opened it, and applied a moist carbolic dressing, two per cent., for two days. After this time I noticed a slight redness around the borders of the wound, and fearing a development of an eczema, I stopped the use of the carbolic acid at once, but I dusted a few grains of iodoform on the surface of wound. On my next visit I noticed a marked increase of the erythema, and the skin was in a state of acute inflammation. A typical eczema developed and continued seven days, characterized by profuse weeping, which was controlled after five days by the application of equal parts of starch and talcum. The furuncle healed under an aseptic dressing (without further treatment). The wound was washed with aqua destillata, and sterilized gauze was applied over it. This eczema I will not attribute to the use of the few grains of iodoform, as the erythema was developed undoubtedly by the use of the carbolic acid, but the iodoform may have aggravated it, as soon after its application the redness increased; the odor of the iodoform was not detected by the patient, as only a very small quantity was used and a dressing was applied over it.

In the first instance, where the bougies were introduced into the urethra, the absorption took place through the mucosa. Cutler reported two cases in 1886, where the absorption of the iodoform through the mucous membrane of the uterus in his first case, and through the mu-

[1] Buck: Manual of Diseases of the Ear, p. 100.

cous membrane of the vagina in his second, resulted both in a development of dangerous constitutional symptoms.

The second attack in our case must have been due to the absorption of the iodoform through the newly formed skin. The medium with which it was combined may have accelerated the development of its deleterious properties, as was shown in a case of Kreort,[1] where the drug caused a dermatitis only in combination with glycerine or oily substances; in the above-mentioned case of Cutler, where uterine bougies were used, each containing 0.3 iodoform (carcinoma of uterus); and similar case of Fuerst.[2] In our case butyrum cacao was used. Neisser reported two cases in 1884, where he observed the same symptom relating to the skin, and attributed it to a personal susceptibility to the drug. There is in our patient undoubtedly an idiosyncrasy to the iodoform, as up to this day he still has a marked aversion to its odor, which causes marked nausea. Fuerst reports another case (1886) where the use of the iodoform caused in the same patient an eczema every time, even "the mere odor was sufficient to do it."

At no time did our patient develop the slightest constitutional symptoms, and Taylor (1887) claims to have proven by statistics that in younger persons iodoform poisoning results mostly in affections of the skin, and in older people constitutional symptoms are developed.

Hence we see again that we have in iodoform not a harmless drug, that its odor is not its only objectionable quality, and the numerous cases of poisoning have called repeatedly the attention of the medical profession to the dangers which are connected with its use. Any attempt to find a good substitute, of which our materia medica contains a number devoid of such objectionable qualities, should be encouraged.

66 West 100th Street.

Clinical Department.

A BROKEN CATHETER IN THE URETHRA.

By WILL B. DAVIS, M.D.,

PUEBLO, COL.

Seeing the case of "A Broken Catheter in the Bladder," related by Dr. Ransom in your issue of June 24th, reminds me of an interesting case coming under my observation on September 15, 1892.

About ten o'clock on the morning of that day a gambler rushed into my office in a thorough state of alarm, holding all but about one inch of the eyelet end of a No. 12 F. gum catheter in his hand, which told its own tale. I satisfied myself by careful exploration that the broken end was still in the grasp of the deep urethra. He was a most unfavorable case for any kind of a cystotomy, and I was more than ordinarily anxious to relieve him without such an operation if possible; and inasmuch as he could urinate, notwithstanding the presence of the catheter in the urethra, I desisted from further interference at the time, but told him to go at once to his room, to remain perfectly quiet, and to eat all the water-melon he could hold, and when he felt his bladder well full of urine to come back to my office, only across the street from his room. He returned at 2 P.M., and said he could hold his water no longer. I had him empty his bladder with as much force as possible, hoping thereby to dislodge the catheter and drive it forward, but to no avail. I had him go back to his room, eat more melon, and return at five o'clock, with as full a bladder as possible. On his return I carefully passed a pair of Thompson's urethral forceps down to the broken face of the catheter, but owing to the general strictured condition of his urethra, I could not open them sufficiently to grasp anything. I therefore opened them as wide as they would bear, and withdrew them thus, hoping to dilate the urethra in front of the catheter. I then had him again expel the urine with force, when the piece of catheter came away readily, without pain or causing any subsequent inconvenience whatever.

320 Santee Avenue.

[1] Virchow and Hirsch, vol. xxiii., page 624

[2] Muenchner klinische Wochenschrift, No. 50, 1886.

PERSISTENT SINGULTUS—LAVAGE OF THE STOMACH.

By A. ERNEST GALLANT, M.D.,

ATTENDING PHYSICIAN, NORTHERN DISPENSARY, NEW YORK.

On June 1, 1893, F. B——, aged twenty three, single, German, night-baker, was referred to me at the above named dispensary, giving the following history: On May 29th he had pain and fulness in the head, with constipation. The next morning he had no appetite, and took only coffee for breakfast; he smoked three cigars during the morning, taking soup only at noon. At 5 P.M. he ate a piece of sour tongue, which was vomited about a half hour later. At 6 P.M. he ate a pickled green pepper, and soon after felt weak and dizzy. The body was covered with profuse perspiration, and he was annoyed by frequent paroxysms of hiccough. These attacks occurred through the night and for the two following days (except when asleep), and are now repeated every minute or two, being only relieved for a brief period by drinking soda-water.

The patient is of robust build, phlegmatic temperament, appetite and digestion usually good, and is feeling well in every respect except some pain in the epigastrium, and the annoyance caused by the hiccough.

The case impressed me as one of gastric origin, but having no stomach tube at hand I ordered cocaine hydrochlorate one-eighth grain, every three hours, and magnesii sulphas. half-ounce, once. This gave almost complete relief until June 3d, when the paroxysms began again. I then ordered pilocarpin hydrochlorate one-tenth grain, three times daily, as recommended by Stiller.[1] He did not hiccough during the day (June 4th), but suffered severely from it during the night. June 5th: Still hiccoughing and has vomited a greenish-yellow fluid, with much tenacious mucus, four times during the past twenty-four hours. The diet was limited to milk and vichy. June 6th: Did not work last night. Hiccough is almost as bad as ever. At 5 P.M. the stomach was washed out, requiring three quarts of warm water before the return fluid was clear and free from particles of undigested milk and very tenacious mucus. There has been no recurrence since.

In looking over the more recent literature on this subject, the best résumé of the treatment of which was given by Dr. F. W. Putnam,[2] I find no mention of lavage, though it seems to me especially fitting in cases where there are evidences of gastric irritation.

35 West Fifty-third Street.

[1] Centralbl. f. klin. Medicin., 1892, No. 42, p. 882.

[2] Trans. New York Medical Association, 1888, vol. v., p. 139.

PROCEDENTIA UTERI COMPLICATED BY PREGNANCY.

By HILBERT B. TINGLEY, M.D.,

OCEANUS, L. I., N. Y.

Having seen a case of procedentia of the uterus in pregnancy, reported in Medical Record of 15th inst., I wish to report the following case as being particularly interesting:

On May 16, 1891, I was called to see Mrs. D—— K——, of Boston, at her home in Williams Street. I found her in labor, which had commenced some hours before. Upon examination I found a tumor as large as a cocoanut, with a dry, smooth exterior, which had the appearance of normal cuticle—which proved to be the uterus. Upon questioning the patient, she informed me that she had suffered from "falling of the womb" for years, and the appearances substantiated the fact.

Upon examination, I found the os dilated to the size of a silver dollar, and as the pains did not advance the labor, I passed my hand into the uterus and found the feet presenting, which I had no trouble in bringing down and completing the labor. After some little time respiration was established in the child, which was a perfectly formed boy.

The mother made a happy recovery, and was in good condition to be operated upon in due time.

IMPERFORATE HYMEN.

By H. D. THOMASON, M.D.,
ALBION, MICH.

The case of imperforate hymen reported by Dr. Charles E. Nammack in the issue of the Medical Record, July 15, 1893, recalls a similar case in my own practice which occurred some six years ago. The husband consulted me upon the delicate question of inability to secure satisfactory sexual relations with his wife, though married for more than a year. The situation was equally distressing to the wife, and serious domestic infelicities were threatened as a result.

The wife was a buxom-looking German girl, aged twenty-two, apparently the picture of health and strength. I learned from her, however, that she had never menstruated, but had regularly, every four weeks since fifteen years of age, suffered all the symptoms of normal menstruation except the appearance of fluid. Manual examination of the abdomen revealed a tumor the size of a gravid uterus at full term, and digital examination at the entrance to the vagina demonstrated a thick, integumented bulging — an imperforate hymen. Aspiration through this tissue was resorted to, but only a pint of thick, black, unoxygenated fluid was removed; its consistency was such that it refused to run readily through the largest aspiratory needle. The following day I made a free incision, under aseptic precautions, through the hymen, with the result of the sudden removal of a gallon of thick black fluid bearing a consistency and appearance of tar—the product of seven years' accumulation of retained menses. The patient made a rapid and complete recovery, and as I frequently see both husband and patient apparently well and happy, and hear no complaints from either, it is fair to presume the results of the operation have been satisfactory to all parties.

A CASE OF DYSMENORRHŒA.

By A. H. BROWNELL, M.D.,
ONEONTA, N. Y.

The following is the report of a case of dysmenorrhœa that may possibly be similar to the case reported by Dr. Bigelow in the Medical Record of July 22d.

Mrs. D——, a German woman, twenty-three years of age, married six years, no children, began to have pain at each menstrual period about two years after marriage. The pain gradually increased in severity. She was very regular, but the flow was scanty and lasted about two days. After each period the patient felt well and was free from inconvenience until a few days before the time for the next period, when pain would be felt several times a day, quite sharp, but lasting but a few moments at a time.

When I first saw her, eighteen months ago, she had worn many kinds of supporters, had taken a large variety of medicines, but without relief. Examination showed a uterus normal in size, slightly antiflexed. So far as could be detected, there was no enlargement of the ovaries, and but little tenderness. There was slight endometritis, with stenosis of the internal os, and extreme pain upon the passage of even the smallest probe, which the patient said was like the menstrual pain. Thinking I had found the cause of the trouble in the stenosis, I dilated fully, and for the two following periods there was entire relief from pain. Then the pain returned, worse than ever.

Dr. Vander Veer, of Albany, was consulted, and finding nothing wrong other than stenosis, advised dilating again and packing with iodoform gauze.

This was done, but the patient could not endure the gauze, having all the pain of menstruation so long as it remained. A vertebrated stem pessary was tried, but could not be worn.

In February last, Dr. Vander Veer made an exploratory incision and found both ovaries were cystic, but were only slightly enlarged. He also found that both tubes were doubled upon themselves in the form of a figure 8, and the loop was distended enough to admit the end of the finger into the tube.

The patient made an excellent recovery and has had no pain since, although the menstrual flow has twice recurred since the operation.

The following questions I have not been able to solve in regard to the case: Why did the dilatation give relief? Why, with such a condition, did permanganate of potash give relief for four months and then lose its power? (This under another physician.) How could a patient, who was not in the habit of taking morphine, take three and a half grains in six hours and not feel the slightest relief therefrom, when later for another condition ⅛ grain gave relief?

During the severe pain, complete anæsthesia under chloroform was the only means I could find of relief.

A DISCHARGE FROM THE MIDDLE EAR TEMPORARILY ARRESTED BY THE REMOVAL OF ADENOID GROWTHS FROM THE PHARYNX.

By ANDREW H. SMITH, M.D.,
NEW YORK.

Dr. Buck's article in the Record of July 29th recalls to my mind a case in which the counter-irritation resulting from the removal of adenoid growths from the vault of the pharynx was apparently the cause of a temporary arrest of a chronic discharge from the middle ear.

The patient, a lad twelve years of age, had suffered for two years from middle-ear disease, with a perforation through Shrapnell's membrane. The discharge was considerable in quantity and very fetid.

He was found to have large adenoid growths in the pharyngeal vault, which were removed with forceps and scraper. Following the operation there was a rapid decrease of the discharge, and for a short time even complete cessation. But with cicatrization of the denuded surface the discharge returned, and soon became as abundant as before.

It seemed probable that the extensive wound resulting from the operation had produced such active derivation from the middle ear as to suspend the suppurative action during its continuance.

TONGUE TRACTION IN ASPHYXIA NEONATORUM.

By CHAS. G. AMENDE, M.D.,
NEW YORK.

The fact that there has been considerable discussion in some European journals upon this subject will be my excuse for referring to the following modification of the original Esmarch treatment. The infant is placed upon its side or belly, and while the thumb of the left hand of the operator rests under the chin, the index finger upon the tongue at the root, the right hand is placed upon the chest. Then the chin and tongue are drawn forward in alternation with compression of the chest.

In a case last winter the first traction was followed by a sound like a smack, attributed to a loosening of the epiglottis, previously agglutinated, as it probably always is during intrauterine life. A full cry followed a few more tractions.

Progress of Medical Science.

The Influence of Diet in Chronic Bright's Disease.—At a late meeting of the Royal Medical and Chirurgical Society (*The Lancet*), Dr. Hale White read a communication on the Influence of Various Diets upon the Composition of the Urine and the General Condition of Patients suffering from Chronic Bright's Disease. He first referred to the opinions of many authors and pointed out that they were by no means unanimous as to the best diet for patients with chronic Bright's disease. He next showed that all the *a priori* reasons which had been urged in favor of milk or any other particular diet were fallacious, and that consequently the only way to attack the problem was to carefully observe the condition of the urine and the condition of the patient upon different diets. It was very necessary not to draw deductions from too few cases; he had therefore taken ten cases of chronic Bright's disease in which the urine had been carefully analyzed every day for many weeks, so that altogether between four and five hundred analyses of it were made. In each case notes were kept also of the general condition of the patient. The following diets were tried: Milk, three pints a day, containing 1,076 grains of proteid; farinaceous, consisting of bread and milk, containing 1,137 grains of proteid; full diet, consisting of bread, butter, milk, meat, rice pudding and containing 1,522 grains of proteid; and sometimes the effect of adding fish, eggs, or more meat was tried. The following results were reached: 1. Quantity of urine. Usually more urine was secreted upon farinaceous or milk diets than upon full diet. 2. Specific gravity. The diet had no certain influence on this, but on the whole it was lower on milk and farinaceous diets than on full diet. 3. The quantity of albumin passed. The figures showed that nearly always the albumin passed was more upon milk diet than upon farinaceous and less upon full diet than upon either milk or farinaceous diet. Even in the rare instances in which the maximum quantity was passed upon full diet the excess of proteid in the full diet more than compensated for any extra loss of albumin, so that patients always best avoided loss of albumin by a full diet. 4. The quantity of urea passed. The influence of diet upon this was most uncertain; often less urea was passed upon full diet than upon farinaceous and less upon farinaceous than upon milk. Sometimes the reverse was true. 5. General condition of the patient. The cases distinctly showed that full diet was not more liable to lead to uræmia than any other; in fact, in one patient full diet appeared to ward off uræmia and the patient ultimately recovered. The patients always felt and seemed much better and stronger on full diet, or on farinaceous diet with meat or eggs added, than on milk or farinaceous diet only. Many patients loathed milk diet and greatly disliked farinaceous diet; on the other hand, they relished full diet. Dr. Hale White therefore advised full diet, for it did not lead to uræmia nor was it harmful in any way, but it saved albumin, and the patients liked it and improved on it in all respects, while they greatly disliked other diets. If the diuretic effects of milk was desired, plenty of water should be drunk.

Lympho-sarcoma.—Professor Kundrat gavê a long paper on the origin, course, and result of these new plastic growths. Commencing as an enlargement of the lymphatic glands, they do not rupture the capsule, but distend them to great dimensions. They differ from other malignant growths by their influence on the surrounding muscles and fibrous tissue. Although different glands are affected in its progress they are not generally attacked, as in the case of pseudo-leucæmia or leucæmia itself. Though the surrounding tissue and muscles are implicated, they still remain separate from the mucous membrane, but never forming a stricture or shrinking as in polypi. In some cases small glands may become fused and assume one large growth, which seldom appears in polypous excrescences. From the primary lympho-sarcoma small nodules are transported to more internal organs, which do not convey the impression of common metastasis occurring in the lymphatic paths. These secondary formations take place in organs where metastasis seldom produces neoplasms, as the stomach and bowels. In very rare cases metastasis in the liver, spleen, kidneys, and bones is absent. The lympho-sarcoma may compress the blood-vessels, producing thrombosis, marasmus, or gangrene of the organ, but never in the vessel. Lympho-sarcoma appear in middle life, very rarely in children. He relates two cases which he has met before ten years of age, and two before fourteen, but the most are between twenty-six and sixty years of age. They appear usually in the strong and healthy, and affect the male twice as often as the female. In lympho-sarcoma very seldom healed tubercular glands are present, while in pseudo-leucæmia this is not uncommon. Pseudo-leucæmia and granuloma fungoides malignum are the two diseases which it most closely approaches. The former is distinguished from lympho-sarcoma by the absence of the spleen enlargement; on the other hand, it is more atrophied, and more resembling marasmus—the marrow of the bones paler, and here and there a gall-like color. The usual site of the lympho-sarcoma is the neck, mediastinum, retro-peritoneal and mesenteric glands, very seldom the inguinal glands, and more rarely the axillary glands. They occur frequently in the lymph follicles and mucous membrane. It is worthy of note that secondary tumors may be mistaken for primary ones. The most common are those in the neck, extending to the pharynx and producing stenosis. Those originating in the follicles of the pharynx, mouth, and tonsils, are the most interesting. Those on the tongue often ulcerate and cicatrize. Those in the mediastinal glands often produce hemorrhage. The primary lympho sarcoma of the stomach appears as a diffuse infiltration, in the bowel as a follicular enlargement or infiltrated swelling surrounding it, giving a spindle-form dilated appearance. The latter phenomenon distinguishes it sharply from carcinoma where stricture occurs.—*Medical Press.*

The Alleged Contagiousness of Leprosy.—From the report of the Leprosy Commission in India, published in part in *The Lancet*, April 29, 1893, we learn that at the outset of the chapter dealing with the vexed question of contagiousness it is pointed out that because a disease depends on a pathogenic germ it does not follow that it is contagious, and malaria and pneumonia are instanced as examples of infective non-contagious disease. Flügge's dictum that the diffusion of leprosy by contagion is exceedingly rare and can only take place under special and predisposing favorable conditions condenses much of the argument contained in the report. Surprise is expressed at Hansen's contagionist attitude in view of the fact, that he himself records, of the disease dying out among the Norwegian leper emigrants in America. The Commission emphasize the necessity of separating the "abstract and scientific meaning of the term 'contagion' from the practical one," and boldly declare that the actual question of contagion is not to be settled by bacteriological and laboratory experiment. They point out that great differences in point of contagiousness exist among the infective diseases, and they regret the tendency of modern research to disregard clinical and epidemiological experience in this matter. The transmission of tuberculosis is largely, if not wholly, governed by the disposition of the individual exposed to infection. From the evidence before them the Commission conclude that "though they consider leprosy an infective disease, caused by a specific bacillus, and moreover also a contagious disease, they are of opinion that there is not sufficient evidence that leprosy is maintained or diffused by contagion; indeed, under the ordinary human surroundings the amount of contagion which exists is so small that it may be disregarded, and no legislation is called for on the lines either of segregation or of interdiction of marriages with lepers." All the instances of alleged contagion brought under their notice broke down (with one possible exception);

in no single case could contagion or the possibility of contagion be actually demonstrated in a manner free from objection ; the assumed contagion in family leprosy could only be traced in five per cent. ; it is very rare for a wife to be infected by her husband, or *vice versâ* ; there is no evidence that vaccination diffuses the disease, and "the instances quoted in literature of leprosy being 'vaccinated' on to a healthy child are too equivocal and ambiguous to carry much weight." This and other evidence of the absence of communicability among those living and mingling with leper communities are adduced as arguments in support of the above important conclusion. Once more the comparison with tuberculosis is held to be the keystone to the interpretation of leprosy.

On the Treatment of Thread-worms in Children.—In the course of a clinical lecture on "Thread-worms in Children," published in the *Clinical Journal*, Dr. Sansom says: "As regards treatment in the case of the hosts of oxyurides, the indications are (1) to expel the intruders and all their ova ; (2) to prevent the entry of ova into the alimentary tract. The total expulsion of the parasites is no easy matter. It is important to keep up for several weeks a frequent aperient action ; castor-oil, sulphate of magnesia, rhubarb, or other simple aperients may be employed for this purpose. If the parasites present at the rectum, or if there be local symptoms hereabout, an enema is decidedly indicated, but the old notion that such clyster-treatment is the plan to be adopted in all cases, is quite erroneous. The habitat of the oxyuris is not the rectum only, but the whole large intestine, in fact, its headquarters may be said to be the cæcum. It is obvious that ordinary enemata cannot reach so far. In rebellious cases special apparatus, whereby the whole large intestine can be irrigated, are recommended. Such is Hegar's tunnel system apparatus. Nothing is better as a destructive agent than warm or cold (pure) water—in water the parasites swell up and burst. A solution of soap is sometimes recommended. After a general clearance by purgatives and enemata, it is well to instruct the parents to repeat the latter about once a week, even when the child seems in good health. With this purgative line of treatment it is, in my opinion, very important that a tonic plan should be joined. Indeed I think the facts show that a double cause exists for the accumulation of these intestinal worms, and for the effects which they produce. So long as the ova of the parasites are imported into, or even by chance develop in, a healthy intestine, they manifest no ill-effects, because the vigor of the intestinal movement never allows them to accumulate. Let there be, however, from any cause, a paresis of the bowel, or a development of the mucus in which they can become concealed, and then they become the dangerous pests that I have described. The moral is: Coincidently (or commencing very shortly after the first expulsive efforts) administer iron tonics with, in some cases, strychnine or nux vomica, with a view not only of restoring the blood-making function, but of giving strength to the weakened intestines. Finally, as regards preventive treatment, without which all other means are of no avail. At the outset insist on scrupulous attention to diet. All the milk given, and all the drinking water should be previously boiled, for ova of ascaris lumbricoides can be imported by these vehicles. So, also, all the meat given should be well cooked. Especially all the food should be clean. It is through the soiled fingers of human kind that the ova are chiefly distributed ; any article of food, therefore, which passes through many hands, or is liable to be touched by dirty hands, suspect. I am very much inclined to think that brown sugar is a vehicle for importation—therefore I order white sugar to my patients. Above all, try to indoctrinate habits of strict cleanliness as regards the little patients themselves. With the view of killing the ova I order tar or carbolic-acid soap to be used for the frequent washing of the body, and I make the parents keep the children's nails short, and brush them many times a day with tar-soap water. It is undoubted that the supply of the parasite is kept up by the conveyance, by the fingers, of ova from rectum to mouth. Alas, it is not always that these lessons can be adequately enforced, though I must say that among the poor I have found rebellion against carefully expressed rules exceptional. The mothers of hospital patients are willing, for the most part, to learn and glad to be taught. You may think my precautions unnecessarily minute ; but I hold that the treatment of the affections to which I have directed your attention is on a par with the antiseptic method in surgery."

Intermittent Hydronephrosis.—Dr. Marchant has observed two cases of intermittent hydronephrosis treated differently, but successfully. The first patient that he attended suffered for some years from pain in the right flank, and on examination the presence of a bilateral salpingo-ovaritis was discovered, as well as a nephroptosis on the right side (*Medical Press*). Laparotomy was performed, and the ligaments removed. The woman made a rapid recovery. However, a short time afterward great pain was felt in the right flank, accompanied with fever and vomiting, and at the same time it was discovered that the quantity of urine had diminished by one-half, and contained some pus. The kidney was very painful to the touch, and it was remarked that it had increased considerably in volume, and was surrounded by hard swelling ; the kidney was, besides, absolutely fixed to the wall. At the end of three days the painful symptoms disappeared, the urine regained its normal quantity and ceased to be purulent, and the renal organ recovered its mobility. A few days subsequently another attack took place, so that the patient solicited surgical intervention. M. Marchant, not willing to operate a second time on a patient already weakened by laparotomy, applied Glenard's belt for floating kidney. However, for several months subsequently the patient did not cease to suffer in spite of the treatment, and finally implored an operation. Nephrectomy was performed and a calculus of the pelvis sought for, but not being found, the kidney was fixed by suture to the surrounding tissue, and the wound closed. The patient made a good recovery and never suffered afterward. The second case was that of a young girl, aged twenty, anæmic, and consumptive looking, who presented in the left side a large fluctuating and painful tumor ; the quantity of urine had greatly diminished and contained pus. Suspecting the existence of hydronephrosis with purulent infection of the cyst, nephrectomy was performed and a drain placed in the wound. The following day the patient, who emitted two quarts of urine habitually, passed less than a pint. However, by degrees the quantity attained the normal standard. Histological examination revealed the tuberculous nature of the lesions. M. Tuffier thought that the mechanism of intermittent hydronephrosis was not fully understood, but he found in two cases the ureter twisted, so that the urine could not pass. As to the choice of operation, he preferred nephropexia to nephrectomy when the kidney was not too much damaged.

Diffuse Popliteal Aneurism Caused by an Exostosis.—Terrier and Hartmann record an interesting case of diffuse popliteal aneurism. The patient was a youth of seventeen years of age, who, while dressing after a bath, was seized with severe pain in, and radiating from, the right ham, and coldness of the foot. Soon afterward a pulsating swelling low down on the inner side of the thigh was noticed. About a month after the onset of the trouble he was admitted into the Bichat Hospital and then presented a very great swelling, occupying the lower half of the thigh, the knee, and the upper part of the leg ; the pulsation in it was only slightly marked. It was diagnosed as a diffuse aneurism, and M. Terrier determined to try to save the patient's limb. Having placed an Esmarch bandage around the thigh he made a very free incision over the ham, turned out a large quantity of clot, and then found a longitudinal aperture in the popliteal artery exactly opposite, and evidently caused by, a

pointed exostosis growing from the inner supra-condyloid ridge. The injured portion of the artery was cut out, the ends of the vessel ligatured, and the wound sutured above and below a large drainage-tube. The patient made an excellent recovery and left the hospital with the full use of his limb. In this case the exostosis sprang from the bone well above the epiphyseal cartilage and was evidently an exaggeration of the irregularities met with in the supra-condyloid ridge of the femur; other less marked and less pointed projections studded the ridge. Before the operation the patient was febrile, but blood taken from the aneurism and cultivated was found to be sterile; the fever was not due to organisms, but to some products of the extravasated blood. Many years ago a similar case was recorded by Dr. Boling in the *North American Medical Chirurgical Review*. Amputation of the thigh was performed and the man recovered. Such an accident must be exceedingly rare, as, although exostoses of the lower end of the femur are quite common, they are usually too rounded and smooth to pierce an artery. In Dr. Boling's case the exostosis was a true epiphyseal outgrowth; in M. Terrier's case it was due to ossification of the tendinous insertion of the abductor magnus muscle—quite distinct morphological conditions. —*The Lancet.*

Too Much Importance Attached to the Tonsils.—In the experience of Dr. Farlow (*Boston Medical and Surgical Journal*) treatment of the nose and post-nasal space is productive of more good to the pharynx and tonsils than treatment of the tonsils is to the nose and post-nasal space. He believes that the days of wholesale slaughter of large tonsils, without regard to structures higher up, will some day have an end. He presents the following conclusions: 1. Because the tonsils are easier to see than the nose and post-nasal space is no sign that they are more important than the latter. 2. Form no estimate of the size of the tonsils unless you see them in repose. 3. Always examine the back teeth and the base of the tongue. 4. In acute follicular disease of the tonsils, look for and treat disease of the other follicular tissue in the throat. 5. Nasal obstruction, cough, and impaired voice are much more likely to be due to nasal or post-nasal hypertrophy than to tonsillar. 6. The fact that the tonsils are enlarged or diseased should lead us to look for a possible explanation in the parts higher up. 7. Free the nose and the post-nasal space in addition to, or instead of, tonsillotomy, if you wish to improve the voice and respiration.

Eclampsia in Children Induced by Hernia of the Cæcum in the Inguinal Canal.—Dr. Feurer has reported two cases of non-incarcerated hernia of the cæcum in the inguinal canal in children, attended with convulsions, and in one case terminating fatally. The first case was that of a child, six months old, in which a right-sided inguinal hernia had been observed from the sixth week. A truss had been worn, but failed of its purpose. The hernia would occasionally escape and be irreducible for days, and then finally return spontaneously. There had never been symptoms of incarceration. On one occasion the hernia could not be reduced, and symptoms of obstruction appeared, together with convulsions. Herniotomy was decided upon, but during the inhalation of chloroform the hernia was reduced by taxis. A short time later the child was again seized with convulsions, which, it was noticed, usually occurred before the bowels were moved and gas was passed, and in one paroxysm death took place, in the absence of symptoms of obstruction. Upon post-mortem examination the vermiform appendix was found in its entire length in the inguinal canal, with its extremity adherent to the testicle. There was no evidence of inflammation or of constriction of the bowel. The second case occurred in a child, five months old, likewise with an inguinal hernia that had been observed from the sixth week. For some time convulsions had occurred at the time of stool. Although the hernia was readily reducible, the experience of the previous case led to the performance of a radical operation. In the hernial sac were found the appendix, which had formed numerous adhesions, and the cæcum. The child recovered, and the convulsive seizures did not again occur.—*The Medical News.*

Jaundice in Syphilis.—At the recent German Medical Congress, Senator spoke on jaundice and acute yellow atrophy of the liver in syphilis. He said that jaundice in syphilis had been frequently described. It is to be distinguished from the usual catarrhal jaundice only by the fact that it disappears on specific treatment. From the benign course which it generally takes the morbid anatomy has not been studied. Gubler thinks that it arises from an affection of the mucous membrane of the gall-bladder. As rashes appear on the skin in syphilis, so similarly might exanthematous eruptions form on the mucous membranes of the biliary passages and lead to mechanical blocking. Others are of the opinion that lymph-glands, which enlarge as a result of syphilis, produce the jaundice mechanically by pressure on the bile-ducts. Reimers was the first to call attention to the occurrence of acute yellow atrophy of the liver in syphilitic subjects. He had observed three cases, a fact which suggests at all events some connection, in the face of the rarity of the affection. Senator had seen two cases in recent syphilis, one of which recovered. Both were in women. The cases that have been recorded in medical literature number about nine or ten, of which seven have been females. Perhaps the acute yellow atrophy is only an extension of the same process which produces jaundice. —*Berliner klinische Wochenschrift.*

Thiuret.—It is said that thiuret, with the formula $C_2H_7N_5S_2$, possesses the property of readily yielding its sulphur molecules in a nascent condition. On this depends its value as an antiseptic. It is a crystalline powder, almost insoluble in water, sparingly soluble in alcohol and in ether, and having feeble basic properties. Treated by alkalies, thiuret gives up sulphur and forms the ammoniate of phenyldithiabiuret and aniline. Heated to 105° C. in a closed tube, the salt decomposes, yielding sulphur, carbonic dioxide, ammonia, sulphuretted hydrogen, and the amyde of methylene, amidophenylmercaptan of Hoffman. Dr. F. Blum, of Frankfort, describes it as an active bactericide. He employed the hydriodide, chlorhydride, ortho-crespinate, borate, and para-sulphophenate; the last he considers the most suitable for therapeusis; it is a yellow, crystalline powder, with a faint odor, but of an intensely bitter taste, soluble in water in the proportion of three to four parts in a thousand; insoluble in alcohol, ether, and oil. Administered internally it provokes purging.

Phenosalyl.—Dr. Blanc summarizes the literature of this drug, which about six months ago was presented to the profession. It is a sirupy liquid, colorless, having an aromatic odor, very soluble in alcohol and glycerine, and in water to the extent of seven per cent. As it changes color to a brown on exposure to the light, it should be kept in blue bottles. It is made by mixing phenic, lactic, and salicylic acids in definite proportions (which are not given) at a temperature of 284° F., and after fusion adding menthol and eucalyptol, and on cooling the product is dissolved in twenty-five per cent. of glycerine. For the sterilization of instruments a two per cent. solution, five to ten minutes of contact, is sufficient. Sterilization of garments soiled by pure cultures of cholera bacillus, by immersion in a ten per cent. solution, is complete in one minute. Tuberculous expectoration is sterilized in from five to fifteen minutes by a two per cent. solution, so also are urines and putrefied blood. On the other hand, in experimental work, its administration has not resulted in the death of the animal, hence it may be considered to be of feeble toxicity. It has been employed in vaginal douches, one per cent.; in endometritis, twenty-five per cent. in glycerine; as a caustic in vaginitis, radical cure in six to eight days has followed the use of tampons wet with a two per cent. glycerine solu-

tion. In conclusion, this product appears to be more antiseptic than phenic acid, but a little less so than sublimate. On the other hand, it is infinitely less poisonous than the latter.—*Revue de Thérapeutique Médico-chirurgicale*, 1893, No. 6, p. 156.

The formula as given in the *Bulletin of Pharmacy*, 1893, No. 3, p. 118, is: Lactic acid, 31; salicylic acid, 15; menthol, 1½; carbolic acid, 140 parts. The three acids are melted, and the menthol added.—*American Journal of the Medical Sciences.*

The Lochia.—At a recent meeting of the Obstetrical Society of London, Dr. Giles read a paper on the "Lochia," giving the results of investigations on the quantity of them after labor. The conclusions derived from observations on sixty cases are as follows: 1. The average normal quantity of lochia is about 10½ oz. 2. The duration of the discharge is on the average nine or ten days. 3. The degree of parity does not influence the quantity. 4. Non-suckling does not increase the discharge. 5. The quantity is generally greater in women up to the age of twenty-five. 6. The weight of the child has a slight, and that of the placenta a well-marked influence, the quantity increasing with the weight of the placenta. 7. The quantity increases with the amount of hemorrhage at the time of labor. 8. The lochia are more abundant in the case of those who habitually menstruate profusely. 9. The quantity is generally great in the case of women of dark complexion. The difference between Gassner's results—viz., 52¼ oz —and his own—viz., 10½ oz.—is attributed mainly to the use of antiseptics and partly to the effect of astringent douching. The factors that influence the quantity of lochia were discussed. Dr. Giles believed that the three discharges—during menstruation, during labor, and during the puerperium—varied simultaneously, the quantity depending on predisposing conditions, of which the amount of pigmentation was generally an index, and that all three discharges were habitually more profuse in dark women.

Iodoform and Nitrate of Silver in Lupus.—It is stated in *The Lancet* that a Russian physician, Dr. Shlapoverski, has found the caustic action of nitrate of silver in contact with iodoform very efficacious in the treatment of lupus. In an obstinate case he scraped away all the large nodules and applied nitrate of silver, afterward covering the parts with collodion containing ten per cent. of iodoform. The treatment was renewed daily. In three months there was a decided improvement, and in seven months the parts were entirely healed. There has been no re-occurrence though more than four years have elapsed since the treatment was discontinued.

Preserving Vaccine Lymph in Hot Damp Weather.—Dr. Pedley, of Rangoon, writes to *The Lancet* that in the moist hot climate of India the great obstacle to the preservation of animal vaccine paste has hitherto been the difficulty of storing it so as to prevent its contact with the "living air." The air, at all times and especially during the rainy season, is laden with vegetable germs; one's boots acquire over night a bloom of mildew; paste or glue of any kind soluble in water becomes food for bacteria and moulds, so that book-bindings and instrument-cases, if not otherwise securely fastened, fall to pieces, and even glycerine, if exposed for a few days, affords nourishment to a luxuriant growth of black mould. The paste is prepared by thoroughly mixing the scrapings of the vesicles with glycerine, but the difficulty has been to preserve it when so prepared. The writer has tried various kinds of receptacles, such as small porcelain jars with screw lids, homœopathic vials with cork stoppers, etc., but with disappointing results. He finally hit upon the idea of using tiny collapsible pewter tubes with screw caps, and finds that they answer the purpose admirably. After the scarification has been made the screw cap is removed and immediately replaced as soon as a particle of the paste has been squeezed out of the tube. In this way it is exposed to the air for a few seconds only, and the opened end of the tube is so small that the danger of any germs lighting upon the contained paste is very slight.

The Height of Man.—A French statistician has been studying the average heights of men at different periods of the world's history and has reached some alarming conclusions. The recorded facts extend over nearly three centuries. It is found that in 1610 the average height of men in Europe was nearly 5 feet 6 inches. In 1790 it was 5 feet 6 inches. In 1820 it was 5 feet 5 inches and a fraction. At the present time it is 5 feet 3¾ inches. It is easy to deduce from these figures a rate of regular and gradual decline in human stature, and they apply this, working backward and forward, to the past and to the future. By this calculation it is determined that the stature of the first men attained the surprising average of 16 feet 9 inches. The race had already deteriorated in the days of Og, and Goliath was quite a degenerate offspring of the giants. Coming down to later time, we find that at the beginning of our era the average height of man was 9 feet, and in the time of Charlemagne it was 8 feet 8 inches. But the most astonishing result of this man's study comes from the application of the same law of diminution. It is conclusively shown that in 4000 A.D., the height of the average man will be but 15 inches, and in a few thousand years more the end of the world will come, for men will get so short that there will be nothing left of them.—*Buffalo Express.*

Treatment of Sprained Ankle.—Dr. V. P. Gibney advocates (*The New York Polyclinic*) the treatment of sprained ankles by the use of strips of adhesive plaster. Dr. Gibney owns his indebtedness for the new method to a little book by Mr. Edward Cotterell, of the University College Hospital, London. It was not until the end of 1888 that the treatment advocated in the brochure was fully digested and put into use by Dr. Gibney. He had all through his previous surgical career looked upon a sprain as a kind of mystery "not always so bad as a fracture, but sometimes more tedious," requiring fomentations for a little while, then a fixed dressing of plaster of Paris or silicate of sodium, crutches perhaps, and rest and massage afterward. He had never been attracted toward these methods, and he had come to expect a "stiffish" joint in nearly every case that came under his charge. His first case to be tried according to Cotterell's plan was that of a lady who had wrenched her right ankle severely. The usual external features of a sprain were present; no dislocation or fracture could be made out. Dr. Gibney first cut strips of rubber adhesive plaster about half an inch in width and long enough to completely encircle the foot. Then, with the foot well raised, he strapped it, the ankle, and the lower third of the leg with these strips, very much as if he had had an ulcer to treat. The first strip was carried over the outer side of the foot from near the base of the little toe. The second strip crossed the first, the third lapped over the first, the fourth overlapped the second, and so on, until at the conclusion he had practically constructed a Scultetus's bandage of adhesive strips extending far enough to include the lower third of the limb. Over this he placed a cheese-cloth bandage to help the plaster strips to adhere to one another and to make the dressing more tidy. The patient was told to put on her stocking and shoe and to walk about the room. The walking was accomplished with some diffidence, but with no real difficulty. She was made to walk the next day and went out shopping without any bad results. The recovery was without relapse, and the usefulness of the ankle-joint was unimpaired.

A Simple-Minded Man writes to an English contemporary to inquire whether it is proper for members of a medical society to consult with herbalists.

Yeast Destroys the Typhoid Bacillus, or at least takes away its power for evil, so says Dr. Springthorpe, by means of an acid which it secretes.

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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THE PUNISHMENT FOR THE CRIME OF PRODUCING ABORTION.

THIS crime has been particularly rampant in this city in the past year. A statement of the punishment accorded to it in various countries of Europe may therefore prove interesting. In England and Ireland the punishment is penal servitude for life, or a less term. Should the mother die, the crime becomes murder, which may be punished by death. In Scotland (says *The Lancet*) the punishment is arbitrary; in France, Spain, the German Empire, Austria, Hungary, Italy, Russia, Norway, Sweden, and Denmark—in short, throughout the whole of Europe—the crime is punished with imprisonment for from six months to twenty years, or for life. In Sweden the penalty is death if the mother dies; and in Russia the mother, if a consenting party, may be exiled to Siberia; in the Dominion of Canada the penalty is imprisonment for life: in Nova Scotia, Quebec, Ontario, British Columbia, and in Prince Edward Island it varies from imprisonment for two years to for life; in New Brunswick the penalty is death; in Australia and New Zealand the punishment is very severe, ranging from two years' imprisonment to penal servitude for life; in the United States it is punished with fines ranging from $100 to $5,000, with imprisonment for long periods, and with death.

There is, as will be seen, a very general unanimity of view regarding the high degree of criminality of the practice. Despite all this, the crime is increasing both in our country and in Europe. There is no doubt that this is due to the fact that many more women than formerly know of the possibility of abortion and refuse to accept the consequence of indiscretion or the responsibilities of maternity. There is but one way to look at it, however—abortion involves the destruction of one life and danger to another. Hence it is a crime never to be justified even under extreme circumstances.

It is true that many obstetricians still regard the induction of premature labor, even before the infant is viable, as a necessary measure in certain very rare cases. But the indications for it are becoming more and more restricted as medical science advances, and it is not improbable that the time is near at hand when the operation will no longer be thought of as a means of saving life. This legitimate obstetrical procedure, however, has nothing in common with criminal abortion, and medical men owe it to the community as well as to their profession to assist in limiting the work of those whose trade is infanticide. The daily papers could, doubtless, do more than any other agency toward abolishing the crime if they would consent to give up the small fees they get for advertising this class.

THE LOW DEATH-RATE OF THE TENEMENT DISTRICTS.

WE have several times called attention to the remarkable fact that the death-rate in the crowded portions of this city was really less relatively than in the more wealthy districts. This curious phenomenon has been rediscovered by Mr. Marcus T. Reynolds, who comments upon it in his prize essay on "The Housing of the Poor."

Mr. Reynolds points out the evils of crowded tenements, moral and physical; but he then shows that the death-rate of the tenement-house population of New York is slightly lower than that of the remaining population of the city, or, in other words, is highest in the houses containing the fewest inhabitants. It seems that the death-rate of persons of five years of age and over decreases with the increase in the number of tenants, while the death-rate of children under five years increases until there are more than eighty tenants to a house, after which it decreases. The explanation of Mr. Reynolds is that the tenants of the larger houses are under closer sanitary inspection, and also that the removal thence of the sick to hospitals is more frequent. He suggests, too, as a possible reason for the lower death-rate of the poorer classes that they pass much of their lives out of doors.

The hospitals are probably the most important factor in causing an apparently low death-rate in the tenement-houses. Thus in this city, to the 29,000 deaths in tenement-houses yearly, should be added most of the 9,800 deaths in institutions.

PROGRESS OF THE CHOLERA.

RUSSIA has again become the centre of interest in regard to cholera, as it was in the early part of last summer. Official returns show a great and sudden recrudescence of the disease during the past week, the number of cases reported for the week, from twelve provinces of the Empire, being 1,945, and of deaths 720. Nijni Novgorod is one of the most afflicted places. In the week ending August 13th, the fresh cases there numbered 260 and the deaths 105. In Moscow there were 47 new cases and 16 deaths on Sunday last. The increase in the number of cases is attributed in part to the intense heat which is prevailing throughout South Russia. Strict precautions have been taken on the eastern frontier by the Prussian authorities. The whole frontier has been closed except at two places, where all arrivals are examined and suspicious cases are subjected to a seven days' quarantine. A despatch from Berlin, dated August 15th, brings the news of three more deaths from cholera in that city. The disease still prevails at Sulina and Brahilov in Roumania.

Dr. Young has cabled to Surgeon-General Wyman that, as near as he can ascertain, the condition in Naples is improving. Official statistics show that during the week ending August 10th, there were 258 cases of cholera and 121 deaths from the disease in Naples. On the island of Capri, twenty miles from Naples, there were

during the same period 14 cases and 8 deaths. The disease is spreading to other coast towns, and an outbreak is reported in Campobasso, a town to the north of Naples on the other side of the Apennines. The Government has ordered that a physician and a sanitary corps accompany every train running between Naples and Rome. Signor Carloni, Director of Posts and Telegraphs, who was sent to Naples a few days ago on business, was attacked with cholera a few hours after his arrival and died on the following day.

Considerable alarm is felt in Vienna, and an official statement issued by the Sanitary Council of Austria declares that the condition of the country with regard to cholera is precarious—much more serious than it was in 1892. The Home Office sent a circular to the government officials throughout the country enjoining the strictest precautions. Cholera has broken out among navvies—mostly Italians and Croatians—building a railway at Marmaros, on the Galician frontier. Thirty-five died before the nature of the disease was recognized, and a panic seized the survivors, who fled in the direction of their homes, without even waiting for their wages. Seven cases of cholera and two deaths have occurred at Czerna-Gora, in the Carpathian Mountains in Galicia.

The Marine Hospital surgeon stationed at Antwerp has notified the Washington authorities that several cases of the disease have occurred in that city. Two deaths from cholera are reported to have taken place at Grimsby, on the North Sea coast of England.

Eighteen of the passengers on the Karamania, which arrived here from Naples on August 3d, and was detained at quarantine, have been attacked by cholera, and one has died. The passengers are still detained, but the ship, after a thorough disinfection, has been released and allowed to proceed to her dock in Brooklyn and to discharge her cargo.

A BUREAU OF PUBLIC HEALTH.

In the present number we publish the completed text of the Bill prepared by the Sub-Committee of the Quarantine Committee of the Academy of Medicine. The Bill in its present form may be said to be still a first draft, for it is the purpose of the Committee to revise it in accordance with such suggestions as may be made which shall appear to be important. The Committee seem to have very carefully reviewed all the measures which have heretofore been submitted to Congress, and to have embodied in their Bill whatever was necessary to render it complete in all of its details. We trust that all who are interested in this subject will aid the Committee with suggestions, and thus enable the Academy to perfect a measure which will receive the endorsement and support of the entire profession.

ELECTRO-THERAPEUTICS.

An interesting phase of modern therapeutics is the passing of electro-therapeutics from the hands of neurologists to those of surgeons and gynecologists. It is within the memory of some when electro-therapeutics meant neurology. The first special society for nervous diseases in this city was, if we remember correctly, a Society of Electrology and Neurology. Now the President of the American Electro-therapeutical Society is a gynecologist. We have on our exchange list three electro-therapeutical journals, all of them edited by gynecologists or gentlemen engaged more or less in this department. This change is not due to the fact that neurologists use electricity less, but that surgeons use it more. The change has been attended with some good results. There has been an improvement in electrical instruments, and particularly in our knowledge of how to use, measure, and control powerful currents. Opinions seem to differ as to whether gynecological therapeutics has been helped by the addition of electricity, but no doubt the exact status of this powerful agent will before long be determined.

RECIPROCAL RELATIONS BETWEEN THE MEDICAL BOARD AND THE BOARD OF MANAGERS IN HOSPITALS.

We have not infrequently had occasion to advert to the matter of the recognition, or to the lack of recognition, of the medical staff of a hospital by its Board of Managers. At times the latter see fit to drop—practically to expel—a faithful physician or surgeon, absolutely without cause other than that some other man wants the place; while at other times the relations between the two boards are, to say the least, most seriously strained.

It is pleasant to know that there are hospitals in which the relations are harmonious and mutually helpful, and it is with much pleasure that we call the attention of the readers of the Record to the following extract from the address made by George Macculloch Miller, Esq., President of St. Luke's Hospital, in this city, on the occasion of the laying of the corner stone of the new hospital. In the course of his remarks Mr. Miller said:

"Whatever the discoveries and progress of medicine and surgery have yet in store, whatever the benefits to result from these, let us not fail to recognize what has been accomplished through their judicious adoption and intelligent application by the physicians and surgeons, our medical and surgical staff, who, throughout its existence, with constant zeal and indiscriminating skill, have given their time and their talents to the patients in St. Luke's.

"I do not think sufficient recognition has been made of what the medical men of New York have always done, and every day in every week continue to do, for the sick poor in our hospitals; and I rejoice in this opportunity for making such recognition, as well as for presenting to the Medical Board of St. Luke's my acknowledgment that to them are due in largest measure both the credit and the thanks for the distinguished position she holds to-day among the hospitals of the country."

THE MILLENNIAL OF CREMATION.

The success of a particular form of mortuary disposal is a curious thing to celebrate. The cremationist, however, has always been something of a sentimentalist, and he has naturally felt warmly, even superheatedly, regarding his pet process. A cremation company in this city recently celebrated its one thousandth combustion. We do not know the exact nature of the celebration, except that there were speeches and flowers: the customary addition of champagne and a cold collation was probably admitted.

The company has just finished a new Columbarium. The statistics of its work are interesting. Up to the present time 1,010 persons have been cremated, classified as follows: 650 men, 270 women, 53 boys, and 35 girls. Of the total number, only 335 were native Americans. The others were of many nationalities. Germany led with 510, England was next with 34, and other countries were represented by one or a few.

There is no doubt that the agitation over cremation has done some good by calling attention to the possible dangers of cemeteries.

The actual danger of the cemetery and of earth burial, however, has never been demonstrated. It will be quite possible to bury a person safely for many years to come.

News of the Week.

American Electro-Therapeutic Association.—The following is the preliminary programme of the American Electro-Therapeutic Association, which will hold its third annual meeting in Chicago, September 12th, 13th, and 14th:

Discussions.—"What are the Possibilities of Electricity in the Treatment of Fibroid Growths?" Discussion will be opened by Dr. J. H. Kellogg, of Battle Creek, Mich. "The Influence of Frequency of Interruptions and Character of Induced Current Waves upon Physiological Effect." Discussion will be opened by Professor J. W. Morton, of New York.

Papers.—"The Nutritional Effects of Statical Electricity," by Professor W. J. Morton, M.D., of New York; "Electro-medical Eccentricities," by Newman Lawrence, M.I.E.E., of London, England; "The Graphic Study of Electrical Currents in Relation to Therapeutics," by J. H. Kellogg, M.D., of Battle Creek, Mich.; "The Action of the Continuous Current within the living Tissues, as distinguished from the Local Polar Action," by Professor W. J. Herdman, M.D., of Ann Arbor, Mich.; "The Therapeutic Application and the Theory of Alternating Currents," by Dr. Georges Gautier, of Paris, France; "The Treatment of Fibroid Tumors with Electricity," by Dr. Georges Gautier, of Paris, France; "Induction Coils," by Mr. A. E. Kennelly, of the Edison Laboratory; "Electrolysis in Tumors of the Bladder," by Robert Newman, M.D., of New York; "The Present Position of Electricity in the Treatment of Ectopic Gestation," by A. Brothers, M.D., of New York; "Electro-Therapeusis in Salpingitis," by W. B. Sprague, M.D., of Detroit, Mich.; "Report of a Case of Ascites cured by Galvanism," by Holford Walker, M.D., of Toronto, Canada; "The Primary Action of the Galvanic Current on the Blood. It increases the Amount of Ozone it contains, as shown by Chemical Tests of the Blood in the Arteries," by J. Mount Bleyer, M.D., and M. M. Weil, M.D., of New York; "The Conservation of Energy as a Successful Factor in Electrotherapy," by Horatio R. Bigelow, M.D., of Philadelphia; "Synovitis treated by Cataphoresis," by F. H. Wallace, M.D., of Boston, Mass.; "The Use of Static Electricity in the Treatment of Incipient Insanity," by W. F. Robinson, M.D., of Albany, N. Y.; "Further Study of Electrical Anæsthesia and Frequency of Induction Vibration," by W. F. Hutchinson, M.D., of Providence, R. I.; "The Absorption of Fibroid Tumors by Mild Electric Currents," by R. J. Nunn, M.D., of Savannah, Ga.; "Some Observations on the Fine Wire Coil or Current or Tension," by H. E. Hayd, M.D., of Buffalo, N. Y.; "The Treatment of Subinvolution by Electricity," by C. G. Cannaday, M.D., of Roanoke, Va.; "Successful Treatment by Electrolysis of four Additional Cases of Œsophageal Stricture, with Exhibition of Two Cases," by D. S. Campbell, M.D., of Detroit, Mich.; "The Treatment of Dysmenorrhœa by the Galvanic Current," by A. Lapthorn Smith, M.D., of Montreal, Canada; "Notes upon some Uses of Galvanism in Surgery," by W. B. D. Beaver, M.D., of Reading, Pa. Several other papers of equal interest have been promised, but the titles have not yet been received. MARGARET A. CLEAVES, *Secretary*

Yellow Fever.—The State Health Officer of Florida has been investigating the two cases in Pensacola which were reported as yellow fever by the Escambia County authorities, and announces that there was nothing in the clinical history or post-mortem findings of one of the cases to justify the diagnosis of yellow fever, and that the other was at the most only suspicious. No new cases have appeared in Pensacola, and every possible precaution has been taken by the army and navy authorities to protect their respective detachments at that point. Dr. Branham, of the Marine Hospital Service, who had just been ordered to Brunswick, Ga., to take charge of the quarantine station at that point, was taken ill soon after his arrival with symptoms suggesting yellow fever. Charleston has ordered a quarantine against Brunswick and other cities in which suspicious cases have occurred, as a precautionary measure. One hundred and twenty-six deaths from the disease were reported in Havana during July.

A Possible Cause for Appendicitis.—Dr. C. F. Crehore offers, in the Boston *Medical and Surgical Journal*, a suggestion accounting for the present prevalence of appendicitis. Looking beyond food and clothing as etiological factors, he finds in one particular a condition of recent origin which may possibly explain in some degree the frequency of the disease. This is "the comparatively recent and very general introduction of methods of physical culture and the resultant growth of athletic sports. Calisthenics, as generally taught, appear harmless enough; but many of the postures involved cause a good deal of abdominal pressure. It goes without saying that where an overloaded ascending colon is subjected to such pressure, a portion of the fluid matter entering from the ileum might be forced downward into the appendix and be the cause of serious disturbance. The danger from such a contingency would naturally be increased in the more violent gymnastics and the rougher atheletic games—as base-ball or foot-ball, rowing, polo, and the like. The position of the modern bicyclist when riding seems very favorable to an injury of that description."

Hypnotism in Russia.—An official notice has been issued in Russia that "physicians shall have the right to make use of hypnotism in the treatment of their patients. In every case of the application they must inform the administrative authorities, at the same time giving the names of the physicians in whose presence the patient was hypnotized."

Dr. R. F. Dill, for several years Professor of Midwifery in Queen's College and coroner for Belfast, died in that city at an advanced age on July 17th.

Centenarians.—The deaths of three persons, each over one hundred years old, were recently announced in an issue of the Philadelphia *Press*. One died in Collinsville, Mass., at the age of one hundred and seven years, a second in Taunton, Mass., aged nearly one hundred and one, and the third in Springfield, O., aged one hundred and three years. All were women, and all married, one being survived by her husband.

Dr. Mathias Wolf, of Brooklyn, died a short time ago from an overdose of morphine, taken, it was supposed, with suicidal intent.

To be Buried Alive.—A "mind reader" in Illinois has published his intention to be buried alive and remain in the ground while a cup of barley is being grown over his grave. He has read of the Man with the Broken Ear, and thinks he can give him points on his peculiar specialty.

Queen Victoria was recently reported to have had a stroke of apoplexy, but the news was contradicted the next day and the assurance was given out that her Majesty was in fine health and enjoying life in a quiet way in the Isle of Wight.

Dr. J. B. Burneson, of Luzerne, N. Y., was killed by being thrown from his buggy in a collision with a runaway farmer's wagon, on August 12th. Dr. Burneson was President of the Warren County Medical Society. He was seventy years of age, and had practised in Luzerne since 1854. He leaves a widow and one son.

Johns Hopkins University.—The appointments to the Medical Faculty of this University have recently been announced by President Gilman. The medical school will open on October 2d, and women students will be admitted on the same terms as men.

A New Hospital for Women.—It is said that a philanthropic lady of this city is negotiating for a plot of ground of the area of three ordinary lots upon which to erect a hospital for the accommodation of poor women suffering from diseases peculiar to their sex.

Human Remains for Refining Sugar.—A daily paper of this city published not long ago a despatch from Mexico in which it was stated that among the large shipments of bones from Mexico to the United States recently made for fertilizing and sugar-refining purposes, were ten car loads of human bones, said to have been obtained from ancient mounds in Southern Mexico, but more probably gathered from various old and abandoned cemeteries. As these bones are fragments from different skeletons, fifty thousand individuals are represented in the lot. The despatch doesn't say whether this particular shipment was designed for use as fertilizing material or for refining sugar.

Cost of the "Gold Cures."—The County Commissioners at Denver, Col., recently advertised for bids for treating the inebriates under their care, in accordance with a new law under which the commissioners are authorized to send indigent drunkards to some reputable gold cure institution. One institute offered to cure drunkards at the rate of $60 a head, and victims of the opium and kindred habits at $75. Another bid $33 per week, or offered to furnish the medicine at $20 and allow the county to attend to the patients. The Keeley-cure people bid $25 per week, while a fourth company desired to sell a formula for $500, and would instruct a physician in the art of using the medicine. The commissioners could not decide upon the merits of the different bids, so the indigent drunkards still get drunk when they can beg, borrow, or steal the wherewithal.

Dr. S. J. F. Miller, surgeon at the Soldiers' Home, Tongus, Me., died on August 7th, after a long illness, aged fifty-six. He served through the rebellion as surgeon of the Fifth Kentucky Infantry, and was in charge of the Loyal Legion Hospital at Louisville. After the war he practised in Cincinnati. He was superintendent of the Dayton, O., Insane Asylum, and surgeon of the Soldiers' Home at Milwaukee, and was transferred to Tongus six years ago.

The Tariff on Duelling in Russia.—Duelling in Russia has become so common that the Government has just decreed a severe code of punishment. Killing an antagonist will cost six years in prison: severe wounding, three years; duel without injury, six months; provoking a duel, six weeks to three months.

Mr. Ernest Hart and American Medicine.—Mr. Hart writes to the *British Medical Journal*: "I am returning from my short visit to the United States, as the guest of the American Medical Association, with a mind richly stored with pleasant memories and new impressions. The frank and cordial greetings of such large bodies of representative members of the profession from all parts of this vast continent, their self-respecting originality, their marked regional individuality, the friendly but distinctive competition for progress and leadership of North, South, East, and West, leave upon the mind a succession of vivid pictures which no words or anything short of observation can convey and impress New York with its wealth of clinical material, its largely developed hospitals and schools, and its prosperous practitioners and consultants, has a certain leadership which some think too self-confident, with its roots not yet deeply set. Boston cultivates with proud reserve and academic polish traditional thoroughness and a high university culture. But neither Boston nor New York were well represented at the Milwaukee Congress, from causes which have some interest beyond the American continent, and of which I propose to make a further study before undertaking to discuss them in detail. Before they can be removed—and all agree that in the interest of professional union they ought to be removed—some constitutional changes will be obviously needed. The present is rather a critical period in the development of professional life in America; there is a tendency to sectional caucussing and special 'congresses,' which is threatening to limit the usefulness of much scientific activity; it deprives the 'physicians,' the 'surgeons,' the 'laryngologists,' and so forth, of the power for good which comes from mutual and common intercourse, and the cultivation of a sense of unity and affection, amiable criticism, and common effort at the united congress, in which work is carried on in sections, but on one foundation. So much sectional difference has been aroused, and the organization of the annual sectional congresses all over the States has been so assiduously developed, that

some difficulty may be found in restoring unity of sentiment and action. Nowhere, however, could the results be more valuable than in America of a common understanding on the relations of the profession to the public and of their duties to each other. Nowhere does there exist a stronger need or a more useful sphere for medical thought and knowledge in guiding municipalities and executive officers in questions of public health and the government of public institutions, the endowment of science and the maintenance of adequate standards of education and examination. The future of the higher life in America and the development of culture and mental progress, the struggle against commercialism and the blinding and corrupting worship of the dollar, lies largely with the professional classes. The medical tradition is essentially a protest and an antidote against this curse of new communities. The most superficial observer from without must see that this great attribute of medicine and this high duty and privilege are recognized and brought into play in very different degrees in the various centres of the United States. The newest settlements and States are far from being the least developed in this respect. Chicago is laying wide and deep the foundations of its literary and scientific education. Two great and richly endowed public libraries—one with a limitless supply of medical literature—are already endowed with munificent incomes. The Rush College is of ancient fame, but is being largely extended; the Armour Institute and the Chicago University are springing into great efficiency and importance. Chicago has one of the best, if not the best, schools of pharmacy in America. Three thousand college students already throng her gates, and the munificence of her citizens is fast supplying them with solid and complete means of study and incitement to research. In the South, Baltimore has model institutes and typical hospitals to boast; Philadelphia, which aims at rivalling New York on a quite separate eminence, is not likely to be left behind. The Californian is the 'man of the future,' and is coming every year more to the front."

Very True.—The *Weekly Medical Review* says: "However, while we may look forward to great improvements in sanitary measures, keeping away epidemics which in former years have decimated nations, it will be impossible to say if the appearance of new diseases, more or less due to the effects of modern civilization, will not do what former epidemics have done, namely, remove from this world those individuals whose tissues are weakened to such an extent as not to be immune toward disease germs, or, if the latter have taken a foothold, to readily overcome an attack of disease."

Competition for a Hospital Position.—There is competition for hospital positions in Berlin which is even more keen than that in New York. The vacancy on the staff of the Moabit Hospital left vacant by the death of Dr. Guttmann has been filled by the appointment of Dr. Renvers, who was selected out of over fifty applicants.

A Curious Medico-Legal Contest.—On June 21, 1893, the case of Mrs. Margaret Powers *vs.* Dr. Dudley S. Reynolds, of Louisville, Ky., was decided in favor of Mrs. Powers, who had sued the doctor for a sum of money—the principal and interest together amounting to $4,584.73—which, she claimed, he had borrowed from her some thirty years ago, and had failed to repay. The defendant denied that he was the D. S. Reynolds involved in the borrowing, but did not succeed in convincing the jury to that effect.—*Medical Fortnightly.*

Phenduretin.—In the May number of the *Centralblatt für die gesammte Therapie* there is a summary, from the *Pharmaceutische Post*, of an article on this new phenol derivative that has been brought forward by a Csetnek apothecary named Orient. Mr. Orient describes phenduretin as forming fine, white, silky, acicular crystals that are tasteless, hardly soluble in cold water, and readily soluble in hot water. Its chemical constitution has not yet been determined with certainty. According to Mr. Orient's experiments on animals, it dissolves readily in the stomach and is absorbed into the blood within a short time. In large doses it appears to act upon the central nervous system and causes a profuse secretion of urine. A physician who has tried it in migraine is mentioned as having observed astonishingly good effects from it, coupled with its action as a powerful diuretic. The dose is from seven to fifteen grains, to be given twice a day.—*New York Medical Journal.*

Osteomalacia.—At the last meetings of various medical societies of Vienna different physicians gave their views respecting the frequency of the occurrence of osteomalacia. The chief symptoms of this disease in its latent stage, when it was liable to be mistaken for chronic myelitis, were stated to be pains in the limbs, over sensibility to pressure on the spinous processes of the vertebræ and on the iliac bones, and especially contracture of the abductors of the thighs. It was also stated that the disease was curable by the internal administration of phosphorus. One speaker said that he had observed recovery follow in one instance after a single administration of chloroform, while etherization was without effect.

The Paris Medical Faculty is sorely puzzled how to solve a problem that apparently is insoluble. While the number of medical students increases every year, the accommodation remains *in statu quo*, and the number of subjects for dissection decreases. Formerly the dead bodies of hospital patients, if not claimed by relations, were sent to the dissecting-room, but since the Municipal Council has accorded this right to friends of hospital patients there are much fewer subjects.

"**Pedology**" is a word of pleasant sound, and Dr. Emily V. Pardee evidently thinks it means the science of children's diseases. At least under this head she sings these stanzas, which have a Browning beginning and a medicinal finale:

"Do you hear the children crying, O my brothers,
Ere their sorrow comes with years?
They are leaning their young heads against their mothers,
And *that* cannot stop their tears.

"Do you question why they have such sad and sunken faces,
Why they weep so bitterly?
'Tis because the old-school doctor tends their cases
And they never tasted Homœopathy."

One of the Judges of this city is reported to have declared that he would not commit anyone to an insane asylum simply on the certificate of two physicians, and that hereafter he would have to see the patient.

Society Reports.

BRITISH MEDICAL ASSOCIATION.

Sixty-first Annual Meeting, held at Newcastle-on-Tyne, August 1, 2, 3, 4, and 5, 1893.

(Special Report to the MEDICAL RECORD.)

First Day, Tuesday, August 1st.

The proceedings commenced on Tuesday morning with a meeting of the Council, which was private. But at eleven o'clock the first general meeting was held, when the report of the Council and reports of several committees were submitted and adopted. These reports had already been printed, so that each could be digested by those specially interested in them. It must be acknowledged, however, that in the time at the disposal of members it is impossible to deal with the many important subjects comprised. Consequently, such discussion as time permits is desultory and often confined to side issues or minor points. It is regretted by many members that no adequate criticism can take place, and in its absence the reports can only command the respect due to the several committees, and ought not, although accepted at general meetings, to be put forth as the expressions of opinion of the Association. Some of them, there can be no doubt, would be found to excite considerable opposition. The report of the Council mentioned that several of its members intended visiting the Chicago Exhibition, and had been requested to represent the Association at the various congresses.

The Treasurer's Report stated that the revenue for the year was £34,143; expenditure, £29,122. The balance, of about £5,000, had been invested, raising the amount of investments to £37,000. The excess of assets over liabilities was stated as £50,735. Mr. Butlin was re-elected treasurer.

Address of Welcome. — The Mayor of Newcastle inaugurated the evening session by gracefully welcoming the members to Newcastle, stating some of its objects of medical interest, and testifying to the esteem in which the President, Professor Phillipson, was held by his fellow-citizens. Dr. Phillipson thanked the Mayor and Corporation in a few appropriate words, and afterward specially invited Professor Pozzi, as representing France, and Professor Giampietro, as representing Italy, to come to the platform. Representatives of colonial branches also received a cordial welcome, after which the

Presidential Address.—After some introductory observations on the growth of the Association and of the town since the first meeting in Newcastle twenty-three years ago, Dr. Phillipson followed the example of many predecessors in giving a sketch of the locality in which the meeting was held. The origin of Newcastle, he said, was due to the Romans. The municipal history of the town dates from Henry I., and the formal list of mayors begins in 1251. The College of Medicine and the College of Science were then referred to, both being colleges in the University of Durham, which was opened in 1833. The Literary and Philosophical Society, the Natural History Society, the Antiquarian, Geographical, Medical, and Clinical Societies were next mentioned, and then the Royal Infirmary and other hospitals and medical institutions.

Diseases of the Locality.—The speaker then took up the subject of the diseases specially prevalent in Newcastle. In the three northern counties he estimated the number of people employed by the coal mines at 120,000, and notwithstanding the character of the work he said there are but few diseases peculiar to miners.

Anthracosis is very rare, he said. Emphysema occasionally occurs. Pitman's asthma is well known, but less common than formerly. Miners are also very exempt from nephritis, due to the profuse perspiration when at work, and the ablution they practise on going home. Rheumatic affections are also rare, due to the same causes, although the work in heated atmosphere, in currents of air, often in damp and wet places, might be expected to produce them. The miners of the North of England enjoy an average of three years longer life than the aggregate of Englishmen, eight years longer than Cornish miners, nine longer than South Wales miners, and only one less than the healthiest districts of the kingdom. The frequent occurrence of diseases of the cardiac, vascular, and nervous systems was noted. Workers in iron suffered from diseases of the heart and aorta, owing to the strain on the blood-vessels. In the past five years fifteen per cent. of the medical cases in the Infirmary were diseases of the circulatory system, and of these 15.6 per cent. were of the great vessels. There are large lead-works on the Tyne, and the Infirmary is rarely without several cases of lead-poisoning in the wards. Women suffer more from this than men, as they are employed in handling and packing the carbonate. The Home Office has appointed a commission to inquire into the sacrifice of life in the manufacture of white and red lead, and the conditions under which the process might be safe. Cholera has been epidemic in Newcastle on three occasions, in 1831–2, 1848–9, and 1858. In September, 1892, one case was brought from Hamburg, but there was no spread of the infection. The mortality in 1871–80 was 25.8. In the next decade it was 23.6, a fall of 2.2. During the same periods there was a fall of 1.6 in the seven chief zymotic diseases. The President next spoke of the notification of diseases, of which he has long been an advocate, and he suggested that it should be everywhere compulsory, and that the county councils might utilize the information collected; but these bodies, he admitted, had hitherto been very apathetic, and only a few had appointed medical officers of health. Parliament has left county councils to define the duties of such officers, so that they may fulfil such duties as are now performed by the central staff in London. In this appears the true spirit of decentralization. Advice from a body directly connected with the community to which it is given, will be more readily acted upon than if it came from a central body or official.

Pollution of Rivers. —Dr. Phillipson then took up the subject of the "Pollution of Rivers," and said river inspection is an urgent necessity from a sanitary as well as an economical point of view. From the former, river waters have been rendered undrinkable by man and animals, a nuisance in some places, from manufactories, or from sewage and dangerous carriers of disease. From the economical aspect, pollution has destroyed the fish. The subject was dealt with by Parliament in 1388, and now, after the lapse of five centuries, again engrosses the attention of sanitary authorities and experts.

The recent lunacy legislation, he said, is of importance. The Acts embodied an attempt to combine protection to the public, the lunatic, and the liberty of the subject, with some protection to medical men whose duty it was to discharge various difficult duties toward the insane. The protection of medical men proves, however, so inadequate in practice that many are very averse to signing the certificates.

A Minister of Public Health.—Although sanitation is more advanced in this country than elsewhere, it must not be forgotten that much remains to be done. Legislation having aimed at throwing all the burden for providing for public health on local authorities, had not insisted that they shall respect and practise the regulations laid down for their guidance. It is true that the approach of cholera had led to a survey of the chief ports, but such work should not be confined to our first line of defence, but extend to the fifteen hundred areas into which our sanitary defence was split up, without in any way lessening the responsibilities of local authorities. This survey should be undertaken by the central government. The great need of our system was a closer touch between the local and central authorities, and for this a Minister of Public Health was urgently needed. Such a minister, selected for his transcendent professional abilities, and not for his political bias, would save an enormous amount of

delay, vacillation, and disagreement on sanitary subjects, and tend to raise the status of the profession. Very little could be expected from legislation, until the legislators were assisted and instructed by experts. Good laws could only be applied and their effects insured by well-qualified agents acting under one responsible head.

The address, which occupied about an hour, was listened to with attention by the crowded audience, and elicited much applause. A vote of thanks, proposed by Sir D. Duckworth and seconded by Dr. Ord, was carried with applause, and the President briefly returned thanks for the manner in which his address had been received.

The Reports of the Committees on Inebriates Legislation, Medical Charities, Railway Servants' Eyesight, Physical and Mental Condition of School Children, were severally proposed, seconded, and agreed to. A new by law was also enacted, providing that any member whose name had been removed from the Medical Register should thereby cease to be a member of the Association, but should be eligible for re-election in the event of his name being restored to the Medical Register.

SECOND DAY, WEDNESDAY, AUGUST 2D.

A general meeting was held in the afternoon, when the Ex-President, Mr. Joseph White, was elected a Vice-President for life: it was announced that the Council had chosen Dr. Ward Cousins as President of the Council for the next three years, and a vote of thanks was accorded to Dr. Withers Moore for his services in this capacity during the past three years.

Dr. Ward Cousins then announced that the Council had received a cordial invitation to hold next year's meeting at Bristol, and that they had agreed to accept this invitation, and nominated Dr. Long Fox as president-elect. This recommendation was unanimously confirmed. Dr Fox thanked the Association for the honor done him, said the whole profession at Bristol would welcome the Association, and prophesied that the intellectual portion of their meeting next year would be worthy of the metropolis of the Southwest.

Causal Relations in Disease.—The address in medicine was then delivered by DR. DAVID DRUMMOND, of Newcastle. After some introductory observations and references to the backwardness of pathology and the effects of terminology, Dr. Drummond took up the subject proper of his address, asking if it would not be an advantage to take a leaf from the chapter of experimental pathology and endeavor to show that disease may with more justice be referred to one cause than to several.

Illustrations of Unal Causation.—The speaker then proceeded to test the practical bearing of this theory by a brief examination of a few of the more prominent morbid conditions whose claim to belong to the category of diseases having a constant cause is pressing. In this class he included the relation between syphilis and locomotor ataxy. He regarded locomotor ataxy as invariably the result of antecedent syphilis, and held that (some statistics notwithstanding) where the former is found one may declare with a feeling of absolute certainty that there has been at a previous date the latter, to which this locomotor ataxy is in some manner due. Gowers says that syphilis is not the only cause of the disease, and that "in a few cases (less than ten per cent. of the whole) it can be excluded with confidence." The speaker ventured to question this opinion, and asked whether we ought to wait until in 100 per cent. of cases locomotor ataxy can be unerringly traced to this cause, before we believe in the inductive force of the ninety odd per cent. Such a course would be a virtual expulsion from medicine of the inductive method, which has hitherto been its best friend and its glory. This method does not profess to deal with every conceivable case, but only with such a number as may legitimately command assent and establish confidence, and is, with its results, valueless if we may not reason from such a large majority to the whole. It would be an interesting experiment to try to ascertain how much of the "less than ten per cent." would remain if the patient who gives evidence could be guaranteed a good memory, and indemnified against the penalty which a true record might entail.

Another disease which Dr. Drummond ascribed to the same specific factor is general paralysis of the insane. Here the burden of proof is attended with still greater difficulties to the statistician, who has in many instances to deal with patients whom Nature in robbing of past memories has deprived of the ability, if they possessed the will, to furnish a true record. And further, among general paralytics we find a larger proportion of women than among tabetic cases—a fact which lends an additional complication to the case. Notwithstanding these obstacles, we find that one of the most recent declarations (Jacobson, *Journal of Mental Science*, April, 1892), goes so far as to claim that at least sixty-five per cent. of the cases are specific, and we know that years ago Steenberg and others contended for the unal theory, namely, that there was "no general paralysis without syphilis." If further evidence were required in support of the theory of the constant connection between syphilis and general paralysis of the insane, over and above that furnished by statistics and interpreted in the light of the inductive method of reasoning, it is to be found in the fact that this disease is virtually the only progressive mental disease with which we are familiar, with a definite and recognizable anatomical lesion. And this fact alone justifies us in pronouncing in favor of a special causation, for it singles out the disease, and seems to warrant the conclusion that, as a definite pathological process has been at work, so has there also been a special etiological factor. He believed much might be done in those diseases by specific treatment, if instituted early enough, and indeed it is impossible to say how many cases of locomotor ataxy and general paralysis have been prevented by the timely use of antisyphilitic remedies, when at the outset a clew is forthcoming.

The Relation of Aneurism to Syphilis.—For many years the speaker had been deeply interested in the study of the connection between syphilis and aneurism, and in common with others has been struck with the frequency with which the former occupied a prominent place in the history of a sacculated aneurism. Since commencing the investigation no indisputable case has come under his notice in which specific disease was wanting, excepting two or three examples of acute softening of the arterial wall, with aneurismal bulging, in malignant endocarditis. Arterial strain through hard work is of course a factor in the production of aneurism, but it is one that in the vast majority of instances requires to be multiplied by specific arteritis in order that the product be aneurism, and then it is the lesser quantity of the two

The Relation of Empyema to Pneumonia.—The causal relation of pneumonia to empyema, one of the closest if not the most constant, the latest text-books notwithstanding, is another exemplification of the subject. True there are cases of pus in the pleural cavity that have not arisen out of an attack of pleuro-pneumonia, due possibly to an acute septic pleurisy, or to tuberculous pneumothorax, or as the result of a simple effusion becoming contaminated by septic matter, say by means of a trocar, but these are exceptions. Exclude them, and it may fairly be concluded that empyema, the common disease with which practitioners are so familiar, may be ascribed to an antecedent pneumonia.

The Relation of Chorea and Rheumatism.—Few subjects have excited more interest than the relation between rheumatism and chorea, and none has occasioned greater divergency of opinion. It may be said that the present state of our knowledge does not warrant a consensus of opinion. That may be true, but it is no reason why, out of our present knowledge, a theory should not be advanced in thorough harmony with well-ascertained facts, which may at any rate be a guide to fuller revelations, with increase of information. If it be admitted that a certain proportion of cases of chorea are associated

with rheumatism, the inquiry naturally divides itself into two parts, the nature and extent of the relationship. The speaker's own cases greatly favored the idea of a frequent and close connection between the two, so much so that he was inclined to the view that, in a certain proportion at least, chorea is simply one manifestation of the disturbance by the rheumatic poison of the function of somewhat unstable and growing cortical cells; and if this conception be tenable in a few instances, may it not, he said, be extended so as to include the whole of the familiar group of typical choreic cases so common among the children of nervous and rheumatic families, and prone to yield to large doses of arsenic?

The Causation of Cardiac Disease.—The study of cardiac lesions throws into relief the importance of tracing diseases to their true causes. They are all referable to primary conditions—rheumatism, gout, specific fevers, tuberculosis, sepsis, alcoholic excess, syphilis, etc., which are singularly fruitful in morbid products. These conditions constitute a formidable list, to which we are constantly adding, and each is responsible for heart affections having more or less characteristic clinical and pathological features. The immense importance of investigating cardiac diseases upon the basis of their antecedent and underlying morbid states cannot be over-estimated, for the treatment and prognosis depend largely upon the particular agent at work. It has been the habit of our schools to attach too much value to the diagnosis of the particular valve lesion, and too little to its cause. Thus, for example, we content ourselves with the shallow and often unimportant observation that this or that case is one of mitral regurgitation or double aortic disease, forgetful that what is of paramount importance is not only the primary reason for the existence of the lesion, but also the cause upon which the symptoms belonging to any subsequent attack of cardiac failure may depend. Thus the inquiry would necessarily embrace the questions in the case of toxæmic lesions—gouty, rheumatic, alcoholic, etc.—is the poison still circulating? and what is the prospect of its return? Difficult, and at present more or less problematical, are these questions, but to them we must direct our attention before we can hope to prognose and treat heart disease successfully.

Would a substantial reduction in the number of chronic heart cases, as the result of the recognition of the fact that many are due to curable and preventable causes which an early and successful treatment might reasonably be expected to subdue, be a dream too visionary for us to indulge in? Dr. Drummond thought not; but assuredly until we fully appreciate the causes a dream it will remain.

The Modifying Influence of one Disease upon Another.—The speaker then took up the question of the modifying or controlling influence exercised by one disease upon another, and even in this enlarged sphere of inquiry we walk by the light of this principle of causation.

Familiar clinical pictures of disease of an organ are often, he said, the product of the symptoms peculiar to it, and of others which are the expression of impaired function of another organ. In other words, the full symptom-complex of disease of one organ may be largely contributed to by disease of another, whether produced by the same or some other cause. He illustrated his meaning by an example. A patient addicted to alcoholic excess for a considerable number of years is known to be suffering from a group of dyspeptic symptoms, ascribed by the patient, friends, and doctor to this cause, but without a suspicion of gross organic mischief underlying them. This state of health interfered but slightly with the discharge of public and private duties, and indeed, beyond loss of flesh and some discomfort, there was a complete absence of signs of disease. An attack of pneumonia, which tried his powers of endurance considerably, and was followed by a slow convalescence, completely altered the character of the case. Within a fortnight or three weeks of the incidence of the pulmonary disorder, the abdomen swelled and its superficial veins enlarged, the lips became red and the tongue glazed and red, the face pinched, and the urine scanty and full of urates, the motions black, and in every way a most suggestive picture of cirrhosis of the liver was presented, a transformation that astonished the doctor and friends, and was not at first sight easily explained. The other reasonable assumption to account for the apparently rapid development of cirrhosis of the liver was, that the disease had existed for a considerable period in a latent form, and that the obstructed portal circulation was compensated for by the usual auxiliary relief, which served to reduce congestion, and thus keep in check the tendency to ascites, etc., until the attack of pneumonia, by producing cardiac insufficiency, upset the balance, and led to the appearance of the typical signs hitherto absent. Let us observe that, though the pathological changes characteristic of cirrhosis were present, the clinical aspect of the case was incomplete until a new and necessary factor, which had nothing to do with the original disorder, revealed the true nature of the illness. It seems a just inference that the cardiac affection made an important, if not essential, contribution to the completion of the symptom-picture.

But it is not enough to say that clinical pictures may be the joint products of symptomatic morbid relations, for they are often presented to us under the modifying influence of a tendency or bias, lent by a former or a concurrent disease; that is to say, it is quite common to meet with pronounced modifications in the clinical pictures of disease which can only be accounted for on the principle that one disease has a determining influence upon the aspect of another. For example: A man in the prime of life, who was much addicted to alcohol, came under observation for complete double drop-wrist, presenting every feature of a plumbic case. His history revealed the fact that twelve years previously he had suffered from lead palsy, with blue line, the result of drinking contaminated water, and as he was recovering he acquired intemperate habits, and developed into a chronic toper. The consequence was that the paralysis of the extensors became more pronounced, and remained permanent. There was absolutely no paralysis of the lower extremities, and the knee-jerk was normal.

The modifying influence of one lesion upon another may be decidedly beneficial. Thus, sarcoma and lupus may yield to the poison of erysipelas; of which fact, it is reasonable to suppose, more will be made in the immediate future. The controlling effect of disease on disease is also to be seen in the fact that it is quite rare for pulmonary tuberculosis to spring up in the course of a cardiac affection. And, again, it is not unusual when lardaceous disease develops in consequence of chronic phthisis, to observe a distinct tendency on the part of the tubercle to be arrested in its growth. And, further, in this connection the speaker said that he had been struck with the rareness with which a pneumonia complicated with jaundice proves fatal.

In concluding, Dr. Drummond said that the main aim of his address had been to arouse and quicken an interest in the study of morbid relations, wherein our success will much depend on our having a ruling principle for our guide, and a definite object and end in view. An inquiry into the symptoms, diagnosis, prognosis, and treatment of disease cannot fail to be greatly facilitated by keeping ever before us the particular cause or causes at work in producing an uncomplicated disease, or in furnishing the kaleidoscope aspects of many of our cases. In one way it seems a work of supererogation to inculcate the close observance of causes: for, as a rule, the practitioner gradually comes to perceive its importance, and automatically seeks for the cause, and is satisfied only when he has found it; and that he may register his observations he is driven to an accurate system of nomenclature, which shall possess for him both an etiological and a diagnostic value. Every advance in this direction is a positive gain to medicine: and whether we succeed in tracing a disease to its true origin, or attempt the more

arduous task of disentangling the morbid web with a view of assigning its due proportion of responsibility to each factor, and so of dealing with the whole, we are engaged in the employment of a method which, if developed, may make a revolution both in the name and treatment of diseases

On the motion of Dr. Ord, seconded by Dr. Byrom Bramwell, a cordial vote of thanks was accorded to Dr. Drummond for his admirable address.

The report of the Committee on Anæsthetics was adopted.

Admission of Women to the Association.—Dr. Galton then proposed an alteration in the By-laws which would remove all restrictions on the admission of qualified medical women as members of the Association. The resolution was seconded by Mrs. Garrett Anderson, M.D., and carried *nem. con.*, and not without applause.

The question of payment of travelling expenses to members of council, which has several times been before the Association, was then again brought forward. This question in various forms has been before the Association several times and threatens to be again and again. Certain members seems to find it interesting, but very few care about it. It was resolved to continue the present system by a show of hands of 17 against 6, the members having mostly rushed away at the conclusion of the address.

A large number went to a garden party given by the sheriff. The weather was bright, the music cheerful, the ground very pretty and the hospitality hearty.

Third Day, Thursday, August 3d.

The morning of this day was devoted to the Sectional proceedings. In the afternoon another general meeting was held.

The Evolution of Surgical Principles was the title of the address in surgery, delivered by Dr. G. H. Hume, of Newcastle-on-Tyne. The "principles of surgery" is one of those elastic phrases which carry to our minds a fairly exact meaning, but to which we find it hard to give a concise definition. We certainly do not use it as the equivalent of theory, but yet theories which become the motive or suggestion of surgical action are surgical principles, and these may be sound or unsound according to the character of the views upon which they are based. The mode of formation of surgical principles is a double one. They may arise like a superstructure upon a foundation of scientific knowledge, or they grow down out of experience to be themselves part of the foundation. They are the mainsprings of action; and so far from being alien to practical efficiency, they are at once its inspiration and guide.

The mode of growth of scientific principles can find no better illustration than in our modern doctrines of surgical repair. The beginnings of these doctrines may be traced far back in the history of surgery. But it was by Hunter's work that the real beginning was made. His statement that "primary healing takes place without inflammation" contains the germ of what we believe and act upon now. It did not, of course, go far enough. It defined the relationship between what was then, as it is now, ideal healing and inflammation, in the sense that no relationship can or does exist between them at all. But, notwithstanding this gleam of light the subject remained obscure, and down to a recent period the ideas of healing and the ideas of inflammation seemed in the very nature of things to be inseparably interwoven. It turns out that they were only needlessly entangled, and ideas which in the time of their confusion belonged mainly to the region of theory have since proved to be matters of the most eminent practical importance. The process of disentangling began in and proceeded with the elucidation of the true nature of inflammation and its consequent suppuration. There was a time when the four classical symptoms of pain, heat, redness, and swelling, summed up nearly all that was known of the process of inflammation. Then followed the anatomical era, in which attention was concentrated on the blood stasis, the changes in the tissues and in the vessel walls, and on the out wandering of the white corpuscles. An intermediate stage followed this, in which, clinically and experimentally, the suppurative processes were recognized to be infective in their nature. And this culminated in the period in which we now find ourselves, when the whole process is demonstrated to be due to the agency of micro-organisms.

We have now gone back to Hunter's dictum, only we have given it a more extended, or rather, an unrestricted, application. The surgeon's part, therefore, is now not to treat but to prevent inflammation and suppuration, and the practical side of the scientific evolution I have briefly sketched is the antiseptic system.

It has sometimes been made a reproach against the system of wound treatment by the introduction of which Lister created an epoch in surgery that its methods and details have undergone constant change. But through all the alterations of detail, there has been no deviation of principle. The dependence of suppuration and septic diseases upon organisms, and the prevention of these diseases by destroying or getting rid of the cause, is the principle on which the treatment rests, and it is one which admits of some latitude in its application. The aim can be achieved in two ways. Either reliance is placed mainly on the germicidal powers of chemical agents, or the surgeon prefers to trust rather to the removal of the minute organisms along with the soil in which they flourish. The two roads to the same end we know under the names antiseptic and aseptic; and fortunately we are able in this case to travel on both at the same time. So far as our work is concerned, we have thoroughly learned the lesson that cleanliness takes no second place, that it is the highest virtue in surgery.

Those of us who have worked through the whole of the antiseptic period can in looking back trace with some interest the different phases through which the method has passed. The main changes in the *technique* of the treatment have owed their origin to changing views as to the sources whence danger of infection might be expected to arise. The aim was at first to avoid atmospheric contamination; hence we had sealed wounds, and later the spray. Gradually the belief strengthened that our own hands and the skin of the patient, besides the instruments and sponges, which had always been cared for, were most often at fault; and as a result even the most orthodox believers in the potency of carbolic acid or corrosive sublimate became scrupulous cleansers.

No one now is ever heard to speak of laudable pus; no pus is considered praiseworthy; but, on the contrary, if it appear in a wound for which the surgeon is responsible, and in making which he had the control of all the conditions, it is always a thing to be ashamed of. Healing without suppuration, therefore, is the end aimed at in all operation wounds, and in a sense it is an extended description of union by first intention. It applies to wounds healing by granulation, or by the organization of a blood clot, as well as to those uniting by primary adhesion.

From trusting more, because knowing better, Nature's powers of repair, it has followed that the range of reparative surgery has been greatly widened. It is not now thought sufficient in bringing wounds together to pass our sutures through all the tissues at once, but each layer is separately stitched—muscle to muscle, fascia to fascia, skin to skin This is one of the lessons which, if it did not at first teach us, abdominal surgery has been forward to utilize. The gain in abdominal operations is in a greatly strengthened cicatrix and the avoidance of ventral hernia. In general surgery the gain is in promoting healing by the obliteration of "dead spaces," and the consequent less frequent need of drainage.

Skin grafting, according to the method of M. Reverdin, has long been a valued resource in hastening the cicatrization of granulating surfaces. But the method

known by the name of Thiersch makes larger demands on tissue vitality, and is of wider usefulness. When a portion of the skin—it may be as large as an inch square—is detached and transferred to a recent and aseptic wound, it retains its inherent vitality until it becomes penetrated by blood-vessels advancing into it from its new bed. It is thus fully adopted and incorporated in its new position. As if to explain the eager readiness with which the vessels and proliferating cells of the wound surface enter into and constitute an organic union with the new part, Thiersch has advanced one of those theories which, whether they prove in the long run to be well or ill founded, give by their aptness a special kind of mental satisfaction. By a legitimate scientific use of the imagination he supposes that a store of proliferating energy exists in the tissues which, in their intact condition, is kept in check by the mutual pressure of their elements. The constituents of the tissues, in other words, do not grow beyond a certain point for want of elbow room; but when this mutually restraining pressure is removed by a breach of surface their proliferating energy is set free, and by their liberated activity they become competent to carry out the work of repair. It is not necessary in removing the graft to take the whole thickness of the true skin. A portion of the corium left behind will, by obviating cicatrical contraction, lessen the sacrifice for that surface which is the donor, without diminishing the value of the gift to the recipient. In plastic operations on the face, and in operations for malignant disease which have involved free removal of skin, the method has found useful application.

One of the most useful applications of skin-grafting is in the treatment of ulcers of the leg. Bearing in mind the necessity of an aseptic condition of the bed upon which the grafts are to be placed, it is requisite, by paring the edges, and by thorough scraping of the surface with the sharp spoon, as well as by the use of antiseptic solutions, to surgically cleanse the ulcer. To get rid of the irritating effects of the antiseptics, they should be washed away by sterilized water before the application of the grafts. So treated, an ulcer is brought into the condition of a recently made wound, and success entirely depends on the thoroughness with which this transformation can be effected.

In the grafting and reimplanting of bone the incorporation takes place, no doubt, in the same manner as in the skin. We have learned, also, that the breaking up of the bone into small chips is not always necessary; at least that it is not necessary in the case of the disks removed in trephining the skull. Provided these be of moderate size, they can be replaced whole.

In the direct suturing of the divided ends of nerves it may be supposed that immediate reunion of axis cylinders with restoration of function may take place. But when a graft several inches in length is interposed between the widely separated nerve ends, and sensation returns in thirty-six hours, what is the anatomical and physiological condition of the graft? Can it have become so vascularized, and have its axis cylinders acquired such intimate union with those of the nerve ends as to make it in so short a time capable of conducting impressions? The subject appears to call for further investigation.

Tuberculosis.—Before the microbic origin of tubercle was known surgery was becoming more aggressive in the treatment of so-called scrofulous disease. But from the new light the surgery of tubercle has gained immense encouragement. The theory of a constitutional origin has been changed into the belief in a constitutional vulnerability; and, now the surgeon undertakes the treatment of local manifestations of tubercle by local measures. In consequence the surgery of tubercle has undergone great extension. Affections of the skin, of the glands, of the bones and joints, of the urinary organs, of the peritoneum, are submitted to local treatment. And the extension has been in the direction not only of new applications, but of greater thoroughness. The knowledge of the infective character of the disease, and of the liability to local relapses, or even general infection as a consequence of incomplete removal, has led, for example, to the excision of every affected gland or of every diseased focus in a joint. And the guidance afforded by pathological knowledge is even more explicit with regard to other points of treatment. The important question of general infection has light thrown upon it by what we know of Nature's endeavors to imprison by a wall of granulation tissue a tuberculous focus. When by an incomplete operation we break down this wall or cause it to crumble by infecting it with pus microbes, without entirely removing the tuberculous disease, we open the way for the passage of the tubercle bacilli into the system. Hence the extreme necessity of keeping our operations free from sepsis, as well as of making them thorough.

Cancer.—The whole disease picture presented by cancer offers so many points of resemblance to that of tubercle, that the probability of a parasitic origin of it also has at present taken strong possession of the minds of pathologists. The occurrence of minute organisms of the class of sporozoaria in connection with cancer has, the speaker held, been demonstrated; but any causal relationship between them and the disease has not been proved. We have as yet nothing beyond the nature of conjecture as to the essential cause of cancer; and as to many facts of secondary, but still great, importance in the natural history of the disease, we have to own that our knowledge is so vague as to be little better than ignorance. On one point of importance there is agreement and a growing readiness to act upon it. Due largely to the influence of Mr. Jonathan Hutchinson, a precancerous stage of cancer is recognized; and it follows from the recognition that surgery ought to interfere during this period of suspicion. Another point of practical moment is brought out by the observations of Dr. Sims Woodhead and Mr. Harold Stiles on the channels of lymphatic infection, in which it has been shown that whenever irritative or effete material has to be dealt with in large amount a special filtering tissue is developed. This, which consists of a growth of adenoid material, is formed in the connective tissue along the lymph channels, and is produced still more strikingly by the transformation of the small lobules of fat in the axilla. One of the great difficulties of dealing with cancerous disease is that we have no means of knowing when lymphatic infection first takes place. As the lymph circulation is always going on there is no reason why infection may not occur in the very earliest stage of the primary growth. In dealing with cancer, therefore, we are meeting an enemy whose first invasion is invisible, and whose strength at any time we cannot even guess at; but all we know of its nature only points to the necessity of free removal. Dr. Hume said that his own experience was strongly in favor of the removal of the next group of glands along with the primary cancer, whether they show gross enlargement or not. To no subject in the whole range of medicine has there been devoted a greater patience in observation, a more continuous labor in inquiry than to the subject of cancer. The hope of now solving the problem by demonstrating its parasitic origin has enlisted a fresh band of workers whose skill and tenacity in their investigations will surely lead to some definite result.

The speaker then referred to advances in surgery which had come from a revised reading of certain facts in topographical anatomy. In illustration of these he spoke of the rapid creation of the surgery of the cæcum and appendix, and the revival for the high operation for stone.

Canons in Surgery.—There is a large body of surgical principles which spring almost purely from observation and experience. In this sense of principles derived from experience Dr. Hume used the word as implying not a fundamental fact in science on which action is based, but a rule of action adopted because it has been found, or thought to be, the best, and stamped with the authority of general acceptance. The phrase "canons in surgery," used long ago by John Bell, and revived a few years ago by Mr. Hutchinson, very aptly covers these rules of experience. Their character and mode of formation will be best

shown by an example. The question of amputation in senile and diabetic gangrene of the foot seems to be in course of settlement, in favor of operation. The condition is almost certainly fatal, and is fatal often after a period of lingering and intense suffering. As a measure for its relief or for the saving of life, amputation has almost uniformly failed when it has been done in the lower part of the leg. The gangrene seizes upon the flaps, and if the limb be reamputated higher up the stump is again attacked. But it has been found that if the leg be taken off in the first instance above the knee a fair proportion of cases recover. About one-half, according to the most recently collected figures, have been successful, and in a condition so hopeless and usually so painful, such a result is better than the certain issue of non interference.

An old and familiar surgical canon, formulated by our predecessors as a result of experience, enjoined on the surgeon the duty of operating, "when in doubt," in all cases of hernia. We greatly need the guidance of some equally definite rule in cases of internal obstruction. Upon the question of operation surgeons are, if not divided into two parties, at least biassed in contrary directions. Some would operate in all cases of complete obstruction so soon as they have the opportunity; others would try other measures, see what Nature will do, and operate as a last resource. And strong arguments are to be found on either side. Where are we to look for guidance? Mainly, the question must be settled by experience; it is a case to which the maxim "Solvitur ambulando" applies; and experience will aid by bringing to us the ability better to discriminate between the different causes producing obstruction, and to appreciate the prognosis to be attached to each.

Shock.—In concluding, the speaker dwelt upon the duty of the surgeon to avoid, or as far as possible to minimize, shock. We do not know the exact pathology of the condition; probably several different conditions are included under the name. But we are very familiar with its symptoms. We know that the patient becomes cold, that the heart's action is depressed, and that all the nervous functions are lowered. We know also that it is induced or aggravated by prolonged operation, by chilling of the surface, by hemorrhage, whether this take place rapidly or by continuous oozing in small quantity for a long time. The giving of chloroform on successive days lowers the patient's resisting power. All this supplies hints enough for its prevention and treatment. Something can be done in anticipation of the operation in the way of propping both the physical and moral courage of the patient. Much can be done after the operation in rallying from the condition: and Dr. Hume believed that a very small, stimulating, hypodermic dose of morphine has proved then of greater use than the same measure employed as a prophylactic. Transfusion with normal saline solution has a wonderful power of rallying from shock, but in the speaker's experience its good effect is disappointingly transitory. But most is in our power in the way of prevention by guarding our patients against all those causes which produce shock or aggravate it.

A cordial vote of thanks was given to Dr. Hume for his address.

Dr. Armstrong, the medical officer of health, conducted a number of the members over the temporary cholera hospital.

Opening of the New Home for Incurables.—The ceremonies of the opening of this home, which has just been completed by the Corporation, then took place. It was delightfully fine weather, and upon the lawn in front of the new building a dais had been erected, in front of which seats were placed for visitors. The lawn is bordered by flower-beds and groups of trees, and the grounds are beautifully laid out. The Chairman of the Charities Committee of the Corporation presented a golden key to the Mayoress, and also a silver lamp as a memento. The lady made a pretty speech in reply and duly applied the key to open the building, which provides accommotion for forty-eight cases besides twenty of a cancerous nature.

Dr. Phillipson, as President, expressed his thanks for the invitation to the British Medical Association to be present, and said no gathering could have been more appropriate. Many of the visitors then inspected the wards, where a sale of work was held, which was freely patronized. It was said that many of the articles were made by the inmates.

The Public Dinner of the Association—always a great function with many—was held in the evening. The President occupied the chair and was supported by the Mayor, the Recorder, and other prominent citizens of Newcastle. Lord Armstrong, in responding to the House of Lords, made a pleasant little speech, and the Recorder, Sir Digby Seymour, Q. C., was intrusted with the toast of the evening, to which he did full justice. The speeches of the officials of the Association were as enthusiastic as usual, but rather wearisome to habitués of these meetings. as one seems to have heard them so often before.

The first of the excursions also took place on this day. This was to Tynemouth, where the Mayor and Corporation entertained a party of some five hundred ladies and gentlemen to luncheon. Tynemouth has been called the Brighton of the North, and is a very pleasant and healthful resort, with beautiful sea and land views, an interesting history, and ancient relics.

Fourth Day, Friday, August 4th.

The sections again devoted two hours to their work, after which followed the concluding general meeting, at which Dr. C. J. Cullingworth delivered his address on "Obstetrics and Gynecology," of which the following is a brief abstract.

Pelvic Peritonitis and the Pathological Importance of the Fallopian Tubes in Connection Therewith.—Dr. Cullingworth reviewed at some length the history of pelvic inflammation, dwelling especially upon the work of Bernutz in this line, and then discussed the subject as it is understood to-day.

Pelvic Cellulitis Commonly a Secondary Disorder.—During the past five or six years the speaker said he had performed abdominal section in nearly one hundred cases that in the earlier part of his professional career he would have regarded as well-marked examples of pelvic cellulitis, namely, cases in which the mobility of the uterus was more or less impaired, and in which hard, irregular, fixed swellings could be felt above one or both lateral fornices of the vagina, and often extending into Douglas's pouch. In the vast majority of those cases he found no evidence of cellulitis at all, and, where it did exist, it was clearly secondary to the salpingitis and peritonitis which constituted the principal lesions present. In no case was there any inflammatory exudation in the cellular tissue of the broad ligament or elsewhere sufficient to form a distinct tumor recognizable as such on bimanual examination. In some cases of chronic suppurative inflammation of the uterine appendages, the broad ligaments were the seat of a certain amount of thickening from inflammatory exudation, but this obtained only in the neighborhood of the suppurative disease, and the thickening seldom exceeded one-eighth of an inch, and even in extreme cases never exceeded half an inch.

Pelvic Inflammation Usually a Peritonitis Originating in Salpingitis.—The usual state of things disclosed on opening the abdomen in these cases is as follows: The contents of the pelvis are generally concealed from view by the great omentum, which has been drawn down so as to cover them in anteriorly, and has contracted adhesions to the peritoneum as it becomes reflected on to the anterior abdominal wall, as well as to the uterus and other pelvic viscera. Along with this screen, as it were, of omentum it is not unusual to find coils of adherent small intestine. On separating and drawing aside this screen, one side, or it may be the whole, of the posterior part of

the true pelvis is seen to be occupied by what appears to be an indistinguishable mass of matted viscera. The uterus itself is sometimes implicated in the mass, but in other cases its upper part at least is free. Tracing the Fallopian tube outward from the uterine cornu on the side of the disease, it is often found to be normal in size for the first half-inch or so, and then to become involved in the adherent mass. This mass, on being separated and brought into view, is invariably found to consist of the uterine appendages more or less altered by inflammation. There is always salpingitis, and the inflamed and thickened tube usually enfolds the ovary. In a large number of cases the ovary itself is normal, except that it is universally adherent. In other cases it is in a condition of incipient cystic degeneration. In many cases the cysts in the ovary are found to be in a state of suppuration, their contents having presumably become infected from the inflamed and suppurating Fallopian tubes. Primary ovaritis, either acute or chronic (apart from tuberculous disease), is a very rare condition.

The evidences of peritoneal inflammation are always most marked in the neighborhood of the fimbriated end of the tube, showing clearly that the pelvic peritonitis has originated by direct extension from the mouth of the inflamed tube or by the escape of morbid secretions therefrom.

The changes in the walls of the tube are as follows: in acute cases the mucous membrane is highly congested and swollen and covered with purulent or muco-purulent secretion; in chronic cases the condition varies according to whether the inflammatory secretions are pent up within the tube or have made their escape from the open fimbriated end. In the former case the mucous membrane is either distinctly ulcerated or covered with granulation tissue; in the latter, having got rid of its secretions, it is often found to have resumed more or less completely its normal appearance, except in the neighborhood of the adherent abdominal ostium, where it is frequently intensely congested and œdematous. The middle or muscular coat is greatly thickened and indurated from inflammatory exudation among the connective-tissue elements of the muscular layer.

In advanced cases the pus-containing tube becoming adherent to a cystic ovary, its wall may ulcerate and perforation occur, permitting the escape of the purulent contents of the tube into the interior of the cyst and the forming of tubo ovarian abscess. The result of such an accident is a sudden and most violent attack of pelvic peritonitis, placing the life of the patient in imminent peril. It must not, however, be supposed, whenever an inflamed and purulent tube is found suddenly to lead into a large abscess cavity, that the condition is necessarily one of tubo ovarian abscess. A tubo-ovarian abscess may be simulated by a sudden expansion of the tube itself, forming a curious and interesting variety of pyosalpinx.

Complications of Salpingitis.—When the salpingitis is unilateral, it is not at all unusual to find that the peritonitis spreading from the fimbriated end of the inflamed tube has passed over to the other side of the pelvis, involving the healthy uterine appendages of that side in a mass of adhesions. Under such circumstances closure of the abdominal ostium of the healthy tube is apt to occur, and to be followed by the development of a hydrosalpinx, which may, in its turn, itself become a source of suffering and ill health. Hæmatosalpinx, as a complication of salpingitis, is much more rare. In the great majority of cases hemorrhages within the tube and hæmatoceles of tubal origin are the consequence of tubal gestation, but now and then they occur as incidents in the course of the inflammatory processes just described. The pathological importance of the Fallopian tube is due to its peculiar anatomical position in the human subject. It is exposed to constant risk of infection, owing to the direct continuity of its lining membrane with that of the uterus and vagina, so that it is almost by a miracle if it escapes in any case of acute infective endometritis, whether septic or gonorrhœal. The uterine end of the Fallopian tube has a lumen only just large enough to admit a fine bristle. It will, therefore, be readily understood that it only requires a very slight amount of swelling of the mucous membrane, such as is probably inseparable from the mildest inflammatory attack, to block up that end completely. The position of matters, therefore, is that either there is no outlet at all for the morbid secretions, owing to the closure of one orifice by the swollen mucous membrane and the closure of the other by adhesions, or the only outlet is through the abdominal ostium into the peritoneal cavity. It is this fact of the absence of a safe outlet for inflammatory products that makes an attack of suppurative salpingitis so much more serious a matter than an equally severe attack of suppurative endometritis, and that invests the inflammatory affections of the Fallopian tube generally with such an exceptional and grave importance.

Referring to the advances that have been made in diagnosis, Dr. Cullingworth said that a little time ago the idea of being able to map out and examine the uterine appendages in the living subject would have been scouted with derision, but to-day he would be ashamed for any of his clinical clerks to be found, at the close of their three months' tenure of office, unable to diagnose, under reasonably favorable circumstances the size, position, consistence, and mobility of the Fallopian tubes, even if not of the ovaries as well, with a fair amount of accuracy.

The speaker then dwelt upon the improvement in treatment which had been made in recent times, and contrasted the operative and non-operative methods.

He gave the histories of three cases of purulent salpingitis that proved fatal owing to escape of the contents of the tube into the peritoneal cavity; in two instances through a rupture of the tube wall, and in the third through the still unclosed fimbriated extremity of the tube.

He then, by way of contrast, related three cases of very similar character to the foregoing, in which the diseased tubes were removed by operation. These cases terminated in perfect recovery. He believed that there could be no reasonable doubt that the lives of the first three of these six patients might have been saved by timely operation, or that the lives of the last three were so saved. But he did not wish to be misunderstood. He did not for a moment suggest that every case of inflamed Fallopian tubes should be operated upon. On the contrary, he believed that most of them recover without. But there is a large residuum of cases, most of them chronic, some few acute, in which nothing but an operation can save life. And there is a still larger number of cases where a timely operation rescues the patient from years of misery, incapacity, and chronic invalidism. The operation is, in short, not the one Heaven-sent remedy superseding all others, but an invaluable addition to our resources, which, when it is adopted in suitable cases, under a due sense of responsibility, and after full explanation to the patient and her friends both of the immediate risk and the ultimate physiological results, is capable of achieving triumphs as remarkable as any operation in surgery.

In the afternoon there was an excursion to Durham, and the University signalized the occasion by conferring the honorary degree of D.C.L. on Mr. Joseph White (ex-president), Dr. Withers Moore (a former president), Mr. Butlin (treasurer), Dr. Drummond, Dr. Cullingworth, Sir W. Foster, and the editor of the *Journal* (Mr. Ernest Hart).

In the evening there was a *conversazione* at the Newcastle Art Gallery, where a large number assembled.

Fifth Day, Saturday, August 5th.

This day was entirely devoted to excursions, and an ambulance review in the Park, but a large number of members had left and others were leaving. The exodus, in fact, began on Friday, but a sufficient number remained to carry out the programme of these lighter labors.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

BRITISH MEDICAL ASSOCIATION—TYPHOID AT A HEALTH RESORT—CONTAMINATED WATER—SURGERY OF THE AIR PASSAGES—MR. PITT'S LECTURES AT THE COLLEGE OF SURGEONS—TRACHEOTOMY AND INTUBATION—SCALDS OF THROAT—CONGENITAL DEFECTS OF LARYNX—DIPHTHERIA—A NEW METHOD OF REMOVING THE UTERUS.

LONDON, July 29, 1893.

NEXT week will be occupied with the annual meeting of the British Medical Association. This year we meet at Newcastle, and I shall forward you a full account of the proceedings. A number of reports have already been issued. This is a good plan, for it gives a day or two to digest them; but even so, there is usually no time for discussion, and the several reports are usually "rushed" through the general meetings, only a few determined spirits caring to give utterance to their discontent. The council thus manages to suppress criticism, and these reports go forth as expressing the views of the association, although everyone present is well aware that they are the uncriticized effusions of the officials. Of course, in the case of non-contentious subjects, this is of no great consequence; but in some of those instances where the managers are not representative of the members, the reports become *vox et prœteria nihil*.

A terrible epidemic of typhoid has occurred at Worthing, a pleasant seaside resort of some seventeen thousand inhabitants, situated on the south coast, a short trip from Brighton. In May and June there were three hundred and three cases notified, and it was hoped that the worst was over, but very soon a recrudescence occurred. There have been ninety-three deaths up to this date registered, and about one thousand attacks have been reported. It was thought at first that the outbreak was caused by the fouling of a new adit by the workmen employed, but it seems that while this actually occurred and perhaps commenced the epidemic, other contamination of the waterworks also took place either from a drain or from the admission of surface water. It is thought that the fall in the number of cases was probably due to the general boiling of the water by the terrified inhabitants, and that this precaution was neglected on the water being pronounced pure, and so the second outbreak was produced. It seems clear that the infection has remained an unusual length of time in the water-works or else has been renewed. It is, therefore, satisfactory to learn that the authorities have determined to obtain an entirely new supply, and in the meantime have arranged to use the water of West Worthing, where there has been no invasion.

Mr. Bernard Pitts took the surgery of the air passages and thorax in children for the subject of his lectures at the Royal College of Surgeons, confining himself almost entirely to conditions that had come under his notice at St. Thomas's Hospital and the Children's Hospital. Naturally tracheotomy and intubation loomed largely in this connection, as injuries and diseases of the larynx occupy so important a position among children. Scalds of the throat, *e.g.*, are still too common among children of the poorer classes. Of seventy-eight such cases admitted to St. Thomas's, sixty-seven were caused by the attempt to drink from the spout of a boiling kettle, the average age of the sufferers being a little over three. Mr. Pitts thinks intubation will take the place of tracheotomy in œdema from scalds when the injury is chiefly confined to the glottis and the surgeon is skilful in the use of the tubes. Congenital defects of the larynx and webs need not be interfered with unless there is difficulty of breathing. For papillomata, intubation was discountenanced and tracheotomy advised, followed in some cases by thyrotomy.

There is no doubt that tracheotomy has been more successful of late years than formerly. This is due to earlier operation and great attention to detail: delaying interference until the last moment, as formerly too often done, adds greatly to the risks. The high operation is almost always preferred in England for œdema, papillomata, foreign bodies impacted in the larynx, or inflammation of that organ; the low operation being employed when a foreign body has entered the trachea or a bronchus, as well as for syphilitic and, perhaps, tuberculous disease of the larynx. Some useful hints were given by the lecturer as to the operation itself, and, having watched many house surgeons in their earlier operations, he considered the chief dangers to be, too small an opening into the trachea and too great hurry to introduce the tube. After the trachea is opened, if dilating forceps or retractors are used, blood may be allowed to escape by coughing, or other contents can be removed and the tube introduced with as much deliberation as gentleness. Durham's tube is used at St. Thomas's, and ulceration, formerly so common, has rarely occurred since its adoption. Parker's tube is less expensive, simpler, and in use at the Children's Hospital. Rubber tubes are substituted a few days afterward if the secretions are normal, and in diphtheria when membrane ceases to form. Statistics of results in diphtheria are apt to be misleading, as epidemics differ so much in severity; it is most important to support the patient, and nasal feeding is better than nutrient enemata. The steam treatment is often overdone; the bed should not be near the fire with steam from the kettle playing over the face and body. A warm moist sponge should be kept over the tube, and the inner tube changed every hour or oftener while the discharges are thick. A zealous nurse may do harm by the frequent use of the feather. If obstruction occur, the surgeon should change the tube. A hand-spray of mercury perchloride, 1 in 1,000, was recommended for fauces, nasal passages, and the wound; but care must be exercised, and the spray must not enter the tube.

With regard to intubation, the lack of confidence still entertained in England was reflected by Mr. Pitts, who acknowledged that his own feelings were in favor of tracheotomy as a routine operation, though he admitted equally good results may be obtained from intubation; the chief factors in determining the choice being the nature of the case, the age of the patient, the experience of the operators, and the consent of friends. The lecturer gave the statistics of the two hospitals with which he is connected, and referred to recent results and opinions of both American and Continental surgeons. Moreover, he put in a statement by Dr. Collier, who has had charge of most of the cases at the Children's Hospital. Dr. Collier prefers intubation in all cases of laryngeal diphtheria when there is no supra-laryngeal obstruction and no evidence of membrane in the trachea. In this last event easy inspiration may result for a time, but the membrane acts as a valve to obstruct expiration, and insufflation of the lung will occur with great rapidity. When the diphtheria is also supra-laryngeal, the air passing over the membrane may set up bronchitis or produce broncho-pneumonia of the type of "cut-throat lung." In such cases, too, the local treatment of the nose and pharynx gives rise to choking, and the feeding of such cases is attended with the greatest difficulty.

A new method of removing the uterus has been brought before the Gynæcological Society by the president, Mr. Bowreman Jessett. He recently had the opportunity of performing his operation. He made peritoneal flaps, fore and aft, after securing the vessels and freeing the cervix with the scissors, in the same way as for a supra-vaginal amputation of the cervix, while an assistant pushed up the uterus, first with a speculum and then with a finger in the vagina. Instead of suturing the peritoneum, six ligatures were placed as follows: From the vaginal to the serous surface of the anterior flap; over the edges of both flaps; from the serous to the vaginal surface of the posterior flap. The ligatures were not tied, but simply drawn down into the vagina and pulled tight so as to close the peritoneal floor. The vagina was packed with iodoform gauze through the speculum. In reply to questions, Mr. Jessett said enucleation could not have been done in the case, the tumor being intra-mural; there was no difficulty in secur-

ing the uterine arteries, which could be felt in the flaps; it was not necessary to work deep down in the pelvis, as the parts could be brought up with a hook and the whole field of operation was well in view. By this method if any hemorrhage occurred it would be into the vagina, and so easily dealt with.

DRAFT OF A PROPOSED BILL TO ESTABLISH A BUREAU OF PUBLIC HEALTH.

The New York Academy of Medicine,
No. 19 West Forty-third Street, August 14, 1893.

In a previous paper the undersigned, a sub-committee of the National Quarantine Committee of the New York Academy of Medicine, submitted the first sections of a bill creating a Public Health organization in the General Government. Our purpose was to harmonize conflicting views on the plan of organization, about which there is a diversity of opinions, in order to concentrate upon a single measure the efforts of all who are interested in securing the necessary legislation. We herewith tentatively submit the complete bill organizing a Bureau of Public Health, for the purpose of eliciting a full and free discussion of the subject before finally determining the precise form which the committee will adopt. While the committee believe that the plan submitted is more nearly in accordance with the opinions of those whose judgment and experience are most valuable, it is prepared to give due consideration to any modifications which may be proposed. In preparing the details of the Bill the committee has reviewed all of the bills which have been before Congress during the past years, and have incorporated those provisions which seemed most important, the law of last year being most freely drawn upon.

All communications addressed to the Secretary of the Committee, Dr. J. H. Girdner, 31 West Thirty-eighth Street, will be duly considered.

Joseph D. Bryant, *Chairman.*
Richard H. Derby.
Edward G. Janeway.
T. Gaillard Thomas.
David Webster.
Stephen Smith.
J. H. Girdner, *Secretary.*

A Bill to establish within the Treasury Department a Bureau of Public Health.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

Creating Sanitary Districts.

Section 1. That for the purposes of this Act the States and Territories of the United States be, and are hereby, grouped into districts, to be known as "The Sanitary Districts of the United States," as follows:

The Northern Sanitary District shall include the States of Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, Wisconsin.

The Northeastern Sanitary District shall include the States of Connecticut, Massachusetts, Maine, New Hampshire, New York, Rhode Island, Vermont.

The Northwestern Sanitary District shall include the States of Idaho, Montana, North Dakota, Oregon, Washington, and the Territory of Alaska.

The Eastern Sanitary District shall include the States of Delaware, Maryland, New Jersey, Pennsylvania, Virginia, West Virginia, and the District of Columbia.

The Western Sanitary District shall include the States of California, Nevada, Utah, and the Territory of Arizona.

The Southern Sanitary District shall include the States of Arkansas, Alabama, Kentucky, Louisiana, Missouri, Mississippi, Tennessee.

The Southeastern Sanitary District shall include the States of Florida, Georgia, North Carolina, South Carolina.

The Southwestern Sanitary District shall include the State of Texas and the Territories of Indian Territory, New Mexico, Oklahoma.

The Central Sanitary District shall include the States of Colorado, Kansas, Nebraska, South Dakota, Wyoming. [*Original.*]

Organization of a Bureau of Public Health.

Sec. 2. That there shall be established in the Treasury Department, under the direction and supervision of the Secretary thereof, a Bureau of Public Health, to consist of a Commission of fifteen, of whom eleven shall be appointed by the President, by and with the advice and consent of the Senate, as follows, viz.: One Medical Commissioner from each of the "Sanitary Districts of the United States," provided in section one of this Act, and two commissioners at large; the compensation of the appointed commissioners, when actually engaged in the performance of their duties under this Act, shall be ten dollars per diem and reasonable expenses. The other four members of the Commission shall be the Surgeon-General of the Army, the Surgeon-General of the Navy, the Supervising Surgeon-General of the Marine Hospital Service, and an officer, learned in the law, detailed by the Attorney-General from the Department of Justice; these four members shall receive no compensation. [*Original.*]

Officers of the Commission.

Sec. 3. That the members of the Commission shall meet at such time and place as may be designated by the Secretary of the Treasury, and organize by the election, from their own number, of a President who shall be one of the members at large, and who shall receive five dollars per diem, in addition to the ten dollars per diem provided in the last section, when actually engaged in the performance of his duties under this Act. The Commission may appoint a Secretary not one of its number, and fix his salary at a sum not exceeding three thousand dollars annually. The Commission shall thereafter meet annually, at Washington, on the first Tuesday of October, and at such other times and places as the President of the Commission, with the approval of the Secretary of the Treasury, may designate. [*Original.*]

Sec. 4. That there shall be an Executive Committee of the Commission, consisting of its President, the Surgeon-General of the Army, the Surgeon-General of the Navy, and the Supervising Surgeon-General of the Marine Hospital Service, and the officer detailed by the Attorney-General. The Commission shall from time to time prescribe the duties of the Executive Committee, and may make all needful rules and regulations for its own control and for the guidance and discipline of all its officers and employees, and shall establish all rules and regulations for the government of national sanitation in all of its foreign and interstate relations, and special departments in the enforcement of the provisions of this Act. [*Original.*]

Conference with the State Board of Health.

Sec. 5. That when, in the opinion of the President of the Commission, the interest of the public health would be promoted by a conference of the Commission with the State Boards of Health of the several States, or of any sanitary district or districts, he is hereby authorized to invite, with the approval of the Secretary of the Treasury, said State Boards of Health, or such number thereof as he may designate, each to delegate one of its members to meet the Commission in conference at such time and place as he may appoint; the President of the Commission shall be the President, and the Secretary of the Commission shall be the Secretary of any such conference; the delegate in attendance upon the conference from each State Board of Health shall be entitled to receive reasonable compensation for expenses for a session not exceeding three days, to be paid on vouchers provided by the Secretary of the Treasury. [*Original.*]

Sec. 6. That the duties of the Bureau of Public Health shall be to collect and diffuse information upon all matters

affecting the public health; to advise the several departments of the Government, the Executives of the several States, and all Health authorities on all questions submitted to it, or whenever in the opinion of the Bureau such advice may tend to the preservation and improvement of the public health; to secure the best sanitary condition of vessels from foreign ports; to prevent the introduction of contagious and infectious diseases into the United States, and their spread from one State into another; to co-operate with and aid State and municipal health authorities in the execution and enforcement of rules and regulations to suppress contagious and infectious diseases; and, in general, to be the medium through which the General Government shall adopt such measures and take such action as will most effectually protect and promote the health of the people of the United States. [*Selected from several bills.*]

Collection and Diffusion of Information.

Sec. 7. That the Bureau of Public Health may, with the approval of the Secretary of the Interior, make investigations, both in the United States and, if necessary, in foreign countries, into the nature, origin, and prevention of contagious, epidemic, and other diseases, as well as the causes and conditions of particular outbreaks of disease in the United States, and may publish and distribute documents relating to the prevention of disease. [*Section* 4, *Senate Bill* 1334, 1886.]

Sec. 8. That to enable the Bureau of Public Health to acquire and have in its possession for distribution information on all subjects affecting the public health which require accurate and reliable scientific investigations, the Commission is hereby authorized, with the approval of the Secretary of the Treasury, to engage the services of experts in such laboratories in the United States as are best adapted by location, equipment, or special fitness to prosecute and complete the investigation required. [*Original.*]

Sec. 9. That as soon as practicable after this act shall take effect the Commissioners appointed from the Sanitary Districts shall each in his respective District examine all of the means and measures employed by State, municipal, and other health authorities to prevent the introduction of contagious and infectious diseases into the United States, and their spread from one State or Territory into another, and report the fact to the Bureau of Public Health, and the Commission shall embody these facts in a report to the Secretary of the Treasury, who shall transmit the same to Congress with such recommendations as he may deem important. Thereafter each Commissioner shall annually report upon the measures employed, with the result, in his Sanitary District to prevent the introduction, origin, and spread of contagious and infectious diseases, and the Commission shall embody the facts in its annual report to the Secretary of the Treasury. [*Original.*]

Sec. 10. That it shall also be the duty of the Bureau of Public Health to obtain information of the sanitary condition of foreign ports and places from which contagious and infectious diseases are or may be imported into the United States, and to this end the consular officers of the United States at such ports and places as shall be designated by the Bureau of Public Health, shall make to said Bureau weekly reports of the sanitary condition of the ports and places at which they are respectively stationed, according to such forms as said Bureau may prescribe; and the Bureau of Public Health shall also obtain, through all sources accessible, including State and municipal sanitary authorities throughout the United States, weekly reports of the sanitary condition of ports and places within the United States; and shall also, as far as it may be able, by means of the voluntary co-operation of State and municipal authorities, of public associations, and private persons, procure information relating to the climatic and other conditions affecting the public health, and the existence of epidemic, endemic, and other diseases; statistics relating to marriages, births, and deaths.

Sec. 11. That the Commission shall prepare, publish, and transmit to the medical officers of the Army, Navy, and the Marine Hospital Service, to collectors of customs, and to State and municipal health officers and authorities, weekly abstracts of the consular sanitary reports and other pertinent information received by the Bureau of Public Health. [*Section*]

Advising Departments of Government.

Sec. 12. That whenever any department of Government, or the Executive of any State or Territory, or the authorities of the District of Columbia, or the health authorities of any State or municipality, shall request information from the Bureau of Public Health in regard to any matter pertaining to the protection or promotion of the public health, said Bureau shall promptly furnish such information as it may have on record, together with any necessary or pertinent advice; and whenever information shall be received by the Bureau which the interests of the public health require should be promptly communicated to any department of the Government, or to any State or municipal officer, such information shall be forthwith furnished to the respective department or officer. [*Original.*]

Notification of Epidemic Diseases.

Sec. 13. That the Commission shall take such action by correspondence or conference as will tend most effectually to secure the co-operation of State, municipal, and local boards of health in establishing and maintaining an efficient and accurate system of notification of the existence and progress of contagious and infectious diseases in the United States, and said Commission shall also by co-operation with the proper health authorities of foreign nationalities and municipalities endeavor to extend to the United States a reliable system of international notification of the existence and progress of such diseases as cholera, yellow fever, typhus fever, and small-pox. [*Original.*]

Securing the Best Sanitary Condition of Vessels.

Sec. 14. That the Bureau of Public Health shall make such rules and regulations, with the approval of the Secretary of the Treasury, as are necessary to be observed by vessels at the port of departure and on the voyage, where such vessels sail from any foreign port or place, to secure the best sanitary condition of such vessel, her cargo, passengers, and crew, which shall be published and communicated to and enforced by the consular officers of the United States. None of the penalties herein imposed shall attach to any vessel, or owner or officer thereof, until a copy of this act, with the rules and regulations made in pursuance thereof, has been posted up in the office of the consul or other consular officer of the United States for ten days, in the port from which said vessel sailed; and the certificate of such consul or consular officer over his official signature shall be competent evidence of such posting in any court of the United States. [*Latter portion of Section* 3, *law of* 1893.]

Sec. 15. That the Bureau of Public Health shall, with the approval of the Secretary of the Treasury, from time to time issue to the consular officers of the United States, and to the medical officers serving at any foreign port, and otherwise make publicly known, the rules and regulations made by it, and approved by the Secretary of the Treasury, to be used and complied with by vessels in foreign ports for securing the best sanitary condition of such vessels, their cargoes, passengers, and crew, before their departure for any port in the United States, and in the course of the voyage, and all such other rules and regulations as shall be observed in the inspection of the same on the arrival thereof at any quarantine station at the port of destination, and for the disinfection and isolation of the same, and the treatment of cargo and persons on board, so as to prevent the introduction of cholera, yellow fever, or other contagious or infectious diseases. [*First portion of Section* 5, *law of* 1893.]

Preventing the Introduction of Contagious and Infectious Diseases.

Sec. 16. That it shall be unlawful for any merchant-ship or other vessel from any foreign port or place to enter any port of the United States except in accordance with the provisions of this act, and with such rules and regulations of State and municipal health authorities as may be made in pursuance of, or consistent with, this act; and any such vessel which shall enter, or attempt to enter, a port of the United States in violation thereof shall forfeit to the United States a sum, to be awarded in the discretion of the court, not exceeding $5,000, which shall be a lien upon said vessel, to be recovered by pro ceedings in the proper district court of the United States. In all such proceedings the United States district attorney for such district shall appear on behalf of the United States; and all such proceedings shall be conducted in accordance with the rules and laws governing cases of seizure of vessels for violation of the revenue laws of the United States. [*Section* 1, *law of* 1893.]

Sec. 17. That any vessel at any foreign port clearing for any port or place in the United States shall be required to obtain from the consul, vice-consul, or other consular officer of the United States at the port of departure, or from the medical officer where such officer has been detailed by the President for that purpose, a bill of health, in duplicate, in the form prescribed by the Secretary of the Treasury, setting forth the sanitary history and condition of said vessel, and that it has in all respects complied with the rules and regulations in such cases prescribed for securing the best sanitary condition of the said vessel, its cargo, passengers, and crew; and said consular or medical officer is required, before granting such duplicate bill of health, to be satisfied that the matters and things stated therein are true; and for his services in that behalf he shall be entitled to demand and receive such fees as shall by lawful regulation be allowed, to be accounted for as is required in other cases.

The President, in his discretion, is authorized to detail any medical officer of the Government to serve in the office of the consul at any foreign port for the purpose of furnishing information and making the inspection and giving the bills of health hereinbefore mentioned. Any vessel clearing and sailing from any such port without such bill of health, and entering any port of the United States, shall forfeit to the United States not more than $5,000, the amount to be determined by the court, which shall be a lien on the same, to be recovered by proceedings in the proper district court of the United States. In all such proceedings the United States district attorney for such district shall appear on behalf of the United States; and all such proceedings shall be conducted in accordance with the rules and laws governing cases of seizure of vessels for violation of the revenue laws of the United States. [*Section* 2 *of law of* 1893.]

Sec. 18. That it shall not be lawful for any vessel to enter any port of the United States to discharge its cargo, or land its passengers, except upon a certificate of the health officer at such quarantine station certifying that said rules and regulations have in all respects been observed and complied with, as well on his part as on the part of the said vessel and its master, in respect to the same and to its cargo, passengers, and crew; and the master of every such vessel shall produce and deliver to the collector of customs at said port of entry, together with the other papers of the vessel, the said bills of health required to be obtained at the port of departure, and the certificate herein required to be obtained from the health officer at the port of entry; and that the bills of health herein prescribed shall be considered as part of the ship's papers, and when duly certified to by the proper consular or other officer of the United States, over his official signature and seal, shall be accepted as evidence of the statements therein contained in any court of the United States. [*Latter part of section* 5, *law of* 1893.]

Sec. 19. That the Commission, with the approval of the Secretary of the Treasury, shall have authority to forbid entry of vessels from ports known or suspected to be infected with cholera, yellow fever, small-pox, or other declared quarantinable disease into all minor approaches to a port of entry or into any inlet or place within the jurisdiction of the United States not provided with a complete quarantine plant, in order to compel such vessels to be subjected to maritime sanitation at the quarantine station equipped for that purpose and commanding the scope of region in question. [*Sec.* 15, *House Bill* 9757, 1893.]

Sec. 20. That on the arrival of an infected vessel at any port not provided with proper facilities for treatment of the same, the Commission may remand said vessel, at its own expense, to the nearest national or other quarantine station where accommodations and appliances are provided for the necessary disinfection and treatment of the vessel, passengers, and cargo; and after treatment of any infected vessel at a national quarantine station, and after certificate shall have been given by the United States quarantine officer at said station that the vessel, cargo, and passengers are each and all free from infectious disease, or danger of conveying the same, said vessel shall be admitted to entry to any port of the United States named within the certificate. But at any ports where sufficient quarantine provision has been made by State or local authorities, the Commission may direct vessels bound for said ports to undergo quarantine at said State or local station. [*Sec.* 6, *law* 1893, *modified.*]

Preventing the Spread of Cholera and Yellow Fever from One State into Another.

Sec. 21. That whenever it shall be made to appear to the Commission that cholera or yellow fever exists in any State or Territory and that there is danger of the spread of such disease by the usual channels of transportation to other States and Territories, the Commission is authorized to adopt such rules and regulations with the approval of the Secretary of the Treasury, as, in its judgment, may be necessary in order to prevent the spread thereof from one State or Territory to another, and to employ such inspectors and other persons as may be necessary for the purpose aforesaid, and any person who shall knowingly disobey or violate any order, rule, or regulation made pursuant to the authority herein conferred shall be deemed guilty of a misdemeanor, punishable by a fine of not less than five hundred dollars and by imprisonment for a period of not less than one year. [*Senate Bill* 3467, 1888.]

Sec. 22. That rules and regulations framed and approved as herein authorized shall be promulgated, so that when cholera or yellow fever shall be ascertained by the Bureau to exist in any port or place within any one of the United States or Territories, or the District of Columbia, in such form as threatens its spread, as to prevent, as far as practicable, the communication of the same to other ports and places within other States by means of vessels and vehicles engaged in the transportation of goods or passengers between two or more States, or States and Territories, and the District of Columbia, whether by land or water; in that case, the Commission may select suitable localities for establishing stations on rivers and other lines of inter-State commerce and travel by railroads, and may cause to be erected necessary temporary buildings for the disinfection of passengers, baggage, cargoes, vessels, and vehicles, and may enforce such rules and regulations relating thereto as may have been prescribed therefor. It shall be the duty of the Bureau, so far as it lawfully may, in the execution of the powers conferred upon it by law, to correspond and co-operate with similar local officers, boards, and authorities acting under laws of the States, or Territories, or the District of Columbia, in sanitary measures, to prevent the introduction and spread of contagious and infectious diseases from foreign countries into the United States, and from one State or Territory into any other State or Territory by

means of commercial intercourse, or upon and along the lines of inter-State trade and travel; and to that end it shall be lawful for the Commission to confer upon any such local officer or board within or near the locality where his or its authority is exercised, power also to enforce the provisions of this act and any rules and regulations made in pursuance thereof. [*Sec.* 5, *of Senate Bill* 108. 1879, *modified.*]

Aid of State and Municipal Health Authorities.

Sec. 23. That the Commission shall, under the direction of the Secretary of the Treasury, co-operate with and aid State and municipal health authorities in the execution and enforcement of the rules and regulations of such authorities, and in the execution and enforcement of the rules and regulations made by the Commission and approved by the Secretary of the Treasury to prevent the introduction of contagious or infectious diseases into the United States from foreign countries, and into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia; and all rules and regulations made by the Commission and approved by the Secretary of the Treasury shall operate uniformly and in no manner discriminate against any port or place; and at such ports and places within the United States as have no quarantine regulations under State or municipal authority, where such regulations are, in the opinion of the Commission, necessary to prevent the introduction of contagious or infectious diseases into the United States from foreign countries, or into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia, and at such ports and places within the United States where quarantine regulations exist under the authority of the State or municipality which, in the opinion of the Commission, are not sufficient to prevent the introduction of such diseases into the United States, or into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia, the Commission shall, if in its judgment it is necessary and proper, make such additional rules and regulations as are necessary to prevent the introduction of such diseases into the United States from foreign countries, or into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia, and when said rules and regulations have been made they shall be promulgated by the Commission and enforced by the sanitary authorities of the States and municipalities, where the State or municipal health authorities will undertake to execute and enforce them; but if the State or municipal authorities shall fail or refuse to enforce said rules and regulations, the President shall execute and enforce the same and adopt such measures as in his judgment shall be necessary to prevent the introduction or spread of such diseases, and may detail or appoint officers for that purpose. [*Sec.* 3, *law* 1893, *modified.*]

Employment of Experts.

Sec. 24. That the President is authorized, when requested by the Bureau of Public Health, and when the same can be done without prejudice to the public service, to detail officers from the several Departments of the Government for temporary duty, to act under the direction of said Bureau, to carry out the provisions of this act; and such officers shall receive no additional compensation except for actual and necessary expenses incurred in the performance of such duties. When a detail of suitable officers cannot be made, the Commission may, with the approval of the Secretary of the Treasury, employ such experts and for such time and in such manner as the exigencies of the Service may require. [*Sec.* 5, *House Bill* 1526, 1893.]

Sec. 25. That whenever the proper authorities of a State shall surrender to the United States the use of the buildings and disinfecting apparatus at a State quarantine station, the Commission shall cause an examination thereof to be made by its own members, or by a competent person, or persons, and if the said station, buildings, and disinfecting apparatus be found adapted to the purposes of a quarantine, and the Commission approve of their use as such, the Secretary of the Treasury shall be authorized to receive them, and to pay a reasonable compensation to the State for their use. [*Sec.* 8, *law of* 1893, *modified.*]

Execution of the Orders, Rules, and Regulations of the Bureau of Public Health.

Sec. 26. That all orders, rules, and regulations of the Bureau of Public Health relating to Sanitation in any branch of the public Service, or to prevent the introduction of contagious and infectious diseases into the United States, and their spread from one State or Territory into another State or Territory, or the District of Columbia, through, or by means of any branch of the Public Service, the medical officers of such Service shall execute such orders, rules, and regulations, and to this end the Surgeon-General of the Army shall perform all such duties in respect to the Army, the Surgeon-General of the Navy shall perform all such duties in respect to the Navy, and the Surgeon-General of the Marine Hospital Service shall perform all such duties in respect to quarantine and quarantine regulations which are provided by this act.

Extraordinary Power given to the President.

Sec. 27. That whenever the Commission shall certify to the President, and it shall appear to his satisfaction that, by reason of the existence of cholera or other infectious or contagious diseases in a foreign country, there is serious danger of the introduction of the same into the United States, and that notwithstanding the quarantine defence this danger is so increased by the introduction of persons or property from such country that a suspension of the right to introduce the same is demanded in the interest of the public health, the President shall have power to prohibit, in whole or in part, the introduction of persons and property from such countries or places as he shall designate, and for such period of time as he may deem necessary. [*Sec.* 7, *law* 1893, *modified.*]

Special Appropriation.

Sec. 28. That there shall be, and hereby is, appropriated, out of any moneys in the Treasury not otherwise appropriated, the sum of one million dollars, to be expended, or so much of the same as may be necessary from time to time, under the direction of the President and according to his discretion, to meet emergencies arising in the execution of the provisions of this act. [*Sec.* 8, *laws*, 1893.]

Report, Printing, etc.

Sec. 29. That the Bureau of Public Health shall make an annual report of its operations to the Secretary of the Treasury, who shall transmit the same to Congress, with such recommendations as he may deem important to the public interests; and said report, if ordered to be printed by Congress, shall be done under the direction of the Board; and that all mail matter of whatever class relative to the Bureau of Public Health and its duties, and addressed to its secretary and indorsed "Official business, Bureau of Public Health," shall be transported free of postage; and if any person shall make use of any such indorsement to avoid the payment of postage on his private letter, package, or other matter in the mail, the person so offending shall be guilty of a misdemeanor, and be subject to a fine of five hundred dollars, to be prosecuted in any Court of competent jurisdiction. [*Senate Bill* 643, 1885.]

The New York State Medical Examinations.—A gentleman, an American, who has been educated in Germany, and who recently returned and underwent the examination for license to practise in this State, says that the examination passed by him was of the same character and extent as that which would be required in Germany. Why should it not be so?

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Original Articles.

PREVENTION OF BLINDNESS FROM OPHTHALMIA NEONATORUM THROUGH TREATMENT AND LEGISLATION.[1]

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MR. PRESIDENT AND GENTLEMEN: Interest in the prevention of blindness due to ophthalmia neonatorum having increased during the past twenty-five years, the author believes that a concerted effort on the part of the profession should be made to diminish its frequency; and to this end he has endeavored to summarize such facts as may serve to bring the subject before the Society, in the hope that good may be ultimately accomplished.

The importance of the subject is in direct proportion to the frequency with which blindness results from the operation of this cause, and those who have given the subject no consideration are invariably surprised on learning the magnitude of its operation.

My attention was first drawn in this direction by the results of an examination of the children in the Illinois State Institution for the Education of the Blind. In this institution there were two hundred and seven pupils. As near as possible, it was ascertained, as shown by the following table, that one hundred and sixteen, or 62.9 per cent., of these children lost their sight from communicable disease which could have been prevented had the requisite precautions been observed.

CAUSES.

Ophthalmia neonatorum (contagious)	44	
" purulent (contagious)	38	
" Trachomatous (contagious)	34	116
Congenital		25
Measles		3
Meningitis		5
Sympathetic inflammation		2
Scarlet fever (non-contagious)		4
Scrofula		9
Small-pox		18
Traumatism		18
Unknown		22
Total		222

Leaving out of account the unknown twenty-two, the above tabulation of two hundred cases, in which the cause could be ascertained, indicates the percentage of blindness due to each cause.

As indicated by the table, forty-four, or twenty-four per cent., of the total number lost their eyes from ophthalmia neonatorum. Somewhat surprised at the result, I was led to look up the observations of others, and found that this was not above the average.

Magnus has shown, in his extensive work, "Die Blindheit: ihre Entstehung und ihre Verhütung," that of children under sixteen years of age 38.78 per cent. became blind from ophthalmia neonatorum.

Fuchs found in an examination of 3,204 cases of blindness, in various parts of Europe, that 23.5 per cent. were due to ophthalmia of the new-born. An average of all the asylums of Germany gave 25.83 per cent. Similarly the returns of Austria and Hungary showed an average of 20.4 per cent. The New York State Institution for the Blind at Batavia, having 128 inmates, showed 23.4 per cent. blind from this cause.

[1] Read at the meeting of the Illinois State Medical Society, May 16, 1893.

Entire communities have been examined to determine the relative influence of the various causes of the production of blindness. In Brunswick twenty-eight per cent. and in Nassau thirteen per cent. were found to have lost their sight from ophthalmia neonatorum.

Fuchs estimates that at least ten per cent. of the blind of all ages, and in all the countries of Europe, are due to the operation of this one cause, making in Europe alone thirty thousand blind from ophthalmia neonatorum.

Being impressed with the magnitude of the influence of this cause, three questions become of interest: 1st. What are the results of prophylactic measures? 2d. What are the results of intelligent treatment? 3d. What has been and should be done by legislation?

Prophylaxis.—1st. The earliest available record of an effort to prevent ophthalmia neonatorum is that of Gibson in 1808. That he understood the indications is shown by his original propositions, which were made three-quarters of a century ago, and before the birth of our knowledge regarding antisepsis, and before the discovery of carbolic and salicylic acids. They are prophetic, concise, and complete, and constitute the generalization of modern facts.

First. Control the vaginal discharges as early as possible during pregnancy. Second. At the time of delivery remove the injurious secretions from the vagina. Third. Immediately after delivery clean the eyes of the infant with a fluid which shall remove the injurious material or destroy its action.

The next step was that of Bischoff, who suggested in 1875 the disinfection of the vagina by means of carbolic acid, and the eyes by means of salicylic acid. In 1876 Schiess proposed that midwives should disinfect the eyes immediately after birth.

At this time the importance of preliminary disinfection of the vagina became generally recognized and put in practice in all well-organized lying in hospitals. Still it was found impossible by this means alone to prevent the danger of infection. Though thoroughly removed, secretions will re-form during a protracted delivery; and notwithstanding this precaution, no small percentage of infection continued to exist.

In the opinion of Fuchs, infection does not always or even usually occur during the delivery, but afterward, when the child opens the eyes and admits the material which adheres to the lids and lashes; the admission of which is still further encouraged by winking: hence the importance of directing prophylactic efforts more particularly to the eyes.

The first demonstration regarding prophylaxis was made by Perringer. He observed that if undertaken within three minutes subsequent to the admission of pus, infection was prevented by the careful irrigation of the cul-de-sac with warm water and the subsequent application of cold compresses. These observations were verified by Abegg.

Schirmer, thinking the bath water was the greatest source of infection by being the medium of transferring the secretion from the body to the eyes, used a dry napkin to clean the face and interdicted the application of water to the face until after the second day.

Fieuzal advocated the irrigation of the eye with a four-tenths per cent. solution of carbolic acid and the subsequent application of cold compresses. Borax, salicylic acid, and chlorine water were in turn advocated and condemned.

After pursuing and abandoning in turn each of the

above suggestions, Credé secured immortal fame by his great discovery regarding the action of silver nitrate as a germicide of the highest order in this class of cases.

At first his method consisted of careful washing with a solution of borax, the application of a two per cent. solution of silver nitrate, and following this for twenty-four hours with compresses moistened with a solution of salicylic acid. By degrees this treatment was curtailed by the discontinuance of the preliminary use of borax and the subsequent compresses, leaving the silver portion of the treatment, which alone is known by his name.

Immediately after the delivery the eyes are carefully washed with plain water, and a single drop of a two per cent. solution of argentum nitrate is let fall from a pipette on to the cornea, over which the lids are immediately closed. No especial reaction is observed to follow, and after two days the redness has vanished. He found that in place of having a 10.8 per cent of ophthalmia neonatorum, as was the case previous to the adoption of antiseptic precautions, the development of the disease was reduced to one- or two-tenths of one per cent.

In one series of sixteen hundred births among a class of individuals in which gonorrhœa was always to be suspected, inflammation was observed to occur in but one or two cases. Reports of the brilliant results following this method of prophylaxis led to its being subjected to the test of experience and observation by the leading obstetricians of Europe.

The following table, compiled by Fuchs,[1] illustrates the results following the execution of the method as compared with the experience of the same observers before its adoption.

Comparison of Results of Various Methods of Prophylaxis in Ophthalmia Neonatorum.

Author.	Previous to Prophylaxis. Total number of births.	Cases of blennorrhœa.	Per cent.	After Inauguration of Prophylaxis. Prophylactic methods.	Total number of births.	Cases of blennorrhœa.	Per cent.
Abegg [1]	.....	....	.. .	Cleaning with water	.....	....	3.0
Schirmer [2]	.....	....	....	Dry cleaning	50	0	0.0
Bischoff [3]	.....	....	5.6	Salicylic acid	.....	....	2.6
Olshausen [4]	350	69	12.5	Two per cent. carbolic acid before ligating the cord. (First period.	137	12	8.8
Olshausen	.....	....	....	Two per cent. carbolic acid after ligating the cord. Second period.	166	6	3.6
Krukenberg [6]	1,266	92	7.3		82	11	13.4
Königstein [6]	1,092	51	4 8	First period	1,541	21	1.4
Credé [7]	2,897	314	10.8	Second period	1,160	1–2	0.1–0.2
Königstein	.....	.. .	...	Two per cent. silver nitrate solution	1,250	9	0.7
Krukenberg	.....	....	....	Two per cent. silver nitrate solution	703	1	0 14
Felsenreich [9]	1,889	82	4.3	Silver nitrate, first period	3,000	58	1.9
Felsenreich	.....	....	....	Silver nitrate, second period	2,100	21	1.0
Russel Simpson [9]	.....	...	11.76		.....	....	5.0
Bayer [10]	1,106	136	12.3		361	0	0 0

[1] Nagel's Jahresbericht f. Augenh. für 1881, p. 337. [2] Citirt von Königstein. [3] Horner, Handbuch der Kinderkrankheiten, herausg. v. Gerhardt, V. B., 2. Abth., p. 264. [4] Berliner klin. Wochenschrift, 1881, No. 8. [5] Archiv für Gynäkologie, XXII. Bd., p. 329. [6] Archiv für Kinderheilkunde, III. Bd., 1882. [7] Archiv für Gynakologie, XXI. Bd., p. 181. [8] Wiener med. Wochenschrift, 1883, No. 35. [9] Annales d'oculistique, XC. Bd., p. 145. Scheint die Catarrhe mit zu den Blennorrhöen gezählt zu haben. [10] Archiv für Gynäkologie, XXX. Bd.

No stronger proof of the efficiency of the method would seem to be required. It has been endorsed by the leading obstetricians and oculists of Europe and America, and is now in use in most of the lying-in hospitals of the world. Yet the objection will be raised here that, though it is undoubtedly correct and should be practised in hospitals where women of doubtful character are the rule, it is too heroic for private practice when one knows his patient to be free from gonorrhœal infection.

This question is one of vital importance, and deserves discussion. It has been my lot in the past few years to see eyes lost from ophthalmia neonatorum in which the mothers were wives of clergymen, merchants, and farmers who have never been suspected, but in whose cases the development of purulent ophthalmia in the eyes of the infant is the best evidence of the existence of at least a malignant leucorrhœa. It is well known that gleet, which in the male would be a source of perpetual or periodic discomfort, owing to the loose folds of the vagina is often never suspected by the incumbent, much less her physician. On this account it is never certain where the line shall be drawn, and when it is safe to omit the remedy. Besides the remedy is absolutely safe and harmless in any case. At most, a slight swelling and redness is observed, which disappears in forty-eight hours, and should not stand as against the danger of infection.

Prevalence of gonorrhœa is in proportion to the density of population, and hence the frequency of ophthalmia neonatorum is greater in Europe than in America—is greater in large cities than in country towns; but even in small towns the comparative infrequency of the disease makes it relatively more treacherous and dangerous; for a danger which is kept permanently before the mind will assert itself and provoke popular demand for means by which it shall be removed; while one which is rarely observed is easily forgotten, and we are only alarmed by its presence after it has stricken its victim.

In Sangamon County, to my knowledge, within a period of six months, the blindness of two children from ophthalmia neonatorum would have been prevented had the Credé method been in general use. In each case the father had contracted gonorrhœa, while the mother was ignorant of its existence. Would not the prevention of blindness in these two compensate for a slight additional attention in the case of many? The answer to this will depend somewhat on the position taken regarding treatment.

Second. What are the facts regarding treatment?

Dr. Pendergast, health officer of Cincinnati, tells us that one-third of the deliveries of that city are conducted by midwives, most of whom consider themselves competent to take charge of a simple inflammation of the eyes.

A large portion of the remainder are not seen by a physician more than once after the delivery, and the care of the child is left in the hands of the nurse, who is usually as conceited as the midwife. The following too often occurs: During the first and second days the eyes are kept closed. On the third or fourth day a slight amount of discharge, it may be with swelling, is observed. Nurse takes little account of it, applies chamomile tea or mother's milk, and hopes it will be better. Next day there may be more swelling or discharge. Baby has taken cold or seen too much light. More mother's milk or chamomile tea. Perhaps a poultice of slippery elm or rotten apples is applied. If worse on the following day, a physician is called. He may or may not secure a view of the cornea. In the absence of an available specialist he assumes charge, and does the best he knows. A solution of boric acid or other mild germicide is prescribed, and they are told to clean the eyes every half hour, and to let him hear on the following day. The nurse executes the directions, for she is now alarmed. The lids are not everted. The acrid discharge remains. The cornea is macerated and infected, and the chances are, twenty-five in one hundred, that sight will be permanently impaired.

[1] Die Ursachen und die Verhütung der Blindheit. p. 129.

My purpose, at this juncture, is to call attention to the fact that reports from a number of careful and conscientious observers go to show that one hundred per cent. of these cases should escape injury of the cornea, and recover with unimpaired vision, if each case were reported immediately to a physician, and each physician, with the courage of his convictions, put his information into practice without hesitation.

In order to emphasize the results of intelligent treatment, reference is directed to the observations of Dr. S. C. Ayres, of Cincinnati, who has published a comparison between two series of one hundred cases each.

The first series is that of one hundred consecutive cases taken from private practice. In each case is shown the age of the child when first seen; what complication, if any: and result in each eye. These cases were not neglected for want of means, but for the want of knowledge regarding the importance of early and correct treatment.

From a study of this series, the following has been adduced: Forty-two per cent. had corneal complication at the time of the first visit, leading to permanent impairment of sight. Fifty eight per cent. were free from corneal complication at the date of the first visit. Of these, in no case did the cornea become involved during treatment.

The second series was that of one hundred consecutive cases treated from the commencement in the Cincinnati Hospital. No case in this entire series developed corneal complication or suffered impairment of vision in a single eye. The reputation of Dr. Ayres for conservatism in observation and expression, together with the fact that one simple line of treatment has conducted one hundred consecutive cases to a successful issue, leads me to quote from him regarding the treatment which has been pursued in the Cincinnati Hospital during a period of fifteen years:

"The treatment of these cases, which was carried out almost entirely by the internes under the supervision of the attending oculist on duty, was, with little variation, as follows: The eyes were cleansed every hour or half hour or even oftener, in cases where the discharge was very profuse, by gently separating the eyelids with the fingers and removing the accumulated pus with cotton or a camel's hair brush. A solution of alum, gr. ij., ad aqua, ℥ ss., or of argent. nitr., gr. ij., ad aqua, ℥ j., was dropped into the eyes every hour or two. Cold compresses were used in some cases, and seemed to be very grateful. Every morning the eyelids were everted and brushed with a solution of argent. nitrat., grs. v., ad xx., ad aqua dest., ℥ j, according to the severity of the case, and the lids washed off with tepid water. Unless the swelling of the lids mechanically prevented it, the cornea was inspected daily in each case. As the case improved the interval between the instillations of alum and argent. nitrat. was continued in a weaker or stronger solution, until every trace of the disease had disappeared.

"The greatest stress was laid upon the thorough cleansing of the eye in the acute stages of the disease; and this was attended to not only by day, but by night. To this part of the treatment do we owe the immunity of the cornea from ulceration. The pus is neutralized or coagulated by the action of the nitrat. and alum, and its corroding effects thus prevented.

"Another important point in hospital treatment is that cases receive attention immediately the slightest swelling of the lids is noticed, and the severity of the disease is probably thus diminished."

Note.—Upon recent correspondence with Dr. Ayres, he writes: "At the present time I use a solution of sublimate more frequently; but doubt if it is better than alum. When a child is born in the Cincinnati Hospital its eyes are treated at once with a solution of nitrate of silver, and this prophylactic treatment has about stamped the disease out, so that it is seldom seen."

To further illustrate the amenability of the disease to treatment, at my suggestion Dr. H. W. Woodruff, house surgeon of the Illinois Charitable Eye and Ear Infirmary, searched the records of the infirmary for the year commencing April 1, 1892, and ending April 1, 1893. He found the total number of cases treated to be fifty-three. In four cases the cornea of both eyes had sloughed, resulting in blindness. In eight cases the cornea was ulcerated, recovering with impaired vision. Forty-one, admitted before corneal complication had occurred, recovered with unimpaired vision.

In this report it appears that twenty-two and a half per cent. of the cases suffered irretrievable injury before they were reported; while of the seventy seven and a half per cent. in which treatment was commenced before corneal complication occurred, none suffered impairment or loss of vision.

In these cases the local treatment was substantially that pursued in the Cincinnati Hospital, except that many were treated as out patients, and hence received less care and regular attention.

In the treatment of ophthalmia neonatorum, the silver nitrate has given better results than any other agent, and on account of merit has been accorded supremacy over all others. The results, as shown above, so far as efficiency is concerned, are such as leave little more to be desired. Besides, there is nothing in the treatment which cannot be carried out by any intelligent physician who will take a little pains to acquire the manipulations of the lids. When the swelling is great, they are everted by slight pressure on the lids with the first and second fingers; but as the swelling recedes, it often becomes necessary to exercise some traction on the cilia, when the eversion is accomplished with or without the aid of a pencil or similar object over which the lids may be turned. It may not be amiss to state that there is but one proper position for the patient in treating ophthalmia neonatorum, viz.: body recumbent in the lap of nurse or attendant; hands held, feet free, with head of child resting between the knees of the physician. In this position the efforts of the child do not move the head, and the touch of the operator may be both firm and gentle.

Legislation.—Third. Our third inquiry is relative to legislation, to take the management of these cases away from the irresponsible and ignorant, and intrust them to the intelligent guidance of a qualified physician.

The first legislation affecting the prevention of blindness by means of limiting the liberty of nurses and midwives occurred in Switzerland in 1865. Here it was made obligatory on the part of midwives and nurses to report every case of ophthalmia of the new-born immediately upon its discovery. Professor Horner became the champion of the legislative efforts, and devoted himself, through his personality and skill, toward increasing the efficiency of the law. During his lifetime he proudly enjoyed the knowledge of the fact that no child born since 1865 was admitted into the large Institution for the Blind in Zurich with sight lost from ophthalmia neonatorum.

In Prussia the regulations for 1878 give particular directions and instructions concerning this important point. In France, in 1888, the official directions for nurses and midwives urged the danger of delay. Austria, in 1882, established official directions for nurses, by which it now requires that every nurse or midwife, upon the development of ophthalmia of the new-born, should immediately call a physician.

The Hungarian secretary of the interior, this same year, issued a pamphlet upon the subject of the ophthalmia of infants, designed for distribution among the nurses of that country. In this country the first steps affecting legislation for the prevention of blindness were inaugurated by Dr. Lucian Howe, of Buffalo, N. Y. In 1887 he presented the matter to the American Ophthalmological Society, which was followed by an animated discussion, and the appointment of the committee to report on the "Causes and Prevention of Blindness," consisting of Lucian Howe, Swan Burnett, and Joseph A. Andrews. In 1889 Dr. Howe read a paper at the meeting

of the New York State Medical Society on "Purulent Conjunctivitis of Infancy," and closed with the recommendation that the committee on legislation formulate a law requiring nurses and midwives to report at once to some legally qualified practitioner. This was done, and at the next meeting of the Legislature the following law was passed:

"The people of the State of New York, represented in Senate and Assembly, do enact as follows:

"SECTION 1. Should any midwife or nurse having charge of an infant in this State, notice that one or both eyes of such infant are inflamed or reddened at any time within two weeks after its birth, it shall be the duty of such midwife or nurse so having charge of such infant to report the fact in writing, within six hours, to the health officer or some legally qualified practitioner of medicine of the city, town, or district in which the parents of the infant reside.

"SECTION 2. Any failure to comply with the provisions of this act shall be punished by a fine not to exceed one hundred dollars, or imprisonment not to exceed six months, or both.

"SECTION 3. This act shall take effect on the first of September, eighteen hundred and ninety."

Since that time a similar bill has passed the Legislature of Maine. Bills to effect the same purpose have been introduced this past winter in the Legislatures of Ohio, Pennsylvania, Minnesota, Illinois, and the Dominion of Canada.

The New York bill, with a slight modification, was introduced at my suggestion by Senator Higbee, in the Illinois Legislature. It has passed the senate and is pending in the house. Owing to the unusual length of the calendar and the urgency of special legislation, the bill may not reach final consideration before adjournment; but in any event the progress thus far has been educational, and the foundation for future efforts in this direction has been laid. The matter is one of importance, and it becomes the duty of each of us to make it a personal matter to urge the establishment and enforcement of laws in this or other States requiring the surrender of the treatment of infantile blennorrhœa from incompetent hands.

The effect of the law in Zurich has been better than we can hope for here; but if every physician in Illinois should prepare himself with the simple knowledge and skill required for the management of these cases, and not shrink from doing his duty, and compelling midwives and nurses to do theirs, the result will be a great economic gain to the State, besides the prevention of incalculable misery to numerous members of generations yet unborn.

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PRIMARY SARCOMA OF THE TONSIL.[1]

TWO CASES OF EXTERNAL PHARYNGOTOMY.

BY ROSWELL PARK, A.M., M.D.,

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THE subject of primary sarcoma of the tonsil has already come up before this Association more than once, but is itself of sufficient importance to justify the report of the following two cases upon which operation was performed:

CASE I.—E. L. M——, aged fifty-eight. Duration of present trouble somewhat uncertain. He has had chronic tonsillitis, for which he has been treated by Dr. Stockton for some time: but his complaint of acute pain and soreness, as well as the altered appearance of the parts, only dates back about three weeks. He was sent to me by Dr. Stockton, October 29, 1890, because of a suspicious appearance of the parts in the pharynx. At that time he presented an enlarged, ulcerated, ragged, left tonsil, which gave him severe pain and caused considerable difficulty in breathing and swallowing. A small piece of the ragged border, examined under the microscope, gave appearances which could hardly be explained by round-cell inflammatory infiltration, but which seemed to me distinctly malignant. The base upon which this ulcer was seated was hard, but on the day above mentioned there was no involvement of the palate. Two or three neighboring cervical nodes were enlarged. The family history was good. Four days later the patient was very much worse in every respect. There were more dysphagia and dyspnœa; the neighboring lymph nodes were apparently all involved, and his pain was excessive. Operation was then fully discussed with the patient and his physician, and accepted. November 4th it was performed at the Buffalo General Hospital. Inasmuch as the lymphatics were known to be extensively involved, and because of evident extension of infiltration and ulceration on to the soft palate and the pillars of the fauces, I decided upon external pharyngotomy. A long incision was made from the ear down to the level of the hyoid bone, along the anterior border of the sterno-mastoid. I soon came upon a packet of enlarged lymph nodes, altogether as large as a peach-stone. These were adherent to the carotid sheath. Before removing them entirely I made a second incision at right angle to the first, completely through the cheek and nearly up to the angle of the mouth. This extended down to the bone of the jaw in the neighborhood of the angle, where it was divided with a chain-saw. I then made a tracheotomy, putting in a large tube at the level of the thyroid isthmus, which was divided. I next completed the extirpation of the lymph node above referred to, and then worked down to the tonsil, which was reached without much difficulty.

[1] Read before the American Surgical Association, June 1, 1893.

After isolating it, I opened the pharynx and excised the tonsil, going well down below it, and removing with it as much of the soft palate and uvula as appeared affected. To secure access to the tonsil I had, of course, to divide the digastric, the facial artery and veins, which were tied close to their origin, the palato-glossus, the palato pharyngeus, and part of the pterygoids, the masseter, but not the hypoglossal nerve. I mention the latter particularly because Mikulicz, whose method I in the main followed, has mentioned division of this nerve as a part of the operation. I did not resect the upper portion of the divided jaw, but before completing the operation drilled and wired the two portions together again. The divided pharyngeal mucous membrane was cauterized with a Paquelin cautery. The pharyngeal wound was completely closed with silk sutures, likewise the external wound. A small opening was left for drainage. The operation lasted over an hour and a half; the shock was not serious.

Two days later the trachea tube was removed. Five days later the patient had suffered no particular disturbance, but was rather apathetic. Even from the first he could swallow water and milk, but after a few days there was a leakage of fluids through the external wound. He was fed largely by the rectum.

The patient completely recovered after a somewhat tedious convalescence, and is to-day, two years and a half later, completely well, save that a small sinus upon the cheek, at the site of the original incision, occasionally discharges a little pus, due, probably, to the presence of the silver sutures, which are presumably causing a little irritation, but which he declines to have removed. Motion of the jaw is almost perfect.

A microscopical examination of the parts removed showed the tumor to be a round-cell sarcoma with considerable inflammation, infiltration, and such an unusual number of blood-vessels as to almost entitle it to the designation of angio-sarcoma.

Case II. *Primary sarcoma of the tonsil and pharynx.*—Richard B——, aged thirty-one. Family history unimportant. Always healthy until four or five months ago, when he began to have slight sore-throat and hoarseness. Since then he has lost greatly in weight. He is an unintelligent working-man, who seems to have given but little thought to his condition. Three weeks previous to my seeing him he first noticed a tumor of the right tonsil, which has steadily increased in size up to date. Now —April 30, 1891—he has severe pain in deglutition. He can only swallow liquids, and complains of severe pain along that side of his neck, and speaks very hoarsely. There is a growth projecting from the right side into the oro-pharynx as large as a small orange, 7 or 8 ctm. in diameter, which pushes the uvula off to the opposite side and descends about an inch into the pharynx, rises in the naso-pharynx higher than can be seen, and almost completely stops up the oro-pharyngeal aperture. The cervical lymphatics on each side are enlarged. The growth is moderately firm, but not movable. His condition is desperate, not to say distressing, and he and his family willingly accept an operation, the probably unfavorable outcome of which is fully explained to them.

May 6, 1891, operation at the Buffalo General Hospital, in clinic, chloroform being the anæsthetic; patient having been carefully prepared for the same. The steps of the operation were quite similar to those of the previous case, a long incision being made from the ear to the level of the cricoid cartilage along the anterior border of the mastoid. The lower part of this incision was utilized for the ligation of the common carotid. Then tracheotomy below the isthmus of the thyroid was made. Then, deepening the upper part of the first incision and dividing the cheek, as in the other case, the jaw was divided just in front of the angle. Next attack was made upon the tumor proper, taking pains, as before, not to divide the hypoglossal nerve. The tumor itself was taken out with great difficulty, and was found to extend upward into regions about the base of the skull where it could not be followed. As it was, I removed nearly all of the soft palate on that side in the effort to extirpate it. There was no serious hemorrhage except from a trifling injury to the wall of the internal jugular, which I finally had to tie. The jaw was reunited with silver wire, and the balance of the wound was closed except at its lower part for drainage.

The patient rallied well from the operation, but died on the fourth day, of exhaustion. So much of the wound as was closed by suture had all united *per primam*. A microscopical examination of the growth showed it to be a small, round-cell sarcoma. I feel sure that the outcome of this operation would have been quite different had the patient been operated on three or four weeks earlier.

These are the only cases of primary cancer of the tonsil upon which I have operated. At least two other cases have come under my observation—one six or seven years ago; the other during the past winter, in which the disease had advanced too far. This last was a man, aged fifty-one, seen in November, 1892, whose throat trouble, according to his own account, dated back about six months. From his own statements and those of his physician I am quite positive that the original ulceration began upon the tonsil. When I saw him the tumor was as large as a small billiard-ball, and almost completely occluded the pharynx. Its inner surface was ragged and ulcerated. There was an external tumor as well, which the patient had been foolishly poulticing, and which had been, and was, discharging thin pyoid material. His general health was rapidly deteriorating, and he did not live long.

Altogether, then, I have seen four cases of primary cancer of the tonsil within about six years, and report them in this group because of the rarity of the condition, if one may judge from the literature of the subject.

THE MANAGEMENT OF FOREIGN BODIES IN THE AIR-PASSAGES.[1]

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In considering the question as to the management of foreign bodies in the air-passages, I think I may safely omit lengthy excursions into the literature of the subject. It is certainly interesting, from a historical stand-point, to study what the ancients, beginning with Hippocrates, the *divus pater medicinæ*, had to say on this subject; or what reference we might find in the writings of the mediæval authors, or in the literature of more modern times. But for practical reasons, and especially from a feeling of due consideration for the rights of other essayists, it is probably best to simply consider the question from our present knowledge of the subject; that is, to investigate what the experience of to-day, with the present methods of examination and operative procedures, teaches us to be the most rational plan of dealing with foreign bodies in the air-passages. For this reason, therefore, I shall also not enter into an enumeration of all the extraneous substances that have found their way into the air-passages, further than to say that anything from a shoe button to a five-dollar gold-piece may be found in the respiratory tract; and I shall, for like reasons, omit reference to the various exigencies that permitted these foreign bodies to lodge in the air-passages. Let us simply suppose that we have to deal with the fact that a foreign body is somewhere lodged in the air passages.

It is obvious that such a foreign body ought to be removed as soon as possible. The presence of a foreign body anywhere in the respiratory tract constitutes a danger, immediate or remote, to the life of the patient. This danger, certainly, varies in degree according to the location, size, or nature of the foreign body. While it is very slight and generally remote in cases where the foreign body is in the nose, the post-nasal space, or the pharynx,

[1] Read before the Ohio State Medical Society, June 29, 1893.

it increases rapidly in gravity whenever the foreign body has invaded the deeper parts and commences to embarrass the respiratory function, either directly by obstructing the air-passages, or indirectly by pressing upon the soft posterior wall of the windpipe from within the œsophagus. We must, therefore, look upon the presence of a foreign body in the deeper air passages as a constant menace to the life of the patient, notwithstanding the well-recorded fact that occasionally foreign bodies were lodged for a long time in the air-passages, yet did not create any serious disturbance; or where they were expelled, after a shorter or longer term, by nature's own efforts. Such cases are simply exceptions. The number of cases is much larger where the most serious results followed the entrance into the air-passages of extraneous substances, when the expectant method prevailed. I shall not tire you with statistics made up by various compilators, regarding the question of interference or non-interference in such cases. But I may state that ample experience has shown the mortality to be much greater (in fact again as great) in cases where the foreign body was not removed, than in the cases where operations were undertaken for the relief of the patient. *Laisser aller* is a dangerous maxim in these cases; many a life might have been saved by a timely operation.

I shall briefly relate two cases from a larger number of my own, of which the first apparently contradicts these statements, while the second confirms them.

Case I.—Mr. W. D——, aged thirty-five, was quietly standing at his window one Saturday afternoon in May, 1890, when he felt something work up in his throat. Before it could be ejected it slipped down again; he immediately experienced a feeling of suffocation and the breathing became difficult. Dr. N. P. Dandridge, who was consulted, failed to discover anything wrong with the young man. The patient had eaten green peas with his dinner, and expressed himself as confident that a pea had slipped down the trachea. The breathing became easier for a while; but when the troublesome sensation could not be relieved, Dr. Dandridge and Dr. William Carson examined the patient again, making a very thorough physical examination, without being able to locate the foreign body. Although the patient was at intervals entirely free of any annoying sensation, he still insisted that the pea was somewhere in his chest. Later on in the afternoon the patient had severe paroxysms of coughing, when Dr. C. R. Holmes was consulted, who referred the patient to me. The patient was one of those individuals in whom it is easy to inspect, with the laryngoscope, the larger part of the trachea. But neither this nor repeated physical examinations could produce a positive proof as to the presence or whereabouts of the foreign body. In fact, there seemed to be a general doubt among the physicians as to his actually having a foreign body in his air-passages. In the evening the patient was taken to the gymnasium, and hung head downward, and pounded on the back and chest, in the hope of removing the body by gravitation, but without avail. That night and Sunday were passed in great distress, the frequent paroxysms of coughing were very violent. Monday gave no relief, and Tuesday morning he felt very exhausted. The chest was so painful that he endeavored to suppress the cough as much as possible. Tuesday morning, sixty six hours after the beginning of the trouble, he suddenly had a severe coughing paroxysm, during which he coughed up a large sized green pea. In a few days all the above mentioned symptoms disappeared, and he has never experienced any ill effects since.

Case II.—Miss E. R——, sixteen years of age, while eating soup about two months ago, had a severe choking spell, and declared that she had swallowed a bone. She soon became dyspnœic, and physicians were sent for. When Drs. Schoemer, Schwagmeyer and Topmöller arrived they found the girl unconscious; there was marked dyspnœa and pronounced cyanosis. Failing to discover a foreign body in the pharynx or in the upper larynx they summoned me in consultation. Upon arrival, about one hour after the accident, I found the patient lying on a sofa, unconscious, and somewhat cyanotic. She was breathing with great difficulty, the loud inspiratory noise being audible all over the room. The pulse was small, indistinct, and very rapid. During inspiration the jugular and epigastric regions were deeply retracted.

A laryngoscopic examination could be made with the greatest difficulty only, on account of the comatose condition of the patient. However, I was enabled to determine that there was no foreign body in the larynx, but thought to have twice seen a whitish substance below the vocal cords, without, however, being absolutely sure of it. It may be added that the father of the girl, a very sensible man, had some doubts about his daughter actually having a foreign body in her throat, since she had had choking spells of a hysterical order before, though of a less severity.

After a brief consultation immediate tracheotomy was decided upon, as the patient was rapidly sinking. Accordingly the high tracheotomy was done. I selected this instead of the low operation, because the surgeon is able to do it in much less time, which is of importance when death from suffocation is impending; and secondly, because an opening in the upper tracheal rings is more adapted to the removal of a foreign body lodged in the subglottic space than the opening afforded by the lower tracheotomy. No attempt was made at the time of the operation to find the foreign body, as the patient was almost apnœic. But within a few days I began the search for the foreign body, and discovered it impacted in the space above the wound channel. In the presence of the physicians who had seen the case with me, I removed, with a small pair of curved forceps, a quadrangular piece of bone, of about the size of a five-cent piece, through the tracheal opening, from the subglottic space, where it had been held firmly impacted by its rough edges. The patient, after the removal of the foreign body, made a quick and uninterrupted recovery.

If we analyze these two cases we may arrive at the conclusion that, in the first case, tracheotomy would not have been called for, for two reasons: Firstly, because there was some doubt regarding the pea having actually entered the air-passages; secondly, because the patient recovered spontaneously; while in the second case the threatening symptoms demanded, and the recovery of the foreign body justified, the operation. Now, after a number of years have passed since the first case made the spontaneous recovery, I must confess that I am at present of the opinion that I ought to have recommended tracheotomy in the first case also. That the foreign body would be spontaneously expelled is a fact that could not be anticipated; it is certainly the exception, and our therapeutical measures ought not to be guided by exceptions. The proportion of cases where patients under similar conditions perish without operation, is much larger than where an operation is performed. Some authors place this proportion of mortality as about two to one. I recollect a case, from the practice of a colleague, which illustrates this point, and which I may be permitted to briefly mention, as it never has been published. A vigorous young man was unfortunate enough to draw into his windpipe a dried white bean, which he held playfully in his mouth. After a severe coughing paroxysm the patient had a sensation of pressure below the sternum. A physician was consulted, who, after a thorough examination, proposed tracheotomy. This was refused, even when after periods of temporary relief excessive cough and difficult breathing returned at short intervals. The patient died about four months after the accident, of pneumonia. It is reasonable to suppose that by an early tracheotomy the foreign body might have been removed, or its expulsion facilitated. And while I am far from asserting that all cases in which tracheotomy is done will get well, I still believe that the chances are a great deal better for the patient if the operation is performed. There was also some doubt in my second case as to the presence of a foreign body; but the history of the case, as well as the threatening symptoms, demanded an immediate opera-

tion, and the possible failure of finding the foreign body after the operation could not greatly have militated against the necessity of the operation.

If we, therefore, concede that foreign bodies ought to be removed from the air-passages in all cases, we may briefly examine the different methods.

We may safely omit from discussion such obsolete methods as causing the patient to sneeze or to vomit, or that of succussion of the chest and back of the patient while he is put in a position with his head hanging downward. Although they may have occasionally aided the expulsion of the foreign body, they are generally futile, and at times even dangerous, inasmuch as often valuable time is lost with such procedures.

The last-named measure is also liable to cause spasm of the glottis if the foreign body should happen to strike the lower surface of the vocal cords, or may lead to impaction of the foreign body in the subglottic region.

There remain, then, operative measures only, which are either endo laryngeal, *i.e.*, the removal of foreign bodies by instruments introduced through the mouth, or extra-laryngeal, *i.e.*, the opening of the air-passages for the purpose of relieving dyspnœa and of removing the foreign body.

It stands to reason that we should always try to remove the foreign body from the pharynx and from the larynx by the endo-laryngeal method; that, on the other hand, the extra-laryngeal method is indicated in such cases where foreign bodies have entered the trachea or bronchi; or whenever the life of the patient is in immediate danger of suffocation, when there is no time or no possibility of making attempts at endo laryngeal operations. This last indication permits, of course, of a certain latitude, as being greatly dependent upon the circumstances of the case and the dexterity of the physician. That tracheotomy ought also to be performed in cases where the foreign body has entered the bronchial tubes, is advised, not so much with a view of extracting the foreign body from the bronchus, as for the purpose of directly exciting paroxysms of cough, and thus to facilitate the expulsion of the foreign body through the artificial opening.

The foregoing remarks refer mainly to such cases where there is no doubt that a foreign body has actually entered the air-passages. I am, however, also of the opinion that in doubtful cases, where there is no absolute proof of the presence of a foreign body in the air passages, yet where there is good and sufficient reason to believe, by circumstantial evidence as it were, that an extraneous substance is lodged somewhere in the air-passages, that in such cases we should give the patient the benefit of the doubt. And while I am far from speaking lightly of the operation of tracheotomy, I cannot help thinking that in many cases of doubt it will help to save life.

141 Garfield Place.

Disinfection (?) of Baggage on the Russo-German Frontier.—The process as witnessed at Eydtkuhnen (*The Lancet*) was carried out by women. The top and sides of each package were wiped over with a damp flannel that had been dipped into some hot fluid. The fluid was black with dirt. With the same flannel the upper surface of each article contained in the boxes was washed over, irrespectively of its nature, woollen clothes, boots, and white shirts receiving the same dirty smear. The inner surfaces of folded articles were not touched. Linen that had been worn was detained for disinfection by steam.

Total Abstinence in the Indian Army.—The membership of the Indian Army Temperance Association has reached its highest point. The whole strength of the British forces in India is about 68,000, and as there are 20,111 men who are abstainers, the progress of sobriety has been remarkable. At Singapore, 130 artillerymen out of a total strength of 200 are abstainers.

THE VALUE OF EARLY URETHRAL INJECTIONS IN THE TREATMENT OF ACUTE GONORRHŒA.

By JAMES PORTER FISKE, M.D.,

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As a rule, early urethral injections in gonorrhœa are looked upon with disfavor, and regarded as meddlesome treatment.

Many physicians, at the present day, regard early urethral injections as an invitation to the gonococci to invade the neck of the bladder. What I wish to mention here is the feasibility of clearing out the anterior urethral canal, in acute gonorrhœa, by injecting a mild cleansing solution, and at the same time not endangering the deep urethra.

If we can keep the urethral canal fairly clean and prevent the discharge from accumulating, not only in the canal at large, but in the various sinuses and pockets leading thereto, we are gaining a very important point in our treatment of the inflammation, and we are conducting it on sound surgical principles, viz., irrigation and drainage.

We have all seen cases where the penis is hot and swollen, and the urethra giving vent to a purulent discharge, irritating and very profuse; so profuse that the urethral canal is seemingly almost ready to burst. The urethra is really a great sinus, the walls of which are acutely inflamed, and giving out these large amounts of pus. Such a condition, in any other part of the body, would lead the surgeon to lay open the sinus, irrigate, and obtain free drainage. This we cannot do. But we can clear away temporarily the inflammatory products, and so give free drainage to the tract for the time being.

How is this to be accomplished? Simply by urethral injections. We must use a fluid absolutely non-irritating, and yet preferably an antiseptic. A one-half per cent. salt solution, at a temperature of 30° to 32° C., is the ideal fluid.

The method employed determines whether this procedure will be a success or a disastrous failure. Use a blunt-nozzled urethral syringe, and absolutely no force in emptying it, and most gratifying results will be obtained.

In employing this method the operator must remember never to inject one drop of the solution beyond the point where the patient experiences the slightest sense of fulness in the perineum, or there is reason to believe the fluid has found its way up to the compressor urethræ. At this point release the fluid and repeat the procedure, and so thoroughly flush out the anterior canal. In irrigation by this method it is necessary to repeat once, *i.e.*, use two syringefuls at each sitting.

What is effected by this method of treatment? Instead of the urethral canal being clogged up with a mass of inflammatory products, we obtain a canal comparatively free from discharge for the time being; and from my results I am satisfied, if this procedure be properly done, we decidedly lessen the chances of a deep urethritis, or accompanying epididymitis.

This urethral flushing will have to be repeated every two to four hours at first, and later less frequently, as the discharge decreases in amount.

As a result, we actually lessen the severity of the symptoms of the acute stage, and may shorten the duration of this stage. I have noticed that two prominent symptoms are invariably relieved, viz., pain on urination and that feeling of general uncomfortableness in the region of the perineum and urethra.

We distinctly lessen the chances of gonorrhœal bubo, by preventing the accumulation of pus; and in addition, it gives to a patient a sense of cleanliness attained by no other method.

Of the radical cure of acute gonorrhœa, two methods have been placed before the profession. One, the method of injecting strong silver nitrate solution (grs. lx. to

℥ j.) into the urethra; the other, that of continuous irrigation.

The use of the first, at the present day, would be considered little less than malpractice; and of the second, we must notice that while it is being carried out it entails the necessity of a foreign body, usually a catheter with openings directed backward, lying in the urethral canal, and irritating the sensitive mucous membrane by its presence. This latter method, that of continuous irrigation, has a very limited use, necessitating as it does the patient taking to his bed.

While the measure I am advocating is in no sense a radical cure, still I am convinced it accomplishes much that is claimed for the more severe procedure (continuous irrigation) by its most enthusiastic advocates.

I have selected two cases which I shall report, in which I carried out this method of urethral injections; the results, though showing nothing phenomenal, still were highly satisfactory both to my patients and myself. I should state that I have never had a case of gonorrhœal bubo or deep urethritis follow this procedure. It does not materially shorten the duration, in the great majority of cases; but it does alleviate symptoms, a very important point, and it does, when properly carried out, lessen the chances of complications.

Case I.—W. B——, aged forty. Never had a private disease before. First seen second day after discharge commenced. Had connection on two different occasions; first, six days previous, and second, four days previous, to appearance of discharge.

Glans penis red. Painful irritation, and painful erections. Discharge rapidly became thick, creamy, purulent, and very profuse. Patient was a married man, and also suffered from severe mental depression. Patient was put on alkalies. Alcohol stopped, diet regulated, suspensory bandage ordered as a precaution, and patient instructed to keep quiet. I put him on a salt solution one half per cent., to use as a urethral injection, every two hours at first.

Result.—Discharge was thinner, less profuse, pain on urination almost absent, and patient was so much relieved at improvement that his mental condition was greatly benefited.

As discharge became thinner and less, the injections were used less frequently. At end of seven days from time I saw him injections were reduced to three a day. In the meantime I had put the patient on ol. santali, and he left me cured in twenty-one days from onset.

Case II.—W——. Patient has had gonorrhœa a number of times, and during past year has had at times a gleety discharge.

Five days after coition he noticed discharge from urethra, and within forty-eight hours discharge was profuse, thick, and creamy. Great pain on urination. He commenced to take Lafayette mixture ℥ ij. t.i.d., as he had heard of it.

Three days later he consulted me. There had been no abatement of the symptoms. The inguinal glands on both sides were swollen, tender, and caused him constant pain; in short, he was threatened with gonorrhœal bubo. His stomach had been upset by the Lafayette mixture and alcohol, and he was in great mental distress.

Both Lafayette and alcohol stopped. Patient put on alkalies, and diet regulated. Put on urethral injections every three hours of one-half per cent. salt solution. Discharge became thinner and less profuse. Pain and irritation of the parts markedly reduced, and his mental condition at once improved. Injections were kept up as required, every few hours, and ol. santali given internally. The acute stage was shortened, but the after-treatment was tedious, as he had an old stricture.

So far we have not discussed the direct application of drugs to the urethral mucous membrane in acute gonorrhœa. We have only cleansed the canal, and many surgeons will stop here, satisfied with this very important achievement.

Of course, it would be absurd to apply medication by means of the first injection, as the discharges would prevent the drug coming in direct contact with the mucous membrane. We might just as well attempt to apply remedies to an ulcer on the leg before removing the bandages.

After carrying out the procedure heretofore described we may make use of a medicated injection, such as H_2O_2, in varying strengths, zinc sulpho-carbolate, etc.

These injections I use only in carefully selected cases. If the urethra appears particularly sensitive, or I have doubts as to its tolerance of direct medication, then I rest satisfied with the saline injections alone.

As a rule, during the acute stage of gonorrhœa I should advise the general practitioner to use only the saline solution, leaving the medicated injections in the hands of the specialist.

328 West Fifty-seventh Street.

RECTAL STRICTURE OF PUERPERAL ORIGIN RELIEVED BY LAPAROTOMY.[1]

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It is with considerable trepidation that I offer to this society, the *élite* of the medical profession of this great State of Ohio, in the words of Joseph Cook, "before whom I ought to stand dumb," a new classification of rectal stricture. The case I have to report to-day has been of especial interest to me, and, on looking up the literature, appears to be unique. The consideration of the subject forces me to divide rectal stricture into true and false.

In a true stricture the pathological narrowing is situated in one or more of the structures of the rectum.

By a false stricture of the rectum will be understood a stricture wherein the pathological condition is situated in the peri-rectal tissues, and not in the structures of the rectum. This must not be confounded with obstruction of the rectum caused by a tumor or misplaced organ.

With true stricture and with obstruction of the rectum this paper does not deal; but it is my wish to show that false stricture not only exists, but may be better treated than by the methods recommended in the text-books. The case giving rise to this research is as follows.

Synopsis.—Symptoms of rectal stricture following confinement. Laparotomy. Recovery, with a complete cure of the stricture.

History.—Mrs. M——, aged thirty-six, a large, well-built woman, has always enjoyed good health until her last confinement. She first menstruated at seventeen years; her periods have been regular in time and quantity, and accomplished without difficulty. She has given birth to four children; one ten years since, one six, the third three years ago, and one in April, 1892. All the labors were easy and convalescence normal except the last. The first child died at the age of seventeen months, of diphtheria; the last one lived but twelve days; the other two are healthy. No trace of syphilis or gonorrhœa in husband or wife. On the second day after confinement she complained of severe pain in the lower part of the abdomen, and on the eighth day a rectal tenesmus supervened, there being frequent passages of mucus streaked with blood. This continued some two months; gradually the acute pain and bloody discharge subsided, but she did not regain her former good health.

Her doctor told her that she had "grippe of the bowels." No vaginal examination was made. In July she consulted one of our leading gynecologists, who put her to bed, gave her hot douches, and said to her, "You will have to stay in bed until the snow flies." For two and a half months she had no symptoms directly referable to the rectum, but after the latter part of August

[1] Read at the meeting of the Ohio State Medical Society, June 28, 1893.

the difficulty she experienced in getting her bowels to move gradually increased in severity.

On October 25th, my father first saw the patient; at this time she was having a chill every day or every other day, with a temperature from 100° to 101° F. The next week I saw her; she was then in a deplorable condition, her entire trouble was referred by herself to the difficulty in getting a passage, which she dreaded on account of the pain, which she described as "something terrible, forcing her to bear down as if she were 'going to have a baby.'" A movement was only secured by the repeated administration of large doses of powerful cathartics, and was accompanied by a distressing, burning sensation in the rectum which could not be relieved. The anus, she said, would at these times "draw up toward the inside," while the passage was "very small, like a baby's." Her other symptoms were accompanied by a persistent anorexia and daily vomiting, that threatened a speedy termination unless relief should be obtained.

A rectal examination revealed, at three and a half inches, a firm annular stricture, so small and resisting that the examining finger could not be made to engage in it. On making a vaginal examination the cervix was free, that is, as free as is possible with a fixed fundus. The fundus was retroflected, drawn to the left, and firmly fixed to the sacrum. Passing from the fundus laterally could be felt on either side a firm band, not sensitive to pressure, shorter and thicker on the left than on the right side. These bands occupied the site of the superior border of the broad ligament, passing off from either side of the uterus at its fundus, but did not extend throughout the width of the broad ligaments down to the cervix. Ovaries and tubes not to be differentiated.

On November 15th, assisted by the house staff at Charity Hospital, in the presence of Drs. W. J. Scott, Weber, and Lucas, I opened the abdomen by a four-inch incision, with the expectation of at least partially relieving the rectum by freeing the uterus, lifting it up, and doing a ventro-fixation. The uterus was retroflected, drawn to the left, and fixed to the sacrum; so firm were the adhesions, and to such an extent had the cicatricial contraction taken place, that the peritoneum of the fundus had a white, glistening, bloodless appearance. The left tube and ovary were not found, but their site was occupied by a mass of new connective tissue. The rectum skirted along the promontory of the sacrum just above the fundus of the uterus, and dipped down into the pelvis to the right of that organ, instead of the left where it is usually found. Commencing above to free the rectum, the vermiform appendix was found adherent to its anterior surface; this was freed, and being normal, was put over into its proper place. The tube and ovary, containing a small cyst which ruptured during the manipulations, were next lifted from the rectum. Very little ovarian tissue was left, the most of it being substituted by cicatricial tissue. The right broad and the round ligaments were found to be much shortened, these, reinforced by the inflammatory new connective tissue between the rectum and broad ligament, formed a firm stricture of the rectum. The broad ligament, including the round ligament, was cut between forceps well down into "Douglas's pouch," and the anterior and posterior layer of peritoneum stitched together on either side of the cut. After stopping the oozing, and flushing the abdomen, the external incision was closed with silkworm gut. A rectal examination showed that the stricture had been immediately relieved.

I have prepared some diagrams to illustrate the condition at the time of operation.

Fig. 1, after Savage, I have modified to represent a transverse section of the body, showing the normal position of the fundus uteri, situated at about the centre of the pelvic cavity, with the broad ligament and the structures contained therein: the ovary, tube, and round ligament passing out laterally to the pelvic walls.

Fig. 2 represents a transverse section of the body, showing the site of the inflammatory exudate and adhesions. This chart is largely hypothetical; as there was no vaginal examination for several months after the confinement, there is no way of knowing how much of an exudate there was during the earlier stages.

Fig. 3 represents a transverse section of the body,

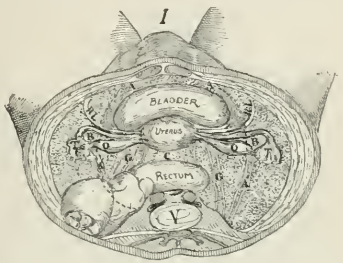

Fig. 1.—Transverse Section of the Body, Showing Normal Position of Fundus Uteri: *A*, hypogastric artery; A^1, spermatic vessel and nerve; *B*, broad ligament; *C*, sacro-uterine ligament; *G*, ureter; *O*, ovary; *T*, tube; *RL*, round ligament; *V*, last lumbar vertebra; dotted line indicates the true pelvis. (Modified from Savage.)

showing the relation of the pelvic viscera, in the case under discussion, at the time of operation. The rectum passes down into the pelvis on the right side, the uterus is drawn to the left, and fixed. To the left of the uterus is the short band of connective tissue enclosing the remains of the ovary, tube, and broad ligament. To the right of the uterus the broad ligament, passing from the

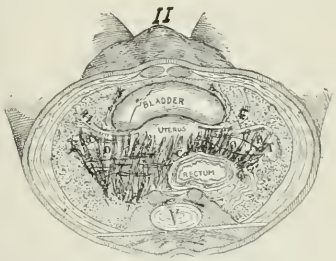

Fig. 2 (hypothetical).—Transverse Section of the Body, Showing the Site of the Inflammatory Exudate. (References as in Fig. 1.)

fixed uterus on the one hand to the pelvic wall on the other, shortened and reinforced by the inflammatory new connective tissue, forms a firm band, pressing down upon the rectum, and preventing that organ from performing its natural functions. *V* represents the site of the operation.

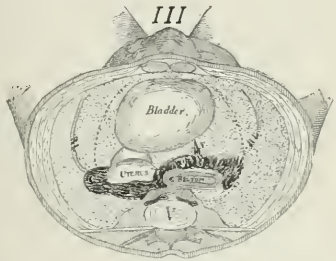

Fig. 3.—Transverse Section of the Body, Showing the Relations of the Pelvic viscera in the Case of Rectal Stricture of Mrs. M.: *RL*, round ligament; *C*, cicatricial mass including the left tube and ovary; *O*, right ovary, adherent to rectum, covered by new connective tissue; *V*, site of operation.

Convalescence was uneventful. One month after the operation I have in my notes the following: "Feels perfectly well. Cannot get enough to eat, but suffers no discomfort from eating. As soon as her head touches the pillow she is asleep; first restful sleep since last April. Bowels move every day, and has taken cathartic but once

since coming home." To-day, six months after the operation, she says her health is better than ever before. Surely not the ordinary result of an operation for stricture of the rectum by the old methods!

The literature of the subject contains numerous cases of obstruction of the intestinal tract by bands of various kinds: some of them extending to the true pelvis, or even located in it; but the following three cases only may be fairly called false stricture of the rectum, although not so reported.

In 1854–55,[1] Mr. T. J. Ashton exhibited to the London Pathological Society a specimen showing "Stricture of the rectum, from a deposit of fibrous tissue external to its coats."

"F——, aged fifty-four, admitted to hospital with a history of disease of the rectum of twenty years' standing; examination showed a contraction of the bowel to exist at three inches from the anus, surrounded by a dense mass of morbid structure. On post-mortem examination, the intestines were found greatly distended. No peritoneal inflammation existed. The rectum was contracted at the part already mentioned, and was surrounded by a large mass, having the appearance of fat, and very dense; but by the aid of the microscope, as well as subjecting the specimen to the action of ether, it was found to be composed of fibrous tissue alone."

January 11, 1893,[2] Dr. Biggs exhibited to the New York Pathological Society a specimen of which he says: "It was removed from a woman, thirty-five years of age. There were extensive adhesions from the upper border of the uterus directly backward to the rectum. It was interesting to note that the origin of the trouble was tubal. A firm band of fibrous tissue, nearly half an inch thick, surrounded the middle portion of the rectum, causing so much obstruction that it was with difficulty that the little finger could be forced through the opening. Above this point there was very marked dilatation of the gut, and in the sigmoid flexure and ascending colon there was very extensive diphtheritic inflammation."

Dr. Edwards[3] also reports a case found at post-mortem, in which "The cause of all the trouble was a cartilaginous band, about one and a half or two inches wide, which had gradually occluded the gut completely from seven and a half to nine inches above the anus."

It is probable that most false strictures are due to an inflammatory process starting without the rectum. Dr. Biggs's case was apparently of that character, and my own was undoubtedly the result of such an inflammation.

That the latter was of puerperal origin there can be no doubt, as the history is clear on this point. None of the older authors mention the puerperal condition as an etiological factor of stricture of the rectum. Whitehead, even as late as 1888, in a lengthy address on stricture of the rectum, says: "I have no knowledge whatever of child-bearing as a cause of rectal stricture." The modern authors are, however, beginning to recognize it as an etiological factor. Wyeth's and Moullin's Surgeries contain the simple assertion that the "accidents of parturition not infrequently tend to stricture."

The differential diagnosis between true and false stricture is most difficult, since there is no pathognomonic sign or symptom. The clinical history of both are alike; a rectal examination reveals apparently the same condition. But if on vaginal examination, or otherwise, a pelvic band can be felt, especially if the uterus is fixed posteriorly, the stricture may be suspected as a false stricture. May it not be that quite a proportion of those found in women are false strictures?

Let us review for a moment the methods of treatment advocated for stricture of the rectum. They are, combined with constitutional treatment, the bougie, linear proctotomy, and colotomy.

The use of the bougie is not without danger, and even after the stricture has been fully dilated, the instrument must be passed at intervals to prevent its recontraction. Surely not a cure!

Of linear proctotomy "The American Text-book of Surgery" says: "It cannot be practised when the stricture is high up or of great extent; here we must perform colotomy to save the patient's life." The four cases forming the basis of this paper were from three to seven and a half inches from the anus, and it is not improbable that most false strictures are high up, situated above the floor of "Douglas's pouch." Any operation through the rectum must not only cut through sound tissues, exposing them to the dangers of infection, but, if the operation is thorough enough to divide the constricting band, must also open the peritoneal cavity, which is the danger to be feared in linear proctotomy.

Colotomy is rightly a last resort; and, if a case judged to be a false stricture proves, on opening the abdomen, not to be directly amenable to surgical treatment, a colotomy can be performed, and the median abdominal incision closed, without materially adding to the dangers of the colotomy.

I have endeavored to show that there are cases of stricture where the pathological condition is situated outside of the rectum. These I have denominated false stricture in contradistinction to true stricture.

False stricture is usually the result of an inflammation starting without the rectum.

The puerperal condition is an important etiological factor.

Presents the same clinical picture as the true stricture.

Situated above the floor of "Douglas's pouch."

Theoretically, false stricture can be best treated by laparotomy.

[1] Transactions of the Pathological Society of London, 1854-55.
[2] New York MEDICAL RECORD, February 4, 1893.
[3] Ibid., April 21, 1888.

OXYGEN IN CHOLERA CURSORILY CONSIDERED.

By R. HARCOURT, M.D.,

ASSISTANT SURGEON TO THE DEMILT DISPENSARY, NEW YORK, AND DISTRICT PHYSICIAN TO THE NEW YORK LYING-IN-ASYLUM, ETC.

THE enunciation made by Mayo about two hundred years ago, "that there is something in the air absolutely necessary to life which is conveyed into the blood," excepting that the "something" was not named, expresses what is now regarded as one of the great objects of respiration.

The "something" already referred to is, of course, oxygen. Discovered almost simultaneously in 1774 by Scheele and Priestley, published under the names empyreal and dephlogisticated air, it was left for Lavoisier to give it the present designation of oxygen. Raoul Pictet, of Geneva, first reduced it to a liquid state, by cold and intense pressure; as a gas it is colorless, tasteless, heavier than atmospheric air, and the sustaining principle of animal life and all ordinary phenomena of combustion.

Man's function is to fill a certain niche in the gallery of the world; and be this ever so humble, he who fills it in a thorough and conscientious manner will best benefit himself and the world; to do this activity is necessary, bearing in mind, although the term may sound paradoxical, there is such a condition as active quiescence. Activity means health, to be healthy it is essential that we consume, with other things, a proper and pure supply of oxygen.

To a scientific investigator the modern beliefs expressed regarding oxygen in its varied aspects, are worthy of some special concentration of mental activity. So much has been written and so many views have been advanced regarding this gas, that a paper at this time must necessarily be to some extent a recapitulation of facts already stated; but to a real scientist, using this term in contradistinction to the term "scientific quack," a recapitulation on this subject will no doubt be somewhat interesting. Wild theories and ludicrous statements, the authors of which being well-meaning and often remarkably clever men, will have to be taken *cum grano salis*, swallowed in the proper manner (so to speak), when, if acted upon by the mental gastric juice (provided it be of the proper

quantity and quality), will be assimilated at their true worth, going to provide nutriment for the structure of the intellect; by nutriment is meant knowledge of indisputable and incontrovertible facts. It is much better for nothing to be written than to have an accumulation of graphic mistakes.

Speaking of warm-blooded animals, the statement may be made that without oxygen there is no life, and that said animals consume in a certain way or manner a graded quantity of the gas. It is quite rational to accept this statement, that this is increased or decreased during abnormal physical conditions which may be present. When writing of oxygen as a remedy, prophylactic or otherwise, it is of course of primary importance to consider it relatively with man.

Atmospheric air in passing through the lungs increases in temperature, due to contact with tissues, and also gains watery vapor, ammonia, and a small quantity of organic matter. The volume of oxygen consumed is about five per cent. of this entire volume of air. The quantity of CO_2 exhaled is four per cent. of the entire volume of air, showing a certain quantity of oxygen lost in the lungs, a part of which is found to participate in production of animal heat, and some uniting with hydrogen to form water.

Oxygen in Cholera.—The various ways and means by which we are instructed to treat cholera are multiform: Simple and difficult, practical and impracticable, partly successful and unsuccessful; but the fact that good results are, comparatively speaking, not often attained, indicates that we ought and do appreciate any suggestion which will tend to alleviate the suffering and misery of the patient, and to attain success in treatment. The wide divergence of opinion on both the subjects of etiology and the treatment is due to a great extent, it must be remembered, to the difference in the character of various epidemics, in individual cases, and in the climatological situation and sanitary aspects co-existing.

It would be well to remember that there is no direct relation between the degree of collapse and amount of discharge: indeed, in the most fatal cases the discharges are slight or absent. The occurrence of collapse is the point against which we are to lead our remedial forces: in regard to the causes of the symptoms of which the conclusion is reached by a very able observer, that they are produced by obstruction of the circulatory fluid in its passage through the lungs. Post-mortem examinations show that in cases in which death occurred during the stage of collapse, the right aorta, the pulmonary artery, and the great systemic veins were obstructed with blood, while the left aorta was found to be nearly empty. Blood containing the virus excites the arterioles to contract, the supply of oxygen is diminished in proportion to the defective current of arterial blood, the circulating blood and the tissue both become deoxygenated, the elimination of CO_2 is diminished, and there is almost complete suppression of bile and urine. That these symptoms are due to defective oxygenation is proved by the fact that, in the case of a nursing mother becoming infected with the disease and falling into collapse, the secretion of milk continues unchecked, the breasts even becoming painfully distended. The chief ingredients of the milk, viz., sugar, fat, curd, and water, unlike bile and urine, can be obtained from deoxygenated blood.

When it is considered that the soft tissues of the body contain four-fifths of all the water in the organism, it will be readily seen that the extraction of watery constituents from the blood will not cause it to become thickened, as it can draw on the reservoir of water in the tissues, thus maintaining liquidity by compensation, the tissues diminishing in proportion to amount of water given up, which process takes place with great rapidity. If the body can be kept warm by any means, the painful cramps of the muscles will be relieved, the pulmonary arterial spasms will relax by heat of returning venous blood, and the pulse will be of a good character. The statement that Dr. Cuneo saved six patients affected with cholera by forcing oxygen into their lungs, shapes out a line of thought regarding this remedy as herein applied. As before stated, in this disease the symptoms of collapse are produced by obstruction of pulmonary circulation, which condition will bring about deficient oxygenation of both blood and tissues. Now, as it is of primary importance that we maintain normal animal heat, for which the necessity of oxidation of the tissues is well known (by oxidation is meant the application of the chemical law, that is, when a body is burning it enters into union with the oxygen), all tissues, as long as they retain their absolute integrity of composition, can appropriate oxygen and exhale CO_2. The blood being the only channel by which the tissues can be supplied with the gas, every means possible should be made use of to cause it to be taken up by the blood. The physiological law which says that blood will only appropriate a certain quantity of oxygen, has to be carefully considered, but it will be remembered that in cholera an abnormal condition is present, namely, obstruction of the pulmonary circulation, in which condition it is said one lung often does duty for the two, by way of the blood it contains taking up a nearly double quantity of oxygen, clearly proving that in cholera the judicious use of oxygen would be one the best resources which can be commanded; first, constitutionally as a tonic, and secondly, by assisting nature in her conservatism by keeping up normal oxidation until she has thrust out the poison by way of frequent diarrhœic discharges.

Probably the diseases in which oxygen has been of greatest value are pneumonitis and septicæmia, and there is not wanting literature testifying to the remarkable results obtained from the use of the gas in these abnormal conditions.

Clinical Department.

METHYLENE BLUE AS A REMEDY AGAINST DIPHTHERIA.

By A. ROSE, M.D.,

NEW YORK.

DURING the last few weeks I have been employing, locally as well as internally, methylene blue in different forms of diphtheria, and also in non-diphtheritic ulcerations of the throat, invariably with surprisingly good results. I was induced to apply this drug, with which I had had, like many others, quite extensive experience in the treatment of malaria, by an article of Dr. A. Kasem-Beck, which appeared in the *Centralblatt für klinische Medicin*, June 24, 1893, entitled: "On the Treatment of Malaria by means of Methylene Blue and the Local Application of this Drug in Diphtheria."

Dr. Kasem-Beck reports his good results in different forms of diphtheria, most of them associated with swelling of the submaxillary lymphatic glands. He applied an aqueous solution (1–9) two or three times daily to the ulcerated membranes.

Dr. Beyer had already reported in 1891 (*Allgemeine Centralzeitung*) on fifty cases of diphtheria pharyngis successfully treated by internal administration of methylene blue mixed with powdered sugar.

On July 1st I was called to attend upon a boy, ten years of age, with diphtheria of nose and throat, high fever, considerable swelling of submaxillary lymphatic glands. The treatment consisted principally in administration of solution of bichloride of mercury internally, hydrate of chloral to the throat, and lime-water to the naso-pharyngeal space, locally. It was of no avail. The child died. The disease had probably been contracted in the next-door house, where a child shortly before had died of diphtheria. Two other children in my patient's family also took sick with diphtheria on the same day my first patient died. Both these new cases commenced with extensive ulceration of the throat: in one of them the nasal membrane was also affected. Both soon had

swelling of the submaxillary lymphatic glands and high fever.

On the very day these new cases happened I had received by mail the above-mentioned article of Dr. Kasem-Beck, and I was so favorably impressed with it that I at once resorted to the methylene treatment. I applied the solution to the affected membrane of the throat every two hours; to the nose, in the one case, three times a day. The result was most gratifying. Both made a quick recovery.

I attended since a case of diphtheria of the nose, throat, and larynx, with swelling of the submaxillary lymphatic glands and high fever, in a child two years of age. In this case I gave methylene blue locally as well as internally, the latter form of administration in the shape of lozenges sweetened with saccharin, containing one centigramme of the drug. The result was excellent. Recovery within one week.

In simple non-diphtheritic ulceration of the throat, patients would, after one or two applications of the solution, express themselves with great delight as being cured.

In all cases of exclusively topical treatment the urine became blue. I agree with Dr. Kasem-Beck, who thinks that the methylene blue entering the general circulation has an influence on the course of the diphtheria.

When I asked Messrs. Eimer & Amend to suggest to me a convenient form to give the very disagreeable methylene blue internally to children, they informed me that they had been for some time making methylene lozenges for a physician residing on Staten Island, who ordered them in cases of diphtheria to be dissolved in the mouth, thus securing at the same time topical and internal application. The lozenges which were made for my patients dissolved readily in the mouth, and were, on account of being sweetened with saccharin, not unpleasant to take.

Judging from theoretical reasons, I shall try these methylen lozenges in cases of whooping-cough, when opportunity shall present itself.

It has happened to me that methylene violet instead of methylene blue had been dispensed to my patients. I learn also that similar mistakes have occurred elsewhere.

215 Second Avenue, August 6, 1893.

DEAFNESS FROM MUMPS.

By HAL FOSTER, A.B., M.D.,

KANSAS CITY, MO.

LARYNGOLOGIST TO ALL SAINTS' AND MISSOURI PACIFIC HOSPITALS.

When I was a medical student in the office of Dr. McLaury, of New York City, I remember his saying to a lady patient, after she had asked him if there was any danger, "Yes, there is danger in all sickness, no matter how slight the ailment." I have seen those remarks confirmed many times. The case I wish to report comes under that heading. Mumps is considered both by physicians and patients as perfectly harmless. Fortunately, in the great majority of cases this is the rule.

Occasionally dangerous and disastrous sequelæ are met with. The history of my case is one of more than usual interest.

Its comparatively rare occurrence, the difficulty of diagnosis, and the sudden speedy termination entitle it to be noticed. On the morning of May 5, 1893, Mr. and Mrs. H. G. F—— were sent to me from Council Grove, requesting me to examine their son. The patient was a bright-looking boy of four years. There was no specific or tubercular disease in the family. The parents were well and had always been so. The other children in the family were well and strong. This boy had escaped all the infantile diseases, such as scarlet fever, etc. In fact, his mother informed me he had never been sick a day in his life. Two weeks ago he was sitting in his father's back yard, on the last door-step (which was only eight inches from the ground) in company with several children. Suddenly, without warning, he fell, striking the head against the board sidewalk, which dazed him for a few moments only.

His father came home several hours afterward; his son met him at the front gate and told him all about the fall. The boy retired at the usual hour that night, and no unusual symptoms were noticed until his mother attempted to dress him the next morning. He was then unable to stand, was dizzy, vomited, and told his mother that bugs were singing in his ears.

She called the family physician, who examined him and advised her to keep the patient in bed that day, without any medicine. On the morning of the following day the boy appeared to be perfectly well, with the exception of being absolutely deaf. He would look at his mother and say, "Mother, why don't you talk to me?" She talked to him all the time with no results. He had been in this condition for two weeks when I saw him. I examined him very carefully and found him to be in a splendid condition. His throat and nose were normal, he placed his hand to his ear and said, "Hear that noise." Immense quantities of dry wax were washed out of each ear.

The drums could now be seen, and with the exception of a little redness they were normal. At this time I thought that the trouble was due to the wax, and was in hopes that he would be able to hear by the next day's treatment. On entering my consultation-room the next morning the father said, "Doctor, this boy is still as deaf as a post." The tuning-fork and watch tests were now used with negative results. To all of my tests he gave no evidence of hearing anything.

Thinking that a neurologist could locate the trouble, I called my friend, Dr. John Punton, who examined the patient, and said that the nervous system was not injured in any way. I then asked Dr. J. H. Thompson to examine the boy. He pronounced the ear-drums in good condition. The mother said at this moment, "Doctor, I forgot to tell you my boy had the mumps when he fell; both sides were involved so very slightly that he was never in bed." The diagnosis of deafness from mumps was then at once made. He was now placed on large doses of iodide of potash in liquid pepsin, mercury by inunction, and pilocarpine in small doses by subcutaneous injection. The ears were inflated, and the above treatment continued for two weeks.

The pilocarpine had to be now discontinued and fluid extract of jaborandi substituted; with this exception the same treatment was continued for a month. The boy's general health seemed to improve greatly, but he remained as deaf as ever. I told the father I could do nothing for the boy, and explained to him the grave condition the ears were in, and advised sending his son to the school in Olathe for deaf children.

Pomroy reports several cases of this kind, and says the peculiar poison which causes the disease is very often the source of complete deafness. Roosa says the deafness comes on suddenly, is usually complete, no appearances of disease can be detected in any part of the ear. Toynbee reports some cases, and says he was unable to detect anything abnormal about the tympanic cavity. Dr. Knapp also reports several cases.

Dr. J. H. Thompson informs me that he has seen several cases, without any trace of disease of the middle or external ear. Schwartze (page 439) reports a number of cases. Dr. Burnett [1] says, "A peculiar metastasis may occur by which the labyrinth becomes affected and total deafness results."

The above-named seem to agree as to the cause, and the grave prognosis in these cases. The hearing is seldom if ever restored. As far as I have been able to find, treatment has not cured or benefited a single case. In my case the metastasis took place, and the labyrinth became affected, while the boy was sitting on the steps, causing him to fall; at least this is my opinion.

[1] System of Ear and Throat Diseases, p. 528.

PYREXIA IN ACUTE ANÆMIA.

By A. REICH, M.D.,
NEW YORK.

Mrs. S——, aged forty, IV.-para, was confined June 14, 1893. Presentation, vertex, position, L. O. P.; the first and second stages of labor lasted eight hours; the occiput did not rotate and was born in that position. The third stage did not come on for twenty-five minutes. I wanted to resort to Credé's method; to my surprise the uterus was flabby, distended; a large amount of blood covered the bed and she was still flooding slowly. Ergot by the mouth and manipulation of the uterus through the abdominal walls soon caused it to contract. The temperature now, at 2 A.M., was 97° F.; pulse very soft. At 10 A.M., temperature, 100° F.; in the evening, 102° F., and it fluctuated between 100° and 102½° F. for five days, but became normal at the end of the week. During this time the lochial discharge was normal and the patient felt comfortable.

Progress of Medical Science.

The Pathology of Laziness. — Many persons are unjustly compelled to bear the reproach of laziness, when their indisposition to exertion really has a physical basis, and depends upon some grave disturbance of nutrition. Such cases deserve our sympathy, instead of the contempt which is unsparingly meted out to them by their more robust associates. Women, whose instincts are often remarkably correct, understand this, and when a child is unusually quiet and prefers to sit still, instead of joining its companions in play, the mother's fears are aroused; she thinks at once that something is wrong, and that the child is going to be sick, or is actually suffering from some obscure internal disorder, possibly hip-joint or spinal disease. This explanation may apply in adults as well as in children. Some years ago, a clergyman, who had been very active in church work, was noticed to gradually give up one duty after another, and to show marked disinclination to perform any work requiring much exertion of body or mind. He was generally thought to be losing his interest and getting indolent. Indeed, he feared himself that this was the case, and it gave him much mental distress and spiritual disquietude. He afterward came under the observation of a physician, who found that he was a sufferer from Bright's disease, from which he subsequently died. He was especially regretted by those who had hastily and ignorantly condemned him for what was assumed to be a fault, but which, in reality, was due to grave disturbance of nutrition from the approaches of an insidious organic disease. Victims of chronic malarial poisoning afford typical illustrations of laziness, although clearly suffering with bodily disorder. Who can estimate the amount of physical disability and apparent indolence which is directly due to dyspepsia and chronic indigestion? Rheumatism and the muscular pains of lithæmia, locomotor ataxia, and its nerve-counterfeits, incipient brain disease, and arterial degeneration, are all potent factors in producing indolent habits of body, while phthisis, pernicious anæmia, and neurasthenia have physical weakness as a prominent and early symptom. A dislike for study in a child may often be traced to errors of refraction which are remediable by properly adjusted lenses.

Before pronouncing, therefore, a verdict of moral fault, and condemning those who are conspicuously deficient in energy, and whose powers of work are notably below the average, it would be well to stop and inquire whether they are not laboring under physical disability instead of indolence. In such cases it may be found that better results will be obtained by placing them under the charge of a physician than under an instructor in morals. The decision between the hospital and the work-house is often a difficult one to make for those wrecks of humanity, the physical degenerates, who become tramps because they have a moral and physical aversion to work. In a strictly analogous manner, in higher walks of life, when a physician prescribes physical exercise for patients who obviously require it, he often finds his instructions disobeyed simply because the physical disability of the patient is the real reason for his condition; for if he had the power to follow the prescription he would not need the advice. It appears, indeed, that, in certain instances, laziness may be a conservative effort of nature; and, as a symptom, will be estimated at its proper value by the intelligent physician.—*Food.*

Three Infectious Diseases Incubative at the Same Time.—Dr. J. T. C. Nash writes to the *British Medical Journal* that he recently had under his care a child of three and one-half years, in whom were developed within a week the following infectious diseases in the order named: whooping-cough, chicken-pox, measles. The incubative period of pertussis is stated to be a few days, that of chicken-pox to be variable, and that of measles from seven to ten days, and the point of interest, the writer holds, is that three distinct poisons should flourish in one *corpus vile*, and come to full maturity at one and the same time.

Illumination of the Eyes from Behind.—When an incandescent lamp is introduced into the mouth, for the purpose of ascertaining, by trans-illumination, the condition of the maxillary antra, the pupils are seen as blood-red apertures. Mr. N. Stevenson calls attention to the curious fact that when the light is thus introduced, as it were, by a back door, the pupils do not contract. This observation may prove to possess considerable importance.—*The Medical Press.*

Congenital Absence of Nails.—Dr. Hermann Eichhorst reports in the *Centralblatt für Klinische Medicin* of April 8, 1893, the case of a man, twenty-six years of age, who had no nails on either fingers or toes. The nail-bed and fold were well formed, and the former presented a shiny surface, giving the appearance of a very thin nail. Close examination showed, however, that there was not the slightest trace of a nail, the skin of this part being softer and more delicate even than the surrounding integument. Sensation was also as acute here as on the palmar surface of the fingers. The man's hair and teeth were perfectly normal.

The Bacteria of the Stomach.—In the *Journal of Pathology and Bacteriology*, Dr. Gillespie has published the results of his observations on the micro-organisms which he found in the gastric contents of various patients. Twenty-four varieties of microbes were obtained. They were cultivated on various media to ascertain their products, especially with regard to their acid-producing power, and to estimate the effect of hydrochloric acid added to them. The organisms obtained were largely those of well-known species. The conclusions deduced from the author's studies are as follows: 1. Many organisms can grow in the human stomach. 2. Many of them can be grown from the contents of the stomach even when they are very acid. 3. From many cases in which organic acids are present in the stomach contents, micro-organisms can be grown which produce the same acid on suitable media. 4. Most of the organisms so grown are very resistant to the action of acids. 5. Hydrochloric acid combined with proteids has little inhibitory power on organisms, in comparison with free hydrochloric acid. 6. More micro-organisms can be grown from the gastric contents if plates are used and a medium that will not liquefy at the body temperature, than if plates of gelatine be used. Agar-agar is a good vehicle. Yeasts and mucoids, however, are best grown in bouillon, being isolated afterward on gelatine plates. 7. Micro-organisms, if present in quantity, exercise a deleterious effect on both gastric and pancreatic digestion. 8. Pathogenic organisms, which are usually very markedly affected by hydrochloric acid, may pass through the stomach unharmed if the meal with which they are ingested be large and chiefly

proteid in character; provided also, it may be from some fortuitous circumstances, that the supply of hydrochloric acid be somewhat deficient. Under these circumstances most, if not all, the secreted acid combines with the contained proteids. 9. Many non-pathogenic germs do, as a matter of course, pass through the stomach unharmed or only temporarily inhibited. This accords with Macfadyen's observation that the bacteria of the small intestine are constantly changing in numbers and varieties. 10. A small quantity of the free acid, if combined acid be also present, is sufficient to kill or inhibit organisms which could resist a similar quantity of the free acid alone. 11. Although bacteria are of no aid to peptic digestion, and are a hindrance to the pancreatic ferment if in quantity in the duodenum, they still are of great use in the small intestine, where they control putrefaction. The organisms which most easily pass the stomach are those which give rise by their growth to the fatty acids, as they are most resistant to the action of the acids. Their products in the small intestine are sufficient to keep the contents of that viscus acid, and they thereby prevent or control putrefaction. In the large intestine the secretion is so alkaline that the putrefactive organisms reassert themselves. 12. Increased putrefaction in the intestinal canal may therefore be due, in some cases, either to insufficient mortality among the putrefactive organisms in the stomach, or to too great mortality among the acid-forming bacteria and yeasts. 13. The lactic acid which appears during the first stages of digestion is due to the action of organisms. 14. The lactic, acetic, butyric, and succinic acids found in gastroectasis are due also to organisms which luxuriate in the too stationary contents.

The Medical Profession in France.—In a report presented to the French Senate by Professor Cornil, some interesting statistics are given respecting the number and distribution of medical practitioners in France between 1847 and 1891. In the former year there were in the whole of France 17,400 practitioners, of whom 10,268 were Doctors of Medicine and 7,233 *officiers de santé*. In 1891 the total number of practitioners had fallen to 15,046, the decrease, however, being confined to the class of *officiers de santé;* the number of Doctors of Medicine had risen to 12,553. The proportion of the latter to population varied from 1 to 1,287 in the Seine department to 1 to 7,669 in the Haute-Loire department, the average being 1 to 3,000. The proportion of *officiers de santé* to population, on the other hand, averaged 1 to 17,000.

Functional Diarrhœa.—Dr. Stein points out the importance which has hitherto been attributed to catarrhal and inflammatory conditions of the intestine in producing diarrhœa. (*The British Medical Journal.*) In the stomach many disturbances, formerly supposed to depend upon a catarrhal condition of its mucous membrane, have now been found to rest on a functional basis, which is natural in view of Ewald's remark that the stomach does not really possess a mucous membrane. Analogy has led the author to a similar conclusion regarding the intestine, and he quotes, in support, the experiments and researches of Moreau and Rindfleisch, as also the statement of Cohnheim, that in patients who die of cholera the intestinal mucous membrane is not found to be in an inflammatory condition, but only injected and vascular as during digestion, and that the "rice water" is only abundant normal secretion. Similarly, Cohnheim does not admit that infantile diarrhœa is always accompanied by inflammation; and these and other circumstances lead the author to recognize the frequency of a purely functional diarrhœa, attended by increased peristalsis, diminished absorption, and eventual increase of secretion, but without the presence of pus or blood in the stools. The diagnosis of this condition rests with the history and the exclusion of all circumstances which could lead to a catarrhal or inflammatory process. With regard to treatment, opium only acts by inhibiting peristalsis, and the only drug possessing a direct sedative effect on unstriped muscle is atropine, which paralyzes the nerve-endings and ganglia in the intestinal wall. This the author used successfully, administered as the extract of belladonna three to four times daily, supplemented by creosote or other antiseptic, to obviate the harmful fermentative changes. Great benefit is also derived from the use of galvanic, and especially faradic, currents of 3–10 milliampères, as also from hydro-therapeutic measures and local warmth.

Uræmia Treated by Subcutaneous Injections of Kidney Extract.—Professor Dieulafoy reports a case in which this method was adopted. The patient, a man aged forty-three, presented well-marked uræmic symptoms, with œdema of the lungs and oliguria, which rapidly passed into anuria. Other treatment failing to produce the least effect, a glycerine-saline extract of the cortical portion of the fresh kidneys, first of guinea pigs and then of oxen, was prepared according to the method of Brown-Séquard; and after sterilization by filtering, this liquid was injected hypodermically in doses of 3.5 gm. thrice daily, with temporary benefit. The coma passed off and the kidneys again became active. A relapse occurred, however, after three days of this improved condition, and the patient succumbed.

Akinesia Algera.—Under this term Dr. Möbius describes an affection of the nervous system characterized by extreme pain upon motion, so that the patient is unable to make any movement whatever. The exact pathological condition which is the cause of this symptom is as yet unknown. (*The Lancet.*) It appears only to occur in neurotic individuals, especially those who are in a bad state of health generally and who are unable to fight against the weakness. The pain is sometimes directly associated with motion, but in other instances follows it, and is experienced not only in the parts of the body which have been moved, but also in other parts, and may finally lead to almost complete loss of motive power, so that the patient is practically paralyzed. In addition to this pain, which is the most prominent symptom, other phenomena characteristic of neurasthenia may develop, but hysterical outbursts have not been observed. Möbius considers that this disturbance may be attributed to inherited degeneration of the nervous system; that, as a rule, it follows upon mental strain in patients prone to neurasthenia; and that it must be regarded as a psychical affection. The condition must, however, be considered as more allied to hysteria than to hypochondriasis.

Tolypyrin.—Dr. Guttmann has recorded the results of some trials of tolypyrin, a new pyrazol derivative. The new drug is found to resemble antipyrin closely in its action. Its chemical constitution may be described as antipyrin in which one atom of hydrogen of the phenyl group has been replaced by the methyl group CH_3. Tolypyrin forms colorless crystals, melting at 136° to 137° C. It has a bitter taste, is soluble in ten parts of water, slightly in alcohol, and is almost insoluble in ether. Its effect on the temperature in pyrexia was very marked; one drachm given in hourly fifteen-grain doses lowered the temperature at least 1.5° C., generally 2° C., sometimes as much as 3.5° C. The fall of temperature began in the first hour and reached its maximum in five to six hours, the curve being steep. If the administration was commenced at midday, so as to take advantage of the usual remission after midnight, the temperature remained depressed to a notable extent for from twelve to eighteen hours. The fall in temperature was accompanied by sweating, and there was a corresponding fall in the pulse-rate. Its influence on the temperature of pyrexia appeared to be a little greater than that of antipyrin. The observations on the apyretic action of the new drug were made on 6 cases of typhoid fever, 5 cases of pneumonia, 2 cases of facial erysipelas, scarlatina, and phthisis, and 1 case of septicæmia, otitis media, and gangrene of the scrotum with high fever. In acute rheumatism tolypyrin

produced a similar effect to that observed after antipyrin, one drachm producing an amelioration in the joint swellings and in the pain, lasting from twenty-four to forty-eight hours. In its anodyne properties also it was found to resemble antipyrin; in 10 cases of headache it produced complete relief in 6, no distinct relief in 4; of these 4, antipyrin produced relief in 2. In one case of recent sciatica it had a good effect in relieving pain. Tolypyrin is excreted in the urine.—*Berliner klinische Wochenschrift.*

Changes of Type in Epidemic Diseases.—This was the subject of the Milroy Lectures, delivered in London by Dr. Whitelegge. He summarizes by saying that epidemic prevalence may be brought about either by increased potency of the disease itself or by increased mechanical facilities for diffusion. Epidemics of the latter class, including water epidemics, milk epidemics, and, as a rule, seasonal prevalence, are attended with lowered case mortality, because the conditions under which they occur imply a lessened average susceptibility, therefore a less severe average attack. Underlying all great epidemics there is a change of epidemic type, a change in the quality of the disease itself. There is evidence of a like change on a smaller scale in most, if not all, epidemic diseases, the intensity rising and falling at intervals which are not necessarily uniform for the same disease, and are very different in different diseases. Whether on the larger or smaller scale, the intensification is marked by greater severity of attack, greater power of overcoming comparative insusceptibility, and greater power of epidemic diffusion. While some diseases are capable of rapid or even abrupt changes in intensity, others are not; and this distinction serves to mark off broadly two principal groups: those which are mobile and those which are comparatively constant in type. The first group—that of diseases which are capable of most rapid change in type—includes those which are most nearly allied to saprophytic life, most dependent upon filth conditions; most able to infect soil, water, milk, and lower animals; most liable to relapses, and least protective. Diseases of this class may be highly modified, and some of them may assume and maintain a form so slight that their true character is unrecognized. Under favorable conditions, their intensity may slowly or suddenly increase, giving rise to epidemics of severer type. Among diseases of this class, an epidemic normally begins and ends with the milder forms, the more severe attacks occurring at the time of greatest prevalence. The severity and prevalence rise and fall together. In the second group, among diseases of more fixed character, extreme modification of epidemic type does not occur: but individual attacks may be extremely mild, owing to high resistance. Among such diseases there is evidence of a rise and fall of intensity if the epidemic course be traced for a term of years, perhaps covering several minor epidemics. In these brief outbursts of diseases of more constant type there is little, if any, change of intensity comparable to that of the mobile class; the prevalence being determined and controlled mainly by external conditions, but the type being that of the prevailing phase of a broad cycle.—*The Boston Medical and Surgical Journal.*

An Outbreak of the Gastro-intestinal Form of Influenza.—Dr. Thresh has presented a report on the recent outbreak of diarrhœal disease at Ford End, in the neighborhood of Great Waltham, in England. By personal examination he ascertained that the outbreak, which began in December and gradually increased in the number of cases affected until the middle of January, was not due to water or food, and that it had exclusively affected households suffering from influenza. (*The British Medical Journal.*) Occasionally severe diarrhœa, the most characteristic feature of which was the offensive character of the stools, had come on without any premonitory symptoms, but in the majority of cases the patients had been ailing for some days before the bowels became relaxed. These premonitory symptoms varied considerably, but they closely corresponded with those from which other members of the family had suffered; who, nevertheless, had no diarrhœa. In fact, the diarrhœa seemed generally to indicate the crisis occurring in the course of an attack of influenza, since, after the bowels had acted freely, recovery was rapid. Vomiting occurred in but few cases. It was noticed as a curious circumstance that the families affected had suffered from two, and in a few cases three, previous attacks of influenza, thus showing, apparently, a marked predisposition to the disease. Dr. Parsons has pointed out that the gastro-intestinal form of influenza is "especially noticed in children, and is marked by vomiting, diarrhœa, and other symptoms of gastro-intestinal disturbance." The peculiarity in this localized epidemic may be attributed to the fact that the proportion of such cases to those of the "nervous" and "catarrhal" types is much larger than is usually observed, possibly larger than has previously been recorded. This disproportion may be, perhaps, accounted for by the fact that the small community affected by the epidemic contained as many children as adults.

Simple and Pernicious Anæmia.—Writers of textbooks on medicine have always had a great deal of trouble in classifying the different varieties of anæmia. Some have adopted the plan of grouping them as primary (or essential) and secondary. This, of course, is open to the objection that a form of anæmia of which we know the determining cause becomes secondary, while anæmia of obscure origin is described as primary. Theoretically, they may be classified according as they are due to deficient production, or to exaggerated destruction of red corpuscles, but clinically, it is often impossible to say which is which. We are therefore constrained for the present to revert to the old-fashioned division into "simple" and "pernicious." (*The Medical Times.*) The latter has various aliases. It is termed by one "pernicious," by another "essential" or "idiopathic," and by a third "progressive" anæmia. It will suffice for our purpose to point out that this graver variety of anæmia is associated, like simple anæmia, though in a more marked degree, with a striking diminution in the number of red corpuscles. In simple anæmia, however, the diminution in number is accompanied by a more than corresponding fall in the proportion of hæmoglobin, the corpuscles losing in value as well as in number. In pernicious anæmia, on the other hand, the proportion of hæmoglobin is, so to speak, in excess—not of course in comparison with normal blood, but in comparison with blood impoverished to the same extent in respect of the corpuscular elements. The destruction of red corpuscles which is so characteristic of pernicious anæmia, takes place in the portal circulation, and the free hæmoglobin stains and deteriorates the liver, giving rise to a yellow coloration of the skin and a dark-yellow color of the urine of these patients, the latter being due to the presence of an unduly large amount of urobilin, a modified blood-pigment. So constant is this excretion of urobilin, and so easy is it of recognition, that it may fairly be accepted as the salient feature of the disease. In fact, whenever the practitioner comes across a case of well-marked anæmia, associated with a temperature above normal, a yellow complexion and a dark urine giving the reaction for urobilin, he should suspect pernicious anæmia and modify his prognosis and treatment accordingly. Iron is absolutely useless in the treatment of this affection, and even arsenic, though it seems to exert a specific action in some cases, cannot be relied upon. The first thing to do is to clear the liver by small doses of calomel, and then to combat the irregular fermentation going on in the gastro-intestinal tract by the administration of β-naphthol or salol. This treatment is based on the assumption that the destruction of the red corpuscles is the result of the action of certain organic ferments absorbed from the stomach, it having been ascertained experimentally that the condition can be artificially induced by the injection of such ferments.

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THE PAN-AMERICAN MEDICAL CONGRESS.

THIS long-projected meeting of the medical practitioners of the two Americas, which is to begin in Washington a week from next Tuesday, September 5th, and continue in session during that and the three succeeding days, promises to fulfil the expectations of those who have labored to make it a success. The list of titles of papers to be read in the different sections is a long one, and its perusal will set at rest any fears which the friends of the Congress may have entertained as to its place among the scientific gatherings of the world. The total number of papers in the twenty sections is 661, and doubtless others will be offered at the last moment which may be read if time permits. The largest number of papers in any section (52) is in that on Gynecology and Abdominal Surgery. We notice that the Section on Orthopedics has been dropped, the papers on orthopedic subjects being listed in the Section on General Surgery. It is not from the mere number of papers, however, that we are led to look forward to an interesting meeting, but the subjects chosen are such as to warrant a belief that the scientific success of the Congress is assured. Naturally, a majority of the papers to be read are by physicians of the United States, yet a larger number than was anticipated have been offered by adherents to the Congress from the Spanish-American countries, Brazil, and the West Indies.

The Governors of nearly all the States of the Union have appointed delegates to represent the sanitary interests of their respective States. These latter number nearly three hundred in the aggregate. It will be seen from this that special interest is centring in the sections on Marine Hygiene and Quarantine, and on Hygiene, Climatology, and Demography, in charge respectively of Dr. Wyman of the Marine Hospital Service, and Medical Director A. L. Gihon of the U. S. Navy. The imminence of cholera in the East, and the perennial prevalence of yellow fever in the South, give particular importance to the proceedings of these sections at this time. From the programme published in another column it will be seen that the papers and discussions to be presented before these sections are mostly on subjects of unusual interest and international importance.

Apart from the question of papers, the Congress promises to be a success as regards the number of those in attendance. All of the countries, practically, have appointed official delegates in response to the invitation from the President of the United States, and a large number of the colonies, and a great many municipalities have likewise appointed delegates, as have also the medical organizations throughout Latin-America. Owing to the hard times, it is possible that the attendance from our own country may not be as large as it would otherwise have been; yet it is possible, on the other hand, that a number who could not spare the time, or had not the energy to devote to two large medical assemblages in one month, may now attend the Pan-American, since the Rome Congress has been postponed. We trust, indeed, that all who can will go to Washington to do honor by their presence to our guests from the sister republics and colonies of this continent, and also to aid by their contributions in making the Congress as successful financially as it is sure to be scientifically.

DIAGNOSIS OF HEREDITARY SYPHILIS.

FOURNIER insists that the diagnosis of hereditary syphilis must be based almost exclusively upon ocular evidence. Beyond a family history of infantile polymortality, verbal information has but little significance. To Hutchinson's triad of symptoms—notched teeth, interstitial keratitis, and inflammation of the middle ear—must be added three other important evidences of specific trouble that do not always receive sufficient emphasis. First, the general appearance of the patient; next, the cicatrices upon the skin and mucous membranes; and, third, the deformities of the bones. Persistent childhood best describes the bodily condition, owing to the low stature and slight frame. The scars upon the skin and mucous membranes present four definite characteristics: their size, configuration, area, and locality. They are very small, almost minute; in form like a rounded bow, an arcade, or a serpentine curve. They are arranged in groups joined at the side; and are found at the commissure of the lips, about the circumference of the nose, in the throat, and particularly upon the buttocks and in the lumbar region. In the bony skeleton are the most strongly marked, the most profound and persistent lesions, easily discovered in the skull, in the face, in the bones of the extremities, most notably in the tibia. The forehead bulges outward, or may be keel-shaped, or may present symmetrical protuberances. There is often marked increase in the transverse diameter of the head, and the lateral halves of the cranium often show marked asymmetry. The characteristic deformity of the face is that of the nose. In the first type the upper part of the nose seems to have fallen in, and the tip turns up; in the second, the lower portion of the nose is shortened, and appears in some way to be absorbed into the upper part. There are also less typical nasal deformities, as when the nose is flattened at the base or badly formed, the result of simple dystrophy, and not of necrosis. Protuberances and hyperostoses are found at the level of the epiphyses, especially noticeable at the upper extremity of the tibia and the lower extremity of the radius and ulna. But the tibia is the direct revelation of syphilis. Its form alone will reveal this disease. It is large, thick, and misshapen, much widened and depressed in its middle portion. The crest is so much increased in size as to present a plane face. In general effect the bone is like the blade of a sword. This conformation is never found in any condi-

tion other than hereditary syphilis, of which it is the pathognomonic sign. Chronic lesions of the testicle are of frequent occurrence. This, together with a history of middle-ear trouble, interstitial keratitis, notched teeth, small scars upon the skin and mucous membrane, the imperfections of the bony skeleton, the arrest or anomalies of bodily development, and the special condition of the tibia, render the retrospective diagnosis of hereditary syphilis comparatively easy.

THE QUESTION OF BROTHERLY LOVE.

Brotherly love seems to be at a discount at Hot Springs, Ark., if one may judge by the sentiments of the editor of the *Hot Springs Medical Journal*. "Doctors hate Each Other" is the text, and the comment is this:

"*Humanum ingenii, odisse quem laeseris*, or words to that effect, is the way Tacitus applies the idea to the human race; but had he been acquainted with the modern profession of medical meanness, he would doubtless have changed the wording to read as an axiom, 'It is the mark of the doctor's (?) profession to hate those they have injured.' For doctors (?) are mean, and perhaps in no other profession does there lurk and skulk around more uncalled-for, more childish, more cowardly hatred than in the profession that is supposed to battle in brotherly love and harmony for the general welfare of fellow-man. A physician will sometimes listen to evil reports of a brother physician from the lowest source of gossip (for doctors are often thrown with the lowest classes), and will repeat it, much to the annoyance of the one maligned. When he finds what a wrong he has done by his tattling, he hangs his head on meeting the injured man; this makes him feel his innate meanness, and somehow or other a bitter feeling springs up in his heart against his victim, which slowly, but surely, grows into hatred."

We print all this because it probably represents in a degree the state of affairs in some towns of this great country. It is certainly gross exaggeration, and for many places entirely unjust and untrue. There is a very great amount of friendly feeling among the physicians of this and many other cities. Our society meetings, great and small, are always social reunions, which are a source of great pleasure. There exist the warmest friendships among us. In fact, there is no other calling where there is so much loyalty to each other, and where mutual help is so freely extended. It is a by-word among all that doctors "stick to each other."

The jealousies and backbiting which do exist are nourished mainly by men of petty minds and small attainments. The measure of professional advance is pretty accurately determined by the amount of local quarrelling. In proportion as the standard of medical and mental attainment increases the small jealousies disappear. We fear that Hot Springs ranks low.

Living Bacteria in the Mails.—The Postmaster-General has issued an order to the effect that disease germs, or other things of like character, no matter how securely put up, are of the character of poisons and extremely dangerous to health, and that they are therefore absolutely unmailable. Postmasters are instructed to see that no such things are allowed entry into the mails.

INORGANIC SALTS AS FOOD AND STIMULANT.

A good deal of attention has been called to the inorganic salts as promoters of nutrition and therapeutic agents of the tonic class. There have been published several formulæ for what is termed "artificial serum," consisting of various combinations of salts which are used for hypodermic injections. We read of neuralgias cured by injections of sodium phosphate, and of surprising tonic effects resulting from other injections. Whether this is another chapter in suggestive medicine it is difficult to say. There is, however, no doubt that inorganic salts have more than simple mechanical and chemical functions in the body. Professor R. H. Chittenden recently called attention to this in an editorial article in *The Dietetic and Hygienic Gazette*. Thus he says:

"Calcium phosphate, for example, is unquestionably just as important a factor in the life of the highly developed human organism as it is for the life of unicellular organisms, and this irrespective of the part played by this salt in the formation of the bony skeleton. All biologists are familiar with the need which micro-organisms have for calcium phosphate; it is an invariable constituent of all culture media, and without it growth and development become an impossibility."

Mineral salts have also been shown to have an actual stimulating effect on the heart. Professor Howell found that blood serum from which all proteids were removed had the power of stimulating the isolated frog's heart so that it will continue to beat normally for many hours without the addition of any other agent. Thus, in one experiment, the heart was first isolated and thoroughly washed out with normal saline. The solution of the inorganic salts of the serum was then injected and kept in the circulation. The heart continued to beat for from eight to thirteen hours. This could not have been due to any nourishment furnished it, but simply to some direct or indirect stimulus to the heart muscle.

It does not seem reasonable to infer from this, as some do, that the hypodermic injection of a teaspoonful of artificial serum can do any good. The best way to secure the good effects of the inorganic salts is by proper feeding.

Catherine de Medici's Doctor.—Pharnelius, like many other physicians, was much addicted to philosophy and mathematics, but, having taken to medicine, he speedily attained a great practice. Henry II. as Dauphin, and afterward as King, was his constant friend. Among the most grateful of his patients was Catherine de Medici, who believed that his skill had saved her from a state of childlessness, and who gave him, on the birth of her first-born, $10,000, ordering that a like sum should be paid to him at the birth of each succeeding son or daughter. I think that Cardano liked Pharnelius better than he liked Sylvius. He says he was a pale, lean man of about fifty, who loved his study, and was full of domestic affection. He was the Professor of Medicine in the University, and the first Court physician, but he must have puzzled Cassanate greatly, for he had an undisguised contempt for Court society.—*Blackwood's Magazine.*

The Pacific Medical Record is a new monthly published at Portland, Ore., and edited by Dr. Henry W. Coe. It fills a place by supplying a journal for the Northwest.

News of the Week.

Yellow Fever.—The case of Dr. Branham, of the Marine Hospital Service, in Brunswick, Ga., who was attacked with suspicious symptoms, has been declared to be one of yellow fever. Another case of the same disease has developed there, and, as the patient had not been in communication with Dr. Branham, it is feared that there are other foci of infection which have not yet been discovered. A tramp steamer from Vera Cruz arrived at Port Tampa, Fla., on August 18th. Soon after her cargo of sisal hemp was discharged several of the crew were taken ill and one died with symptoms of yellow fever. The vessel was at once sent to quarantine, and the town is now under surveillance by the State Board of Health. The quarantine at Pensacola has been raised, no new cases of a suspicious nature having occurred. A Norwegian bark with yellow fever aboard has been detained at quarantine at Wilmington, N. C.

Dr. H. Radcliffe Crocker, of London, arrived in New York recently on his way to Chicago and to the meeting of the Dermatological Association in Milwaukee.

Camphorated Carbolic Acid.—Dr. S. W. S. Toms adds to an article on this substance, published in the MEDICAL RECORD of August 19th, that it has been found to have no effect upon polished steel, and that it ought therefore to be the most satisfactory means for preserving surgical instruments, needles, etc., from rust and keeping them antiseptic.

Dr. George H. Walling died at his home in Louisville on August 21st, aged nearly seventy-four years. He was one of the oldest physicians in Louisville, having practised his profession there for more than half a century.

Pan-American Medical Congress.—The following is a list of papers to be read in the sections named:

Section on General Medicine.—"Formas del Impaludismo y Medio de Reconverlas," by Francisco A. Risguez, of Caracas, Venezuela; "Cold Steel as an Antirheumatic," by W. K. Vance, of Bristol, Tenn.; "Cholera Asiatica—1892," by J. D. Burch, of Aurora, Tex.; "Facts in Stethoscopic Percussion," by Henry Sewall, of Denver, Col.; "A Study of some Cases of Chronic Diabetes," by N. S. Davis, Jr., of Chicago, Ill.; "Typhoid," by W. C. Dabney (University of Virginia); "A Case of Acromegalia in a Giantess," by Woods Hutchinson, of Des Moines, Ia.; "The Value of Rest as a Therapeutic Agent in Chronic Pulmonary Tuberculosis," by Karl von Ruck, of Asheville, N. C.; "A New Anærobic Bacillus of Malignant Oedema," by F. G. Novy, of Ann Arbor, Mich.; "Progressive Pernicious Anæmia," by Judson Daland, of Philadelphia, Pa.; "On the Occurrence of a Form of Chronic Bright's Disease other than Typical Fibroid Kidney without Albuminuria," by D. D. Stewart, of Philadelphia, Pa.; "De la Buba," by Luis Razetti and N. Guardia, of Caracas, Venezuela; "La Folie chez le Nègre," by J. B. Da Lacerda, of Rio de Janeiro, Brazil; "La Cause de la Fièvre jaune," by J. B. Da Lacerda, of Rio de Janeiro, Brazil; "A New Disease of the West Indies," by Cuthbert Brown, of Barbadoes, West Indies; "The Bacteriology of Dengue Fever," by J. W. McLaughlin, of Austin, Tex.; "Culture of Anærobic Bacteria," by F. G. Novy, of Ann Arbor, Mich.; "Consideraciones sobre dos Casos de Anæmia por Ankylostoma duodenale, observados cual Hospital Victor Manuel de Lima," by J. B. Agnoli, of Lima, Peru; "A Contribution to the Study of Prolonged Intermittent Fever," by David Lobo, of Caracas, Venezuela; "The Nature of the Germicidal Constituent of the Blood Serum," by Victor C. Vaughn, of Ann Arbor, Mich.; "On Vaso-motor Ataxia," by J. Solis Cohen, of Philadelphia, Pa; "Recent Experiences in Croupous Pneumonia, with Observations on Treatment by Subcutaneous Injection of Saline Solutions," by R. F. Cunningham, of Birmingham, Ala.; "Cholera: its Diagnosis, Prognosis, and Treatment," by J. M. Hurley, of San Bernardino, Cal.; "Colera Morbo Asiatico," by Santiago Hernandez, of Santa Clara, Cuba; "The Importance of Eliminating Pelvic Diseases in General Diagnosis," by Mary H. McLean, of St. Louis, Mo.; "Clinical Notes on Amœbic Dysentery," by H. A. West, of Galveston, Tex.; "Some American Ideas about Chronic Diarrhœa," by Ephraim Cutter, of New York, N. Y.; "Tratamento medico del Vomito negro," by Segundo Bellver Mateo, of Havana, Cuba; "The Principles of Immunity and Cure of the Infectious Diseases," by Victor C. Vaughn, of Ann Arbor, Mich.; "Forced Respiration—Fell Method—A Plea for its General Adoption in Hospital and Naval Practice," by George E. Fell, of Buffalo, N. Y.

Papers by Manuel Carmona y Valle, of City of Mexico, Mexico; E. L. Shurley, of Detroit, Mich.; J. C. Wilson, of Philadelphia, Pa.; Charles G. Stockton, of Buffalo, N. Y.; F. Peyre Porcher, of Charleston, S. C.; J. H. Musser, of Philadelphia, Pa.; George Dock, of Ann Arbor, Mich.; W. C. Christopher, of Chicago, Ill.; C. S. Bond, of Richmond, Ind.; D. W. Prentiss, of Washington, D. C.; R. L. Miranda, of New York, N. Y.; William Osler, of Baltimore, Md.

Section on General Surgery.—"The Treatment of Pott's Disease of the Spine," by A. B. Judson, of New York, N. Y.; "The Probable Cause of Limp in the First and Second Stages of Hip joint Disease," by Harry M. Sherman, of San Francisco, Cal.; "Mechanical Treatment of Osteo-arthritis of the Knee," by Henry Ling Taylor, of New York, N. Y.; "Ununited Fracture," by Llewellyn Eliot, of Washington, D. C.; "Some Points in the Surgical Treatment of Appendicitis," by Augustus P. Clarke, of Cambridge, Mass.; "A Brief Splint Technology for Surgeons," by Edward A. Tracy, of Boston, Mass.; "Reconstructive Surgery," by Thomas G. Maghee, of Rawlins, Wyo.; "Urethral Polypus in the Male," by R. Menocal, of Havana, Cuba; "Simplicity in Surgery," by Robert W. Johnson, of Baltimore, Md.; "A Report of Four Cases of Brain Surgery," by Andrew J. McCosh, of New York, N. Y.; "Sondas y Bujiras Gercas del Dr. Castano," by Alberto Castano, Buenos Aires, Argentine Republic; "Tratamiento quirurgico de la Fiebre amarila," by Segundo B. Mateo, of Havana, Cuba; "In what Class of Cases is Drainage Required?" by H. O. Marcy, of Boston, Mass.; "Causation, Pathology and Treatment of Carbuncle," by David W. Graham, of Chicago, Ill.; "Improved Long Traction Hip-splint with Proper Method of Applying Counter-Extension," by Henry Ling Taylor, of New York, N. Y.: "Improved Apparatus for Pott's Disease," by Henry Ling

Taylor, of New York, N. Y.; "Apparatus for the Correction of Talipes-Equino varus and for the Retention of the Corrected Foot," by Henry Ling Taylor, of New York, N. Y.; "Practical Orthopædics," by Noble Smith, of London, Eng.; "Observations on the Rotary Lateral Curvature of the Spine with Special Reference to Etiology and Treatment," by Jacob Teschner, of New York, N. Y.; "Recumbence in the Treatment of Pott's Disease," by John C. Schapps, of Brooklyn, N. Y.; "Causes Contributing to Failure in the Treatment of Hip-joint Disease," by A. M. Phelps, of New York, N. Y.; "Some Thomas's Splints, with Demonstrations of Principles," by John Ridlon, of Chicago, Ill.; "Orthopædic Work Done at the Vanderbilt Clinic of New York, from January, 1889, to June, 1893," by John Ridlon, of Chicago, Ill.; "A case of Acute Arthritis of the Hip of Infants with some Remarks on the Etiology of the Affection," by Augustus Thornedike, of Boston, Mass.; "The Orthopædic Treatment of Infantile Paralysis," by L. A. Weigel, of Rochester, N. Y.; "Gymnastic Apparatus for Scoliosis," by L. A. Weigel, of Rochester, N. Y.; "Practical Points in the Treatment of Hip Disease," by A. R. Judson, of New York, N. Y.; "The Technique of the Plaster Jacket," by Reginald H. Sayre, of New York, N. Y.; "Club Hand," by Reginald H. Sayre, of New York, N. Y.; "Gastrostomy for Relief of Oesophageal Stricture, by Ernest Laplace, of Philadelphia, Pa.

Papers by Hernando Herrera, of Caracas, Venezuela; Juan M. Escolana, of Caracas, Venezuela; Ignacio Placencia, of Havana, Cuba; Ignacio Placencia, of Havana, Cuba; Martin Herrera, of Caracas, Venezuela; Miguel A. Leco, of Caracas, Venezuela.

Section on Obstetrics.—Address by Giles S. Mitchell, Executive President, of Cincinnati, O.; "Maternity Hospitals and their Results," by Joseph Price, of Philadelphia, Pa.; "The Axis Traction Principle in Obstetrics," by Joseph Hoffman, of Philadelphia, Pa.; "The Care of the Pregnant Woman in the First Half of Uterogestation," by W. H. Baker, of Boston, Mass.; "The Hemorrhages of Pregnancy and their Management," by J. O. Polak, of Brooklyn, N. Y.; "A Study of Placenta Prævia, Especially the Causes of the Hemorrhages," by Sarah Hackett Stevenson, of Chicago, Ill.; "The Management of the Placenta in Operations for Ectopic Gestation," by D. Tod Gilliam, of Columbus, O.; "The State of Obstetrics in General Practice," by Eliza H. Root, of Chicago, Ill.; "The Mechanism of Labor," by J. C. Rutherford, of Providence, R. I.; "The Induction of Premature Labor," by J. H. W. Chestnut, of Philadelphia, Pa.; "Aids to Easy Parturition," by A. J. C. Saunier, of Chicago, Ill.; "Occipito-posterior Positions and their Management," by F. C. Furgeson, of Indianapolis, Ind.; "The Therapeutic Application of Chloroform in Labor," by J. N. Upshur, of Richmond, Va.; "The Management of Some Cases of Difficult Labor," by William H. Taylor, of Cincinnati, O.; "Forceps Delivery," by James Campbell, of Hartford, Conn.; "The More Frequent Use of Forceps in the Multipara," by Lyman A. Berger, of Kansas City, Mo.; "The Use and Abuse of the Forceps," by W. Frank Haehnlen, of Philadelphia, Pa.; "Symphyseotomy," by Henri Jacques Garrigues, of New York, N. Y.; "What has Surgery done for Modern Obstetrics," by Thomas Opie, of Baltimore, Md.; "Recent Surgical Advances and their Relation to Conservative Obstetrics," by W. Reynolds Wilson, of Philadelphia, Pa.; "Puerperal Peri-uterine Inflammations, their Pathology and Treatment," by J. Foster Scott, of Washington, D.C.; "The Pathology and Treatment of Puerperal Infection," by Edward A. Ayers, of New York, N. Y.; "Infection of the Kidneys after Labor," by Barton Cooke Hirst, of Philadelphia, Pa; "Puerperal Eclampsia," by J. G. Cecil, of Louisville, Ky,; "Puerperal Eclampsia," by Theophilus Parvin, of Philadelphia, Pa; "Induction of Labor and Accouchement Forcé in the Preventive Treatment of Eclampsia," by Charles Jewett, of Brooklyn, N. Y.; "Contribucion al Estudio de la Septicemia puerperal," by Antonia Jose Amadeo, of Maunabo, Puerto Rico; "A Study of Dystocia," by Salvador Garciadiego, of Guadalajara, Mexico; "A Method of Performing Rapid Manual Dilatation of the Os Uteri, and its Advantages in the Treatment of Placenta Prævia," by Philander A. Harris, of Paterson, N. J.; "Nota sobre la Expresion de la Vegiga en la Retencion de Orina post Partum," by Sebastian Cuervo Serrano, of Sancti Spiritus, Cuba; "The Application of Graphics to the Fœtal Heart Sounds," by Hugh Hamilton, of Harrisburg, Pa.; "Compresion Uterina," by Maria de Ita, of Pueblo, Mexico.

Section on Gynecology and Abdominal Surgery.—"The Value of Certain Methods of Surgical Treatment for Chronic Procedentia of the Uterus," by Augustus P. Clarke, of Cambridge, Mass.; "Hysterectomy for Fibroids, Methods and Results," by Joseph Price, of Philadelphia, Pa.; "The Treatment of Suppurative Disease of the Pelvic Organs," by H. J. Boldt, of New York, N. Y.; "The Significance of Endometritis and the Necessity for its Early Cure," by Joseph Tabor Johnson, of Washington, D. C.; "An Inquiry into the Etiology of Mental Disturbances Following Operations upon the Pelvic Organs of Woman," by George H. Rohe, of Catonsville, Md.; "Report of One Hundred Operations done for Serious Structural Diseases of Abdominal and Pelvic Organs in Woman," by I. S. Stone, of Washington, D. C.; "Two Cases of Ectopic Gestation with Unusual Complications, Laparotomy and Recovery," by T. H. Hawkins, of Denver, Col.; "Ought Craniotomy to be Abolished?" by W. H. Myers, of Fort Wayne, Ind.; "What I have Learned in the Surgery of the Gallbladder," by Joseph Eastman, of Indianapolis, Ind.; "Gynecological Treatment in Sterile Women—the Cause and Treatment," by De Saussure Ford, of Augusta, Ga.; "Drainage of Ovarian Cysts where the Adhesions are Such that it is Impossible to Remove the Sac," by A. Vander Veer, of Albany, N. Y.; "The Relation of Urinary Conditions to Gynecological Surgery," by Charles P. Noble, of Philadelphia, Pa.; "Shortening of the Round Ligaments in Retro-position of the Uterus," by T. Johnson Alloway, of Montreal, Can.; "Total Extirpation of the Fibroid Uterus," by Florian Krug, of New York, N. Y; "Vaginal Hysterectomy," by E. E. Montgomery, of Philadelphia, Pa.; "Surgical Treatment of Tubercular Peritonitis," by M. B. Ward, of Topeka, Kan.; "A Last Resort in the Operative Treatment of Hernia," by Robert T. Morris, of New York, N. Y.; "When Operation is Refused, What then?" by George R. Dean, of Spartanburgh, S. C.; "Perineo-vaginal Restoration," by Edward W. Jenks, of Detroit, Mich.; "The Present Status of our Knowledge of the Pathology

of Pelvic Inflammation, with Special Reference to the Treatment of Pelvic Abscess," by R. B. Maury, of Memphis, Tenn.; "The Omentum, and the Rôle it Plays in Operative Work upon the Abdomen," by James F. W. Ross, of Toronto, Can.; "Hysterectomy: Indications and Technique," by J. M. Baldy, of Philadelphia, Pa.; "Observations on Total Extirpation of the Uterus for Cancer, Based upon a Personal Experience with Thirty-two Cases," by Charles A. L. Reed, of Cincinnati, O;; "Ectopic Pregnancy," by Joseph Hoffman, of Philadelphia, Pa.; "After-treatment of Abdominal Section," by L. S. McMurtry, of Louisville, Ky.; "The Technique of Total Extirpation of the Fibromatous Uterus," by George M. Edebohls, of New York, N. Y.; "The Intra-uterine Tampon," by Andrew F. Currier, of New York, N. Y.; "A Plea for the Value of Early Diagnosis and Prompt Electrical Treatment of Fibroid Tumors of the Uterus," by G. B. Massey, of Philadelphia, Pa.; "The Co-ordination of the Muscles Closing the Urethra, Vagina, and Rectum, and its Application to the Precise Diagnosis and Surgical Treatment of Injuries to the Pelvic Floor," by A. W. Abbott, of Minneapolis, Minn.; "Estudio Clinico sobre las Heridas Penetrantes del Abdomen y Pecho," by Juan Manuel Escalana, Caracas, Venezuela; "Cavernous Angioma of the Uterus (with specimen presented) Removed per Hysterectomiam Vaginalis," by H. J. Boldt, of New York, N. Y.; "The Dorsal Decubitus after Confinements and Miscarriages is the Commonest Cause of Retroversion with Fixation," by A. Lapthorne Smith, of Montreal, Canada; "Observaciones sobre un caso de Preñez extra uterina (Tubaria derecha) Operada en el Hospital de San Salvador por el Dr. José Antonio Delgado," by J. Antonio Delgado, of Guatemala City, Guatemala; "Notes pour l'Histoire Des Fibro-miomes Uterins," by Nicholas San Juan, of the City of Mexico, Mexico; "The Results of Vaginal Hysterectomy," by Andrew McCosh, of New York, N. Y.; "Apuntamientos para el Estudio Comparativo de la Pelvis Mexicana y Europea y Consecuencias Practicas aque da Lugar la Especial Conformacion de la Primera," by Manuel Gutierrez y Tomas Noriega, of the City of Mexico, Mexico; "Analysis and Deduction from my First One Hundred and Ten Laparotomies for Appendicitis, with Report of Experimental Investigation," by J. B. Murphy, of Chicago, Ill.; "A Study Based Upon One Hundred Consecutive Cases of Removal of Diseased Uterine Appendages, with two Deaths," by R. Stansbury Sutton, of Allegheny, Pa.; "Does the Catamenia Invariably Appear Earlier in Hot than in Cold Climates?" by J. H. O'Donnell, Winnipeg, Manitoba, Can.; "Cura Radical de las Hernias," by Luis C. Maglioni, Buenos Ayres, Argentine Republic; "The After-treatment of Cœliotomy Cases with Special Reference to Shock and Septic Peritonitis," by Eugene Boise, of Grand Rapids, Mich.; "Habits of Posture a Cause of Deformity and Displacement of the Uterus," by Eliza M. Mosher, of New York, N. Y.

Papers by H. A. Kelly, of Baltimore, Md.; J. Algernon Temple, of Toronto, Can.; B. E. Hadra, of Galveston, Tex.; W. E. B. Davis, of Birmingham, Ala.; W. Gardner, of Montreal, Can.; John R. Haynes, of Los Angeles, Cal.; E. W. Davis, of Philadelphia, Pa.

Section on Hygiene, Climatology, and Demography.—"The Climate of Jamaica," by J. C. Phillippo, M.D., of Kingston, Jamaica; "Les Mesures prophylactiques Contre les Epidémies," by J. B. Da Lacerda, M.D., of Rio de Janeiro, Brazil; "Practical Measures in the Prevention of Tuberculosis," by Lawrence F. Flick, M.D., Philadelphia, Pa.; "Apuntes Sobre la Patologia del Departmento Fluvial de Loreto," by Leonidas Arendaño, M.D., Lima, Peru; "Ojeada Retrospectiva Sobre la Organizacion de la Sanidad en los Ejercitos Españoles," by Felix Estrada y Catoyra, M.D., Havana, Cuba; "The Climate of Western North Carolina, with a Consideration of the Relative Value of High and Medium Altitudes in the Treatment of Pulmonary Tuberculosis," by Karl von Ruck, M.D., Asheville, N. C.; "The Climate of the Santa Cruz Mountains," by James Henry Clark, M.D., Jamaica, W. I.; "On the Early Detection and Seasonable Climatic and other Treatment of Phthisis," by Charles Denison, M.D., Denver, Col.; "The Distribution of Disease by Isthmian Practice, or the Direct Responsibility of the Republic of Colombia, S. A., in the Burial and Disinterring of the Dead on the Isthmus of Panama," by Wolfred Nelson, M.D., New York, N. Y.; "The Three Climates of Jamaica, B. W. I., Its Coast or Tropical, Temperate, and Mountain Climates. Jamaica, considered as a Winter Island for Health," by Wolfred Nelson, M.D., New York, N. Y.; "A Brief Consideration of Elephantiasis Arabum, as Observed in the Samoan Islands," by John C. Wise, M.D., Washington, D. C.; "On the Climatology of Egypt," by Dr. Grant (Bey), Cairo, Egypt; "Hygiene and Demography of Jamaica," by James Cecil Phillippo, M.D., Kingston, Jamaica; "The Need of Research in Preventive Medicine," by J. M. Postle, M.D., Hinckley, Ill.; "The Effect of Advanced Civilization on Disease," by W. J. Moody, M.D., Plainfield, Ia.; "On the Climatology of Mesopotamia," by John Sundberg, M.D., U. S. Consul, Bagdad, Asiatic Turkey; "On the Climatology of Puerto Rico," by Pedro José Salicrup, Secretary of the Section, New York, N. Y.; Formal Address, by Albert L. Gihon, M.D., Medical Director United States Navy, Naval Hospital, Washington, D. C.

Discussions on "Necessary Laws that Should be Enacted by the Several States by which Municipal Health Authorities may be enabled to Control Infectious Diseases;" "The Cause and Prevention of Diphtheria;" "The Limitation and Prophylaxis of Tuberculosis;" "The Rôle of Municipal Sanitation in the Limitation and Eradication of Yellow Fever."

Section on Marine Hygiene and Quarantine.—Formal Address by Walter Wyman, M.D., Executive President of the Section, Surgeon-General of the United States Marine Hospital Service, Washington, D. C. Discussions on "The Hygiene of Vessels, Commercial and Naval, Including the Question of Ventilation, Heating, Sanitary Arrangements, the Disposal of Cargo so as to Facilitate Disinfection, Steam Disinfection, Food Supply," etc., opened by John J. Cassidy, M.D., Ontario, Canada; "Epidemic and Exotic Diseases Propagated by Shipping. What Diseases Should be Quarantined? Responsibility of Nations for Epidemics; India for Cholera, South America for Yellow Fever. Can a Feasible Plan be Devised to Totally Exterminate Cholera? International Intervention to Prevent the Propagation of Cholera or other Epidemic Diseases by Pilgrimages or Immigration," opened by Wolfred Nelson, M.D., New York,

N. Y.; "International Uniformity in Quarantine Regulations," opened by Juan J. Ulloa, M.D., of San José, Costa Rica; "The Medical Officers of Passenger Vessels; Methods for their Selection, Duties," etc.; "The Vital Statistics of Seamen and Firemen. The Question of the Medical Examination of Crews Preparatory to Shipping;" "The Supervision of Vessels by Government Medical Inspectors at Ports of Arrival and Departure. Code of Rules for Handling an Epidemic Disease that Breaks out on Shipboard. Disinfection of Passengers and Crew During a Voyage. Location and Arrangement of Ship's Hospitals;" "Arrangement of Detail and Equipment of Quarantine Stations; *a*, Inspection Stations; *b*, Local Quarantine Stations; *c*, Refuge Stations. Methods for Handling Infected or Suspected Vessels. Interstate and Inland Quarantine. Sanitary Cordons; Camps of Refuge; Camps of Probation. Recent Improvements in Hospitals for Infectious Diseases. Railroad Inspection and Quarantine. Length of Time Vessels Should be Held in Quarantine. Conditions that Should Determine Proclamation of Quarantine Against a Country;" "Under what Requirements may Passenger Traffic be Carried on between a Port Infected with Yellow Fever and a Southern Port of the United States During the Summer with the Least Obstruction to Such Traffic;" "What Merchandise Should be Considered as Requiring Treatment if Shipped from a Port or Place Infected with Cholera, Yellow Fever, or Small-pox?" "Methods of Disinfection: *a*, Persons; *b*, Baggage; *c*, Cargoes; *d*, Vessels. Recent Improvements in Quarantine Appliances; Steam Chambers; Sulphur Furnaces. Liquid Sulphur Dioxide as a Disinfectant. Treatment of Ballast: Water; Solid. What Time Should an Infected Vessel be Detained in Quarantine? *a*, For the Cholera; *b*, For Small-pox; *c*, For Typhus Fever; *d*, For Plague; *e*, For Yellow Fever. Methods of Disposal of the Bodies of those that Die While in Quarantine."

Pan American Medical Congress.—*Transportation.*—The Transportation Committee of the Pan American Medical Congress makes the following announcement in regard to reduced rates for delegates and members of their families from all sections of the United States, also from the Pacific coast, ports of Mexico and Central America. Delegates from the territory of the Trunk Line Association east of Pittsburg and Erie and Buffalo, from points in the New England States in the territory of the New York and Boston Lines Passenger Associations, from points in Central Traffic Association, embracing the territory from Buffalo, Pittsburg, and Parkersburg, W. Va., in the east to Chicago and St. Louis on the west, and from points in the Southern Passenger Association, embracing the territory south of the Ohio and Potomac Rivers and east of the Mississippi River, will be granted one and one-third fare on the certificate plan. Delegates from points west of the territory of the Central Traffic Association can avail themselves of the World's Fair excursion tickets as far as Chicago and secure from Chicago the fare and a third on the certificate plan to Washington. Delegates from South America, the Pacific coast, Mexico, or Central America, can secure from point of starting round trip tickets to Chicago at the World's Fare rate either by way of San Francisco or New York. The latter can secure from New York the fare and a third on the certificate plan on application to the ticket offices of either the Penn. RR. or B. & O. RR. The certificates referred to must be secured at the time of the purchase of the ticket to Washington on which, properly signed by Dr. H. L. E. Johnson, Chairman of the Transportation Committee, the reduced rate will be allowed returning. To be more specific, the full fare is paid on the going trip to Washington, and a two-thirds reduction is allowed when the ticket is purchased in Washington for the return trip. These certificates must be obtained at the ticket offices at the time the ticket is purchased. The purchaser must be sure to state that he is a delegate and will be in attendance at the meeting.

Progress of the Cholera.—No important change in the cholera situation has taken place during the past week. The disease is said to be abating somewhat in Naples, though there are many cases reported from small towns in the neighborhood of that city. It still exists in Campobasso and other places in Central Italy. A suspicious case has been reported from Palermo. In Vienna there are said to be about twenty-five new cases each day, and the disease has broken out in the military camp at Bruck, twenty three miles from Vienna. The usual number of cases are reported in Brahilov and Sulina in Roumania. In Galicia the epidemic is said to be abating, but the disease has broken out in several places in Hungary. The number of new cases in Russia during the week ending August 22 was 2,359, and the number of deaths 934. Cholera is declared to be epidemic in St. Petersburg, and is still active in Moscow. The reports from our quarantine station have been favorable. No new cases of the disease have been brought here from Naples or from any other foreign port. The cases discovered upon the Karamania have nearly all recovered. One man who was convalescing from cholera died of pneumonia. A man died in a lodging-house in this city a few days ago after having suffered from diarrhœa and vomiting all night. He received no medical assistance, but the body was examined by an officer of the Health Department, and the disease was declared not to be cholera.

Dr. William S. Hurd, of Paterson, N. J., died in that city on August 18th, after a long illness. He was born at Fishkill Landing, N. Y., in 1847, and was graduated from the College of Physicians and Surgeons in this city in 1877. In 1878 he was elected assistant city physician of Paterson, and served five terms by yearly re-election. He also served a three-year term as Coroner of Passaic County.

Four Physicians Sued.—A boy died in this city, in June, 1892, while under the influence of chloroform, and although the coroner's jury of medical men exonerated the physicians present at the operation from all blame, the parents of the child claim that the anæsthetic was carelessly administered, and have sued the attendants for damages. The boy was four years of age, and the damages claimed are $5,000.

A Suicidal Mania is said to be prevailing in London and Paris at the present time, many of the victims being young men and women in comfortable circumstances who have no apparent cause for putting an end to themselves. It is attributed by some to the long spell of hot dry weather which has visited Europe this summer.

Society Reports.

BRITISH MEDICAL ASSOCIATION.

Sixty-first Annual Meeting, held at Newcastle-on-Tyne, August 1, 2, 3, 4, and 5, 1893.

(Special Report to the MEDICAL RECORD.)

SECTION OF MEDICINE.

FIRST DAY, WEDNESDAY, AUGUST 2D.

DR. W. MILLER ORD, PRESIDENT, IN THE CHAIR.

Discussion on Chronic Glycosuria.—This discussion was opened by SIR DYCE DUCKWORTH, who said that glycosuria was well known to be a far more formidable disease in early youth than it was in adult life. There was some difficulty in clearly defining where glycosuria ended and diabetes commenced. Clinical knowledge of diabetes was very extensive; but the morbid anatomist was still puzzled at the want of lesions found after death. Claude Bernard, Pavy, and others had shown that both the nervous system and the liver were implicated in the disease; but it was difficult to account for the more acute character it exhibited in youth. In cases of "lean" diabetes, it had been said that the pancreas was affected; but it was too rash generalization to assert that all emaciated diabetics had the pancreas affected. Cancer of the pancreas often produced no glycosuria. Lancereaux had asserted that fat diabetics had no pancreatic affection. Acute diabetes occurred in middle life when the pancreas was intact. He maintained that only glycosuria with polyuria ought to be considered as diabetes. Glycosurics were usually active persons with good appetites, and not infrequently drinkers of alcohol and free livers. Much alcohol with plain living did not produce the disease. The urine was bright and clear, and tongue clean. Some diminution of sexual desire was often present, but, on the whole, the patients usually had no bad symptoms. Many complained of weakness, and pain in the back sometimes was complained of. The disease came to be recognized generally about the age of fifty. Carbuncular troubles were rare. The phalangeal joints were often enlarged. Large consumption of food and irritability of the great nerve centres were apt to produce gout and diabetes. In many cases, the evil might originate from the brain. Morbid histology and pathology had as yet thrown no light upon this disease. We need not hope to see a sclerosis of any part in future investigations; but experiments on animals might clear up the difficult problem. Glycosuria was often accompanied by an excessive secretion of urea. Sometimes glycosuria and albuminuria alternated. Addiction to strong wines, and grief, were given as causes, and Dr. Harley said that alcoholism was the commonest cause of diabetes. Diabetics were very vulnerable and liable to gangrene of sores. If untreated, many of them rapidly succumbed. Cataract was rare in chronic cases. As to the diet of glycosurics, sometimes they required no change of food, but variety should be given. Opium was not of use in slight glycosuria. Arsenic was often of service in five-minim doses. Dr. Murray used cocaine and restricted diet. With respect to hygiene, regular habits and action of the skin should be attended to. Mountain districts were better than seaside resorts, and the country than the town. The pleasures of society should be shunned. Cases associated with gout did well. With due care advanced age might be attained; but there were many dangers to be avoided by the diabetic patient which should make him always on his guard.

PROFESSOR GAIRDNER, of Glasgow, said he could not say anything on the general questions, but narrated the case of a friend who died in 1889. In this case there was no evident mental sorrow to produce the disease. He was a man disposed to corpulence, but who liked active exercise and took long walks. He was a little weak in one of his knees. This patient was glycosuric. The patient went to Dublin, and saw Dr. R. Macdonnell. He was put on the usual regimen, for some years abstaining from starch and sugar. The disease lasted for many years. There was no gouty history in his family. He was in a government office, and declined entering on a higher step because of his illness. During his youth he had passed much uric acid. Perhaps his mother had been glycosuric. Patient's age at death was sixty-four, having been glycosuric for about thirty years. He had had an attack of gout in Rome, and his foot took on gangrene, and this carried him off.

DR. SAUNDLY, of Birmingham, said he thought that Sir D. Duckworth had hardly been able to define clearly the group of glycosurics he had desired to do. He had seen that many cases of glycosuria had ended in true diabetes. The discovery of the existence of glycosuria was no reason for treating it; and the proper therapeutics consisted in treating symptoms, but not glycosuria. He could not speak very confidently of the action of any drug on diabetes.

DR. W. R. THOMAS, of Bournemouth, mentioned the case of a gentleman, aged thirty-five, with diabetes. This gentleman was suffering from polyuria. He had been worrying a good deal at home about his business. He, Dr. Thomas, advised retirement from business, and patient got greatly better. Another gentleman became much worried with a drunken son, from whose conduct he suffered much. He was treated in the ordinary way. Careful hygiene and the giving up of business did much good. Since he, Dr. Thomas, had looked for worry as a cause of this disease, he had constantly found it to exist. His experience was that sometimes it was not necessary to be very strict in dieting; but he recommended much exercise.

DR. C. R. DRYSDALE, of London, said that it was interesting to hear from Sir D. Duckworth, that neither physiology nor pathology had thrown much light on the causation and treatment of the fatal disease, diabetes. He could not agree that it was useful to define accurately glycosuria from diabetes. A few years ago it had been the fashion to define between albuminuria and Bright's disease; but such refinements were not useful, he thought, in the treatment of disease. He thought that Claude Bernard's hypothesis that the liver secreted sugar, threw light on the value of animal diet in diabetes, and as the disease progressed its greater unamenability to dietetic treatment. It had been questioned whether the duration of the disease could be much affected by diet; but certainly meat diet gave the patient a far more enviable existence than without it. Rich people alone could be well treated in this sad disease, which rarely lasted as long as twenty years. He once recommended a workingman to seek New Zealand, where he could get meat thrice daily, and this advice was followed by excellent results. Exercise was useful.

DR. GARRETT ANDERSON said that of late she had abandoned the term glycosuria, and used the term diabetes. One of her patients, a little boy, had glycosuria. He was nine years of age, and she had given a very bad prognosis when she first saw him; but he kept lingering on wonderfully. A lady went on passing sugar and albumin for eighteen years. She considered exercise in the open air as very beneficial. And, as to diet, she had found often how difficult it was to get patients to eat meat. A great deal of out-door exercise was good.

DR. MARKHAM SKERRIT said that he also could not recognize any very clear line of demarcation between glycosuria and diabetes, although certainly in some cases there was a persistency of glycosuria without diabetes. With regard to treatment, it must be remembered that we had to do with glycosuria, and he was much in favor of arsenic and a large amount of exercise in the open air.

DR. SHUVLETON SMITH, of Bristol, showed a drawing of a cervical tumor of the cord, which had been accompanied by glycosuria. He asked whether it was possible to define so sharply cases of glycosuria as had been tried

by Sir D. Duckworth, and agreed with Dr. Drysdale that this attempt resembled that of diagnosing between albuminuria and Bright's disease, and that it was a very difficult, nay, impossible feat. The disease of glycosuria was far more common than was supposed, and was also much more amenable to treatment than many would allow. Gout and hæmorrhoids often alternated with glycosuria. Thus he had a patient who, whenever he had loss of blood at stools, lost sugar in his urine. The gouty diathesis was intimately connected with the glycosuric, and deficient elimination was the proximate cause of the symptoms of diabetes. It was the duty of the practitioner to make way against this state of things. There was much evidence to show that plenty of fluids should be taken in glycosuria, so as to give an ample flushing out of the intestine. Perhaps alkalies might be of service in some cases. Alkaline saline drinks were occasionally of use.

A member then spoke who desired to remain anonymous, as he was himself suffering from glycosuria; apparently he was about thirty years of age. He said that recently he had been suffering both from polyuria and glycosuria, with urine of 1.040 specific gravity, and one hundred and fifty ounces being passed in the twenty-four hours. On careful dieting, the sugar fell off in quantity, and also the amount of urine, and he felt better at once. The physician he consulted advised him not to take toast, as in it there was more soluble matter than in bread. He used the diabetic bread and found it quite agreeable. Polyuria had disappeared in his case, and he now drank only about fifty ounces. At times he was very weak. He had a small gouty nodule on one of his fingers. He slept well, but wakened up with stiff joints. He had lost a stone in weight and had bilious attacks frequently. He had at present only three grains per ounce in his urine. He took one-eighth grain of codeia with cascara sagrada and nux vomica, all of which was easily carried about with him. He attributed his attack to overwork and anxiety, as he had worked night and day some years ago to get another degree, while carrying on a large practice. He had been nearly a total abstainer from alcohol, and had much walking exercise every day.

Dr. Redmond, of Newcastle-on-Tyne, thought that the term diabetes was misleading. He would use the word polyuria to denote excess of urine, and qualify it with the word saccharine or simple as the case might be. He narrated the case of a gentleman aged sixty, who passed ninety ounces of urine with four grains of sugar in the ounce. He suffered from much mental strain, and took a good deal of alcohol. He gave him saccharin and cut off his starchy food, following this up with alkalies and nux vomica, and he was much benefited.

Dr. Ord, of London, said that he considered that glycosuria should be looked upon as a symptom. The practitioner was strictly bound to look narrowly at all causes of this disease. Hereditary transmission was probably one cause to be taken into account. The disease was sometimes connected with angina pectoris, sometimes preceding attacks of this disease, sometimes following after such attacks. In such cases there was much arterial tension, and nitrite of amyl was sometimes a valuable remedy. He, Dr. Ord, had some years ago spoken of gout of the liver, an expression he still adhered to. Causation should be attended to in the treatment of every case of glycosuria. A highly restricted diet could not be continued indefinitely, and in some cases patients thus treated became quite emaciated from such vigorous treatment, and succumbed to it. Regular exercise in the open air, eight or ten miles daily, was of service; but fatigue was hurtful.

Sir Dyce Duckworth, in reply, said the discussion had been most interesting and useful. The present teaching about the disease was nebulous, and such discussions were most useful to teachers for their lectures. He observed that many of the speakers were inclined to class glycosuria as chronic and mild diabetes. This he could not admit. A most important point in the future would be to examine the hereditary histories of all patients, by means of portraits, etc., and to see whether the tissues of the patient were intact. This was a guide to prognosis. The rank of the patient was important, as Dr. Drysdale had said it was a bad thing for a poor man to have glycosuria who could not command good diet. The glycosuria of children was the gravest of all. Under eighteen the disease was most acute, and probably often hereditary in origin. Many patients had no thirst and did not waste, even when passing much urine. He objected to call all these cases merely acute or chronic diabetes. He would say one word of warning about much exercise. He had lived with a diabetic patient and closely watched him, and would say that exercise was good, but only within the limits of fatigue. Rigid diet could not be tolerated by any human being for more than a few weeks, and was a cruel treatment, so that patients often lost their morale and only pretended to make use of it. Finally, he had a high opinion of arsenic in glycosuria.

Myxœdema.—Dr. George Murray showed a woman with well-marked symptoms of the disease, who, after a lengthened treatment, had been cured by the injections of (ten minims each injection) glycerine extract of thyroid glands. She had been treated for more than two years, and whenever the treatment was intermitted the symptoms returned. In two patients treated by glycerine extract of thyroids, cardiac weakness had carried off the patients, who took too much exercise for their strength. Such patients took a fluid drachm of thyroid extract per week. He also showed lantern slides of several patients, both male and female, which exhibited the appearances seen before and after the cure of the affection.

Professor Oliver, of Newcastle, said that myxœdema was rather an uncommon disease. In one instance, a case of it had in his experience recovered spontaneously. His own clinical experience corroborates fully all that had been said by Dr. Murray as to the enormous value of thyroid injections.

Dr. Allison showed a female patient who had developed myxœdema in pregnancy, and had lost the hair of her head, and had many of the well-marked features of the disease. Another patient, female, aged fifty three, was first seen in July, 1886. Her pulse was 80, her hands much swollen, and she was getting bald. The urine was alkaline and loaded with lithia. Next, a male patient was shown who had been cured of this disease, which was much more frequent in women than in men. All of these cases had been treated by portions of the thyroid of the sheep slightly cooked. In this case the eyebrows returned first of all, and afterward the hair of the scalp. He took one lobe of a sheep's liver daily. This was quite a wonderful treatment. The active principle in the thyroid was, he thought, a salt. One patient he had treated was covered with eczema before treatment, and this speedily disappeared.

Sir Dyce Duckworth mentioned a case of myxœdema which he had treated with the most perfect success. This was, he said, one of the most marvellous discoveries of modern times, and it might open up new possibilities in therapeutics undreamed of at present. But he would caution his hearers not to be led away into all sorts of experiments with thyroid glands in all sorts of diseases, for such new departures were apt to bring discredit on the practice of medicine, and make the public suppose that medical men were not so grave and scientific as they ought to be.

A member asked whether thyroid extract had been used for the treatment of ordinary baldness, and what had been the result.

Dr. Ord said he did not know in how far it might be possible in the future successfully to treat cases of baldness, but hitherto thyroid extract had not often been tried, and the results had not been encouraging. The growth of the hair sometimes was improved by jaborandi. In one case, after profuse sweating the hair began to grow and of a better color than previously. The cure of myxœdema without treatment was most exceptional and hope-

less. Dr. Garrett Anderson's case showed that it might occasionally occur and disappear spontaneously, but that was rare.

Professor Oliver said that he had noticed a distinct pause between inspiration and expiration in some patients with myxœdema.

Dr. Ord said that before Dr. Murray's experiments were known, he had successfully treated myxœdema by pieces of goitre which he had transplanted. The treatment by thyroid could not be called a palliative one. He held it as certain that a lengthened discontinuance of treatment led to relapse. A patient he had had in St. Thomas's Hospital was getting steadily worse, and could not bear cold. A whole sheep's thyroid was daily administered, and her temperature rose to 104° F. Hence it was well to be cautious in the use of this remedy. He began with twenty minims of glycerine extract daily, and this did good in a few days. The voice gradually got stronger. There was great variation in the physical state of patients. In two cases albuminuria disappeared after the treatment. Probably heredity played a part in myxœdema which might gradually be cleared up. Meanwhile nothing was known in this matter. The meeting then adjourned.

Second Day, Thursday, August 3d.

Dr. Ord, President, in the Chair.

Atrophic Paralysis.—Dr. William Ferrier read a paper "On the Pathology and Distribution of Atrophic Paralysis." The streaked muscles were, he said, quite independent of the anterior columns of the cord. There were several types of atrophy. There were hereditary cases, etc. Juvenile muscular atrophy attacked the muscles of the shoulder first, and later on the lower extremities. All of these types agree in many respects. The pseudo-hypertrophic paralysis of the lower extremities was one form. It had generally been supposed that the hypertrophy of muscles was dependent on nervous weakness; but there was some evidence to show that the muscles might be primarily attacked. There was usually no visible lesion of the anterior horn of the cord. It seemed a large assumption that a mere dynamic alteration of the anterior columns could account for such severe lesions of the muscles. The deltoid, in adult life, was often affected first, not so in children. This was a great objection to the hypothesis of nerve lesion being the cause. Lesions of the peripheral nerves formed a second group. Those muscles became paralyzed which took their innervation from a certain nerve. Motor conduction might be entirely blocked, while sensation went on as usual. Disease of the recurrent laryngeal caused first paralysis of the crico-arytenoid muscles. The abductor muscles succumbed more quickly than the adductors. Polio-myelitis was a common cause of paralysis of muscles. The peripheral nerves were changed in such cases by poisoning with alcohol, lead, and other poisons. Special poisons had special affinities for special muscles. This had been explained by Erb to show dynamical affections of the anterior cornua of the cord. He thought that the extensor nerves succumbed more quickly than the flexors. In hemiplegia and paraplegia, this weakness of the extensors was plainly seen. He considered that there was also a central affection of the cord. This accounted for the early affection of the deltoid and other extensors. It was not easy to understand why lead should chiefly affect the upper extremity, while alcohol affected the lower limbs. The diphtheric poison chiefly affected the ciliary muscles of the eye. Nicotine first paralyzed the ciliary muscles, and then the muscles of the eyeball. The essential cause of the atrophic paralysis in other palsies was central. Peripheral paralysis did not depend on the muscular nerves. The centre for labio-glossal-pharyngeal paralysis was a separate one.

Ophthalmoplegia was sometimes associated with facial paralysis. In bulbar paralysis facial palsy also occurred. The orbicular oris and the tongue were innervated from the hypoglossal nucleus. In some cases of bulbar paralysis, it was difficult to give a good account of the causation. A muscle might be paralyzed in one function and not in the other. It would seem impossible that one muscle could be affected from a central lesion. The intrinsic muscles of the hand were represented by the lower part of the cervical region. All the muscles of the upper extremity might be attacked before the supinator longus. In the lower extremity, the tibialis anticus sometimes escaped, while the other muscles were affected, showing that it had a separate centre. Perineal muscular atrophy was hereditary. It began in the lower extremity, and probably the intrinsic muscles of the foot were first attacked. Changes took place in the peripheral muscles. Probably there was here an affection of the anterior columns of the lumbar column. It was myo-neuropathic in its character. The wasting took place occasionally very rapidly. Microscopic observation failed to discover any disease of the nerve in such cases. It was probably a neurosis. He had recorded a case where wasting on one side took place after amputation at the wrist.

Dr. Alexander Bruce referred to a case admitted into the Royal Infirmary, Glasgow, with rheumatism and syphilis. Both ankle-joints, knee-joints, and elbows were affected. On July 7th, he complained of weakness of the arm, which had come on since he had entered hospital. There was considerable wasting of the muscles of the upper extremity, deltoid, and others, such as supra- and infra-spinatus muscles. There was no pressure on any point of the nerves. The action of the muscles to electricity was remarkable. There was only slight evidence of reaction to continuous current. There was no difference in reaction on the two sides. The interrupted currents gave nearly similar results. There was no evidence of neuritis, and electricity did not indicate profound lesions. He thought the rheumatism of the joint of the finger had been the cause. The rheumatism had produced some dynamical effect. This was very different from what occurred in chronic rheumatic arthritis.

Dr. Handford said that occasionally muscular atrophy was preceded by induration. In a patient addicted to rum the deltoid, biceps, and other muscles became affected. In the course of a year his muscles began to recuperate. There was great anæsthesia over the muscles. There was neuritis in this case, but redness over the muscles.

Dr. Cowley said a family had been under his care for a few years with pseudo hypertrophic paralysis. Some members of the family exhibited this disease in varying degrees. Two boys in the family had such hypertrophy of the pectoralis as to appear to have a mammary gland. A boy, aged four, could only ascend the stairs with much difficulty. A third member of the family, a boy, was much affected, and three other children more or less affected.

Dr. Grainger Stewart said that it was charming to hear the great clearness of Dr. Ferrier's paper. He spoke of the atrophy of muscles after rheumatic affections. One patient's deltoid in one night began to atrophy and rapidly disappeared. With regard to prognosis, he had learned to be less afraid of nerve-origin cases. The value of strychnia subcutaneous was twice as good as by the mouth.

Dr. Handford said that he could corroborate Dr. Stewart's remarks. If after three months of treatment no improvement took place, the case might be considered hopeless, but if taken early nervous diseases often rapidly improved.

Dr. Drysdade greatly admired the progress in diagnosis shown in Dr. Ferrier's paper since the days of Duchenne and Brown-Séquard; but was sorry to say that the treatment of such diseases was still in a most melancholy condition, and the prognosis of paralysis, whether syphilitic or otherwise, usually gloomy.

Dr. D. Ferrier said that he agreed with the use of strychnine as recommended by Dr. Grainger Stewart, and

spoke hopefully of the future in the treatment of nervous diseases.

Heredity in Phthisis.—Dr. Solly, of Colorado, read a paper on the "Effect of Heredity on the Progress of Phthisis." He mentioned that in his practice about fifty per cent. were hereditary. Women had a higher tendency to heredity in this disease than males. Those who inherited had a worse prognosis than others, but were more careful in attempting to ward off the disease which they knew they were liable to. There was no time for debate given, which was deplored by Dr. C. R. Drysdale and others.

Thoracic Aneurism.—Dr. Drummond, of Newcastle, gave a demonstration on thoracic aneurism. During the last ten years one hundred and fifty cases of thoracic aneurism had been treated in Newcastle infirmaries. He had noted fifty cases carefully in the post-mortem room. He exhibited nine patients. A great number of lantern slides were shown of different varieties of aneurism. As to prognosis, men may go on for fifteen years working fairly hard. As in recurrent laryngeal, the voice might not be affected at all in abductor paralysis.

Dr. Drysdale was pleased to hear that aneurism was probably syphilitic in origin. If so it might, of course, be prevented if people would be careful.

Dr. Redmond said he entirely agreed with Dr. Murray, that syphilis was the great cause of aneurism. He did not think that one hundred and forty five cases in ten years was very great. The laxity of the syphilitic memory was remarkable. Zeissl said that many cases get syphilis without knowing it, and this was quite true.

Dr. Carlisle had seen few cases of thoracic aneurism, and could not help thinking it must have something to do with occupation.

Dr. Lane did not see fifty cases of aneurism for twenty years, and this was hardly compatible with syphilitic causation. He also thought that employment must have something to do with its causation.

Sir D. Duckworth thanked Dr. Drummond for his lucid paper. With regard to syphilitic contagion, he thought occupation must have something to do with it. It was common in the army and rare in the sailor. The incidence of syphilis would probably be equal by land and sea. Syphilis was one of the destroyers of the nervous system—plus heavy dress and strain. Sailors were alcoholic and syphilitic, certainly. Gairdner said that in autopsies of aneurism there was usually no other lesions to be found. Thirty-nine or forty would be the usual age of aneurism, which also favored the idea of syphilis.

Dr. Valentine had been thirty years in India, and had made inquiries concerning syphilis. He had not seen twelve cases of thoracic aneurism, although there was a great deal of syphilis among his patients.

Dr. Ord said he was much interested in the palsy of the laryngeal nerve. Loss of phonation took place when the paralyzed cord fell back. Syphilis, he thought, took a very prominent part in the history of this disease. Iodide of potassium was a good palliative. Ergot of rye, it was thought, might cause contraction of the vessel. It came out quite clearly that the bulk of the aneurism, after taking ergot, was diminished. He gave twenty drops of liquid extract, and in twenty minutes the effect was produced by a diminution of blood-pressure.

The Cool Bath in Typhoid Fever.—Dr. Redmond read a paper on the cool-bath treatment of enteric fever. Dr. Currie, of Liverpool, had first of all introduced it. It was a prophylactic, rather than a curative, agent. The great danger in typhoid was pyrexia. The bath brought down temperature one to four degrees. Many patients (said Broadbent) recovered if cool baths were used at the onset of the disease. Dr. Taylor gave good evidence also, as also Trousseau. He advises all persons to try it in difficult cases. Dr. F. W. Hare had published 1,175 consecutive cases. In 1889 he said the clinical evidence in its favor was overwhelming. Dr. Cayley also gave evidences in its favor. Dr. S. Coupland was the last who had written in favor of it. When 102° F. is reached it should at once be used, if there was no hemorrhage. A bath of ten or fifteen minutes should be given, and repeated frequently. In some cases a tepid bath at 87° F., as long as the patient could bear it. A warm or tepid bath morning and evening was excellent practice. The bath first diminished the fever, the patient slept in the bath, and stupor disappeared, and he took cognizance of what was going on around him. Dr. Hare had only sixty per cent. of delirium. Sordes of the lips was rarely seen. A distinct diuretic action was made on the kidney. The statistics of expectation were not so good. In Germany 400 cases had been treated without one fatality. Brand had given bath statistics, three to four per cent. In England these statements had not been accepted. Dr. Hare's statistics confirmed those of Brand. He said 7.48 per cent. was the mortality in baths, and fourteen in expectation. Baths prevented pneumonia and typhoid symptoms. The labors and expenses was the great difficulty. Some patients and the general public had a great dread of baths. As to contra-indications, there was peritonitis and albuminuria. There was no other contra-indication. He, the writer, gave only four cases. Dr. Barr kept his patients continuously in the bath of 96° if the temperature was over 100° F.

Dr. Orr much approved of the cool-bath practice, and had been accustomed to put the patient into a bath of 90°. Was rather of the opinion that it was not merely a way of extracting heat. A corpse was found much less affected than a living body. It soothed the nerves which caused the hyperpyrexia.

Third Day, Friday, August 4th.

Dr. W. Ord, President of Section, in the Chair.

Railway Spine.—Dr. Byron Bramwell, of Edinburgh, opened a discussion on "Concussion of the Spine." He proceeded to read an abstract of the paper. There had been a great discussion as to the frequency of this lesion. These differences were too often argued out in our law courts. In the first place. the term concussion of the spinal cord must be clearly defined. A man in a railway collision, among many other symptoms, might suffer from pain in the back. In many such cases there was no concussion of the spinal cord. In the case of a hunter who fell off his horse, there was much pain in the spine, but no clear nervous symptom. It was therefore important to distinguish between concussion of the spine and cord. There were cases in which there was dislocation of the vertebræ. In some there was a hemorrhage into the cord. In some cases undoubted symptoms of organic disease of the cord followed. He had seen cases of undoubted pachymeningitis, locomotor ataxia, etc., which he was convinced had been caused by blows on the back or buttocks. After a railway accident we would naturally expect to have a certain number of such cases. True concussion of the spinal cord was common among colliers, from fall of coal on the back, or even fracture of the spine. Such patients either died or remained partially paralyzed. The retention of the urine lasted, after railway accidents, for some days or weeks. Such cases were common in colliery practice. Concussion of the spinal cord should apparently lead to organic disease; but such was very rarely the case. The tendency of modern legislation was to compensate persons for injuries which did not arise from their own carelessness; and doubtless such cases would soon become far more prevalent than they are at present. In many cases of railway accidents, the symptoms were rather cerebral than spinal. The symptoms were also rather subjective than objective. Changes in the fundus oculi were said to occur after railway accidents. The optic disk was said sometimes to be altered in appearance. In his experience this did not occur. Guards of railways rarely suffered from such diseases, and they were not found in persons who were severely injured. Many such patients recovered very slowly indeed. Sometimes there was permanent injury. It had been said that railway acci-

dents occasionally called forth myelitis or meningitis. He thought the symptoms were rather functional, and of the nature of hysteria or neurasthenia. Chronic spinal meningitis was uncommon in civil practice after injuries, and the diagnosis was very difficult in such cases. This rarely occurred in pitmen after accidents. Chronic cerebro spinal meningitis was a very rare disease. All admitted that spinal meningitis was often associated with cerebral meningitis. Electricity was a valuable assistance in diagnosis; but there were few cases in which it gave any positive results.

Dr. Brookhouse said it had occurred to him that the term spinal concussion was misleading. The simulation of symptoms of concussion was very simple. Concussion of the cord might cause either slight or severe symptoms. In cerebral cases it was possible to come to a conclusion; but in spinal cases it was nothing of the kind, as the symptoms were chiefly subjective. One patient got thinner, he had irregularity of the pupils, impaired hearing—this was a most uncertain symptom. Incontinence of urine coming on late in the case. Spinal tenderness. Urine of low specific gravity. The above symptoms were all subjective. On examination of his eyes the patient was so confused that it was clear the gentleman was cheating him. Dr. Brookhouse gave a very hostile report. For more than twenty years he had been medical officer of one of the largest railways. This patient was a rogue.

Dr. Alexander Robertson said that in a prognostic point of view, the existence of a given case of ankle-clonus was no sign of danger as to the utility of the limb. One patient who had a degree of ankle-clonus had walked sixty miles in one day. Hence the presence of these symptoms did not much damage the patient. A gentleman with absence of knee-jerk had just walked ten miles. Each case should be treated as a whole, no one symptom should be relied upon, and caution should be taken not to form too gloomy a prognosis on such cases.

Mr. Purey had been acting in Liverpool for twenty-five years for the Northwestern Railway. During that time he had only seen one case of death from injury to the spinal cord after a railway accident. This patient, a gentleman, was also tuberculous. About six months after he was perfectly paraplegic. He concluded that there had been some slight hemorrhage into the cord.

Dr. Bramwell justly was sceptical as to the existence of concussion of the cord. Probably hemorrhage was the real cause of such symptoms when it did occur. Ten years ago he had seen traumatic hysteria in a man who was supposed to have concussion of the spine.

Professor Clifford Allbutt said that in Leeds there had been a great number of railway accidents. Did not understand the meaning of concussion of the spine. Chronic muscular atrophy sometimes occurred. Next were cases of hysteria, and lastly ninety-nine of one hundred of the cases were nonsensical. Medical men connected with railways ought to go into the witness-box. Electricity was a most uncertain method of investigation. It was much against the medical man in court. He regarded atrophic condition of the optic nerve as possible, but it must not be made too much of. Hysteria was as bad a disease as any he knew.

Dr. Buzzard said that in ordinary accidents there was some hemorrhage. In no railway accident had he seen sclerosis of the cord. There was so much simulation in railway cases that he had declined seeing them. A patient complained of loss of sensation of one side. This really existed. The patient had some muscular atrophy and loss of knee-jerk. He had never seen optic atrophy after a railway accident. He had seen a case of catarrh after a blow on the head. Electrical tests were very untrustworthy and difficult.

Dr. Gordon thought that railway companies would do well if they would furnish a verbatim account of the trial. All medical men in court would do well to speak in court as they would in a medical society.

Dr. William Walker had had some experience in railway accidents. He had always appeared for his patients, and had found that in almost every railway accidents there were subjective symptoms. His present belief was that we must be very careful in accepting the statements of the patients. Out of his twenty all recovered. A medical officer of the Caledonian Railway had agreed that there were very few cases of gravity. Shock did a good deal of harm in some cases.

Dr. Saundby had been consulted by the railway companies, and had seen a certain number of such cases. Concussion of the spine was not a good title for the commencement of the discussion. A woman had anæsthesia of one side of the body. He referred to the difficulty of medical evidence. Dr. Gordon had truly said that the medical man in court should speak as if he was speaking before his medical contemporaries. His opinion was that railway companies did not at all try to bias the practitioners. One or two persons had died after railway accidents. He doubted that patients ever died after railway shocks. He had never met with muscular atrophy in such cases. He never employed electricity. Had never seen any change in the fundus oculi. He thought examinations of the patients should be brief.

Mr. Noble Smith had had many cases of accidents occurring to the spine, and had rarely seen such in railway accidents. In none of the cases he treated had there been death. Railway accidents were more sudden than others. A nobleman was thrown off his horse and had a shock on his feet. There seemed to have been slight dislocation in this case of the lower vertebræ. In a railway accident, after the shock, continuing the journey might do harm. Some cruel cases occurred where there had been protrusion of the vertebræ, and the patient was said to be merely hysterical. He cited such a case in a lady.

Dr. Eddison thought it hard that concussion of the spine should be objected to in the title of this paper. The real secret of the rarity of such accidents now was the invention of brakes. He had been in the Childwick accident. He had not been very ill after it, but had been affected. There were cases when a man gets tired and ill. The name concussion was not a bad one. Concussion was a shock carried to the nerve-cells. He did not see that railway companies had a right to make people hysterical.

Dr. Barnes had been spending the day in Edinburgh, and was in a severe accident near Lockerby. He felt much shaken after the accident. He became extremely emotional. He could not remember his friend's name, and used wrong names. He had no physical injury, but since then he had been well. There was in this case a shock of the brain from concussion.

Dr. Byron Bramwell said he admitted the term concussion of the spine was a wrong one, and this he agreed with. He had been anxious to let the lawyers know what they were talking about. Mr. Erichsen's work used the title concussion of the spine. The result of the discussion had shown that a certain amount of agreement existed among all persons of experience in this matter.

Dr. Clifford Allbutt moved that this Section recommend to the profession that, in all cases of disputed actions in court, it was expedient that the medical men on both sides should consult together before giving their evidence. This resolution was put to the meeting and accepted. A vote of thanks to Dr. Ord for his attention to the affairs of the Medical Section was proposed by Dr. C. R. Drysdale, seconded by Dr. Eddison, and carried by acclamation, and the President gratefully acknowledged the compliment. The meeting then adjourned.

SECTION OF OBSTETRICS, MEDICINE, AND GYNECOLOGY.

First Day, Wednesday, August 2d.

President's Address.—Dr. Murphy (President), in the course of a short introductory address, said that the three matters of greatest importance in obstetrics were: Ob-

struction of labor from position of child or narrowing of pelvis; post-partum hemorrhages; puerperal convulsions.

As regarded convulsions, he considered the best treatment to be the administration of chloroform followed by rapid emptying of the uterus; but even this left much to be desired. In the treatment of post-partum hemorrhage he considered that most reliance should be placed on pressure of the uterus by the hand. The mortality of placenta prævia had been much reduced, and in his own hands had been four per cent.; the treatment he adopted being to bring on premature labor, and not leave the patient until delivery was complete. In slight narrowing of the pelvis he preferred Tarnier's axis traction forceps to any other.

He considered that with the introduction of symphyseotomy and the reduction of the mortality of Porro's operation and Cæsarean section, the performance of craniotomy on the living child should never be required. He referred to the operative treatment of cancer and the importance of diagnosing it in the earlier stages, and said that in his opinion little reliance could be placed on the microscope as an aid in diagnosis.

As regards the treatment of fibroid tumors, he noted that in this country they were usually treated through an abdominal incision, but in France through the vagina by "morcellement." The discussion as to the relative value of the intra- and extra-peritoneal methods of treating the pedicle was still going on, but the balance of opinion seemed to be in favor of intra-peritoneal treatment. He thought that there was a tendency to neglect the minor gynecological operations, the most important of which he considered to be curetting, trachelorraphy, and perineorraphy. Curetting should be done thoroughly, the cervix having been previously dilated, and at the same time lacerations of the os should often be treated by trachelorraphy. For ruptures of the perineum he considered the flap-splitting operation by Tait's method by far the best.

Treatment of Diseases of the Uterine Appendages.—Dr Pozzi, of Paris, in opening a discussion on the "Conservative Treatment of Diseases of the Uterine Appendages," said treatment of the uterine mucous membrane was sometimes necessary in the early stages of disease of the appendages. This might be carried out, (*a*) by curetting, (*b*) cautery, (*c*) electricity in diseases of the uterine appendages. Massage was useful in a few chronic cases, but dangerous in cystic salpingitis and acute salpingitis. Electric currents only were applicable to chronic cases and acted principally on the neuralgic manifestations; used weak currents only. The operation of incising and evacuating cystic tubes was dangerous and not to be advised, because the tubes would fill up again. Conservative operations were most applicable to the ovaries.

The evolution of surgery tended to conservatism. Partial operations have been principally advised that fecundity might be preserved. They might be carried out when (*a*) there was disease of tube with ovary intact; (*b*) disease of ovary with tube intact. (*a*) Treated by salpingostomy; (*b*) treated by resection of ovary.

He had no faith in operations which aimed at restoring the function of the Fallopian tube, as he considered that the tube, when once it had been attacked by inflammation, would never resume its functions, because it was not a milk duct, and the exercise of its function depended on its contractile fibres and ciliated epithelium remaining healthy. He would eliminate partial resection of tubes from the conservative operations; he would practise and limit conservative surgery to the ovary only. He had found that partial resection of the ovary did not interfere with either menstruation or fertility. As a general rule, when the tube was healthy and the ovary injured he endeavored to preserve the healthy part of the ovary.

A typical case for this operation was an isolated dermoid cyst. The permeability of the tube must be proved by passing a stylet down from the abdominal end to the uterus. In cases in which the tube was likely to form adhesions he sutured the fimbriated extremity to the ovary—an operation which he would call salpingorraphy.

He has performed resection of the ovary six times, and ignipuncture of multiple small ovarian cysts in eight cases; all the patients recovered easily and were relieved by the operation; the menstrual flux has returned in each case, and one has subsequently become pregnant. The principal symptom before the operation was pain, worse at the period, and this has disappeared. In three cases he had performed hysteropexy; in addition, in five out of the six cases he had completely removed the appendages on one side, and resected the ovary on the other.

Dr. More Madden, of Dublin, thought it possible to pass a catheter from the uterus along the Fallopian tube, and so relieve a distention of the tube, and was accustomed to treat accumulations in the tube by tapping per rectum.

Dr. Sloan, of Glasgow, acknowledged himself a gynecological physician, and thought that the pendulum was now swinging back toward the medical treatment of many cases of disease of the appendages. Surgery or medicine in these cases was largely a question of diagnosis, and he thought that the surgeons troubled too little about diagnosis; but medical treatment if applied should be thoroughly carried out, which it frequently was not.

Dr. Fancourt Barnes, of London, said that catheterization of the tubes could not be carried out, as one could never be certain that the catheter had passed into the tube; he pointed to the impossibility in many cases of making a diagnosis before the abdomen was opened.

It was not always possible to remove the appendages after opening the abdomen, but he had seen good results from breaking down adhesions with the finger where removal was impossible.

Dr. Bell, of Glasgow, advocated curetting in many of these cases and ichthyol tampons. And in cases where operation became necessary would remove both ovaries completely.

Dr. Smyly, of Dublin, thought that diagnosis was not sufficiently studied, and that the treatment of early cases by curetting the uterus was good. Massage was good in cases of adhesions, especially Schultz's method without opening abdomen. It was difficult to tell what was healthy and what unhealthy, even when between the fingers; but healthy tissue should always be left.

Dr. Aust Lawrence, of Bristol, dwelt on the difficulty of diagnosis in cases of disease of the appendages, but if fluid was present would open the abdomen. He found the faradic current do good, urged the importance of rest in bed, and the impossibility of carrying out proper non-operative treatment in the poor.

Dr. Murdoch Cameron, of Glasgow, had found faradic current invaluable in cases of chronic ovaritis. He was opposed to resection of the tube and to removal of the sound ovary in oophorectomy, had no faith in the possibility of passing a catheter along the Fallopian tube.

Dr. Brewis, of Edinburgh, urged the impossibility of diagnosing the condition of the appendages before opening the abdomen. He thought tapping cysts per rectum bad treatment.

Mr. John W. Taylor, F.R.C.S., of Birmingham, noted that Dr. Pozzi had performed hysteropexy in some of the cases, and questioned how far that had produced the good effect by lifting up the ovary from its prolapsed position. He had found curetting sometimes dangerous, and had seen cases followed by pyosalpinx; in these cases there was probably some antecedent gonorrhœal salpingitis; as an example of conservative surgery he mentioned the enucleation and removal of a broad ligament cyst without interfering with ovary or tube, which he had often practised.

Dr. Cullingworth, of London, considered all conservative operations on the tubes as utterly useless, but when applied to the ovaries they were useful, as it was important, if possible, to preserve some ovarian tissue. He thought the sentimental reason a strong one, as a woman, especially if young, who was not menstruating

was apt to consider herself as unlike other women. He asked Dr. Pozzi whether he considered that small cysts studded over the ovary needed treatment. He considered the proposal to suture the fimbriated extremity of tube to ovary a valuable one.

Sir Spencer Wells (Bart.), of London, said, where one ovary was sound he would remove the whole of the diseased one. He considered tapping per rectum bad, and thought that all had seen cases in which removal of the appendages had been advised by gynecologists, and yet, although the operation had never been performed, the patients had got quite well. He asked Dr. Pozzi how far he considered that one might leave ovaries studded with small cysts, which he regarded as Graafian follicles; he had often left them after puncturing them, with good results.

Dr. Heywood Smith, of London, considered that the prognosis and treatment advised must differ in the rich and the poor. When one ovary was diseased he would remove both. He thought that treatment by faradic current gave temporary relief only.

Professor Pozzi, in reply, considered catheterization of Fallopian tubes usually impossible and always dangerous, and tapping per rectum very dangerous. Opening the abdomen was always a grave operation, and one not to be undertaken lightly. He thought when adhesions had been separated they were very apt to form again, and considered a weak current of electricity good for neuralgic pains, but that it could not cause absorption of effusions. He had known curetting in acute cases to be the cause of a pyosalpinx, and thought fingers much more important than eyes in detecting disease of ovaries after opening abdomen. One could feel small cysts even when in interior of ovary. Laparotomy was hardly ever necessary in cases where there were no physical signs, but sometimes it had to be done on the indication of symptoms only.

On the motion of Sir Spencer Wells, seconded by Dr. Robert Barnes, a hearty vote of thanks was passed to Professor Pozzi with acclamation.

Lithotomy in Women.—Dr. Fancourt Barnes, of London, then read a paper on "A Case of Lithotomy in the Female Bladder." Of the three methods available in the treatment of vesical calculus in the female, viz., supra pubic or vaginal lithotomy, or dilatation of the urethra, he preferred vaginal incision. Dilatation of the urethra may be followed by incontinence of urine, which is a condition defying treatment. After vaginal incision a fistula sometimes follows, but this may be cured by a subsequent operation.

Dr. Aust Lawrence had operated on three cases by the vaginal method. He considered that if the urethra was incised instead of dilated, there was less liability to subsequent incontinence.

Dr. Purslow, of Birmingham, read a paper on "The Treatment of Retroversion of the Gravid Uterus." After referring to the literature of the subject, he narrated six cases which had come under his treatment at the Queen's Hospital, Birmingham, in the last twelve months, and urged strongly the advantage of the genu-pectoral position over the administration of chloroform, and the importance of avoiding hasty endeavors to procure replacement.

Dr. Heywood Smith agreed as to the importance of avoiding chloroform if possible, as without an anæsthetic there was much less liability to use too great violence, as the amount of pain was an indication of what might be safely used.

Dr. Aust Lawrence also agreed in the avoidance of haste. Practically the only danger lay in the distention of the bladder, and if this was emptied regularly little harm resulted.

(To be continued)

An Epidemic of Suicide has prevailed in Buda-Pesth and other Hungarian towns lately. In Buda-Pesth alone seven suicides occurred in one day a few weeks ago. The number of cases of insanity is also said to be increasing so rapidly that the hospitals and asylums are crowded.

Correspondence.

MEDICAL STUDY IN EDINBURGH.

To the Editor of the Medical Record

Sir: It occurred to me that many of your readers would be interested to know something of the opportunities for post-graduate study afforded during the spring and summer months in Edinburgh.

The practising physician residing in New York, or any of our large cities, finds his time during the greater part of the year so entirely consumed by the demands of private and hospital practice, that little or no opportunity occurs for reviewing favorite subjects or pursuing studies which do not come within the immediate compass of his special line of work. The necessity for occasional review and study is, I believe, experienced by all who would keep abreast of the times and who wish to continue to be familiar with the constant advance of science. This work, therefore, must be undertaken during the vacation, which it is very generally the custom of the physician to take during the summer, and although our own post-graduate schools offer now as good, if not better, facilities than many of the medical centres of the Old World, still the excessive heat during the summer months prevents many from availing themselves of the opportunities offered at home.

This is especially true if one wishes to pursue the study of anatomy, and it was this circumstance which induced the writer to visit the city of Edinburgh; which, in addition to its opportunities for scientific study, offers as a further inducement, a delightfully cool summer climate, many points of historic interest both in and about the city, and an easy access to the magnificent scenery of the Scottish Highlands

Edinburgh has long been noted for its medical schools. The medical department of the University of Edinburgh, founded in 1705, has, ever since that time enjoyed the reputation of being one of the most thorough and practical institutions for medical education in the United Kingdom.

The Edinburgh School of Medicine and Surgery is even older than the University, and has long maintained an excellent standard of medical teaching. Between these two schools there exists a friendly and healthy rivalry, which conduces to the maintenance of the high standard of each.

The summer sessions begin about May 1st and continue until the last of July. During this time many excellent practical courses are given by the different instructors, which can, with much profit, be taken by visiting students or graduates. The Royal Infirmary, one of the largest and best-equipped hospitals in Great Britain, is situated on Lauriston Place, immediately opposite the University buildings. It is built on the pavilion plan and is divided into eight blocks containing thirty-four large wards. Of these eighteen are for surgical and twelve for medical patients; two are devoted to venereal cases, and one is reserved for laparotomies. There are also recently added wards for patients suffering from diseases of the eye, ear, throat, and skin.

The consulting and visiting staff of this institution is composed of forty-five of Edinburgh's most distinguished men, including, on the medical side, Professor Grainger Stewart, Professor Alexander R. Simpson, Drs. John Wyllie, Andrew Smart, and Alexander James. Among the list of surgeons are found the names of Mr. John Bell, Mr. John Chiene, Mr. Thomas Annandale, and Mr. John Duncan.

It has been my privilege during the past month to attend many of the clinics and diagnosis classes given at the Infirmary by different members of the two medical faculties, and I have been most favorably impressed with the painstaking, care, and apparent enthusiasm with which the instructors demonstrate and impress upon the students the salient points to be remembered in each individual case.

This is especially true in the medical department, where the student is constantly referred to his knowledge of anatomy, physiology, and pathology, so admirably taught in other departments of the University, and the practical application shown.

I was especially fortunate in being able frequently to attend the diagnosis class conducted by Dr. Alexander James, which is deservedly popular among the students of both schools. His method of teaching is clear, forcible, and thorough. An hour is frequently consumed in the examination of a single case; but the time is well employed, and no student or practitioner who is fortunate enough to be present leaves without some new idea or useful suggestion.

Owing to the immense amount of material furnished by the Infirmary, the instruction in clinical surgery is never lacking in illustration. The chair in surgery in the University is held by Mr. John Chiene, whose success as a teacher and skill as an operator have won for him a high rank in the estimation of the medical fraternity.

It is a lamentable fact, however, that with one, or possibly two exceptions, the surgeons of Edinburgh utterly fail to appreciate the advantages to be gained by the application of the modern aseptic and antiseptic methods of wound treatment now so generally practised by surgeons throughout the civilized world; or if they appreciate the advantages, fail to give their patients the benefit of them. It is true that they employ antiseptic solutions for cleansing the wounds, and occasionally a part is scrubbed before operation. The surgeon usually washes his hands, and as frequently wipes them on any towel which happens to be near. The assistants rarely take this precaution, and the nurses never (in public).

I witnessed a shoulder-joint amputation before the class by Edinburgh's most distinguished professor of clinical surgery. Neither the surgeon nor any of his assistants wore anything other than their ordinary garments. The hands may have been disinfected before the operation, but certainly nothing further was done during this or the following operation to overcome the contamination necessarily incident to the free handling of soiled towels, wooden chairs, tables, instrument-cases, woollen blankets, and various other articles about the amphitheatre and contained in the pockets of the operator and his assistants.

In the midst of the operation the surgeon takes a spectacle-case from his coat-pocket, removes his glasses, places them in position, and resumes his work without even immersing his fingers in any of the antiseptic solutions which are everywhere present. The drainage-tube which is employed is passed through at least two pairs of septic fingers, and has been in contact with the hair and coat-collar of the operator. These are but a few of the many sources of infection which I noticed in one short operation, and I believe it to be a fair example of most of the surgery to be seen at the Infirmary.

On one occasion, however, I was much encouraged by seeing an operator and his house-surgeon in clean linen gowns, with sleeves rolled up, and with apparently clean hands. The operation was for the removal of a foreign body from the knee-joint, and as the patient's leg had been thoroughly scrubbed and was surrounded by towels wet in some antiseptic solution, it seemed that the operation was to be conducted as such operations are in our own hospitals by our own careful surgeons. About the middle of the operation, however, the assistant whose duty it was to look after the instruments and prepare the ligatures and sutures, came into the amphitheatre with a crowd of students from above, descended the stairs, jumped over the rail into the arena, and immediately began to perform his duties without washing his hands, or even dipping them into a solution which was easily within reach. The surgeon called for a gut suture to unite the capsule of the joint before closing the wound. The young man threaded a needle, and not at once finding a pair of scissors to cut the gut, plunged his hands into a pocket, withdrew a pair of scissors, divided the suture, and then, as if to remove any possibility of its remaining clean, drew its whole length between his more than septic thumb and forefinger. That suture, and many others prepared in the same manner were used, and that without a word of censure from the surgeon, who was obliged to witness all while he waited for the needle. The dressing which was placed next the wound was handled by two nurses, neither of whom had taken the slightest precaution to disinfect their hands.

It indeed seems strange that in one of the greatest medical centres of Great Britain, where medical education is supposed to be on a plane far above that of most nations, and at a time when the knowledge of the methods employed in the practice of aseptic and antiseptic surgery is so generally disseminated, that such examples of gross carelessness should be constantly before the eyes of the thousands of students who annually seek in Edinburgh the instruction which is to qualify them to practise the healing art.

In fairness it should be said that in the writer's opinion the above is the only point in the system of medical instruction at the University of Edinburgh that can be justly criticised; the theoretical instruction is excellent, and the opportunities for individual laboratory work in chemistry, physiology, histology, and pathology leave little to be desired.

The department, however, which has contributed most to the reputation of the University is undoubtedly that of anatomy. This is due both to the excellent system of teaching and to the skill of the individual instructors.

For nearly thirty years the department has been under the immediate charge of that distinguished scholar and able anatomist, Sir William Turner, whose well-known contributions to the literature of the subject have gained for him a place in the foremost rank of the world's authorities.

Dr. David Hepburn, the senior demonstrator, to whom much of the personal instruction is entrusted, possesses a rare gift in his ability to impart the knowledge of dry and uninteresting anatomical facts in a manner which interests the student, and at the same time fixes the fact firmly in his memory.

In his daily demonstrations he employs recent dissections and black-board drawing. In the latter he is particularly clever, and with a few colored crayons is able to reproduce the anatomical picture, which is often too indistinctly seen in the dissection, with a distinctness and accuracy of detail which renders it strikingly clear.

As a substantial aid to dissectors, the University has a wonderfully fine collection of carefully dissected parts, embedded in cement, preserved in alcohol, and contained in hermetically sealed glass-cases These are conveniently arranged on a gallery in the dissecting-room, with explanatory diagrams. The collection numbers nearly one hundred dissections, and illustrates in the best possible manner the appearances which a well-conducted and careful dissection should reveal.

It is because my brief stay in Edinburgh has been so enjoyable that I venture to send these lines to your journal in the hope that they may meet the eyes of others who are desirous of passing their vacation in the same way. If one has two or more months at his disposal I know of no city in which a medical man can pass a more delightful or profitable season. It is a pleasure also to record with what marked kindness and courtesy a foreigner is treated by all connected with the medical schools or hospitals.

Very truly,

GEORGE EMERSON BREWER.

EDINBURGH, SCOTLAND, July 22, 1893.

The University of Wales.—The Charter of the University of Wales has been published and has been laid before Parliament. Degrees are to be given in arts, science, law, and music; but the Charter confers no power to admit to any degree in medicine or surgery.

ELECTROCUTION.

To the Editor of the Medical Record.

Sir: Horrible as are the accounts detailed in the newspapers of this country of the lynchings, murders, homicides, and suicides that seem daily to occur, none, to my mind, are so revolting as those lately given of the electrocution of a murderer in Auburn State Prison.

Science is said to be the handmaid of progress, but when applied, or rather misapplied, to the execution of criminals, I hold that it is degraded from its high position and is made, by the publication of its horrid details, a means of pandering to morbid curiosity, and leads to the demoralization of the masses.

The death penalty is meant to be deterrent and punitive, but not to be the means of suffering to the criminal. Electrocution it was thought would secure these ends, but evidently it has not done so. It has not prevented crime, and can scarcely be said to have punished it when the victim is made the subject of pity and becomes almost a hero by his sufferings; and it has not been more certain, or more swift, or humane in its ghastly service than the means generally made use of in the other States of this great Union and in other countries.

When an individual has outraged humanity from motives of jealousy or revenge, no punishment that he may receive will deter others from committing a similar offence, and he is not punished by death, for fear of his own death does not enter into his calculations at all, indeed in most cases he attempts to take, and often succeeds in taking, his own life. For such persons imprisonment for life is a life-long punishment, and gives time for reflection and repentance; but when a man or woman commits murder as a sequence to the lust of the eye or of the flesh, when, as often occurs, it is committed while the victims are asleep or in the dead of night, in order to obtain possession of their goods, or they daily poison friends and relatives for the sake of their money, or he murders his violated victim, I think that electrocution or the guillotine is too refined a punishment. The murderer has committed a cold-blooded crime, he has had time to reflect on the consequences of his act and has deliberately chosen his part, and should be made, after a certain time given him for reflection, to expiate his offence by a disgraceful death. Like a brute he has lived and like a brute should he die—not in an elegant chair surrounded by men of science and literature, but on the gallows, in silence and obscurity. Such a punishment may act as a deterrent, not the glorification of an electrocution.

That the punishment of death may, with due precaution, be carried into effect by hanging, is a fact within my own experience; for some years ago I had, as surgeon to a gaol, to attend on and witness the execution of a Hindoo, who had in a fit of jealousy murdered his paramour. He had, immediately after killing her, cut his own throat, or rather trachea, which wound had not healed when he came under my care. I attempted to close it before his execution, but found that through long disuse of his larynx the closure of the wound so nearly caused asphyxia that I was obliged to desist. Time pressed, and notwithstanding my appeal for more time to the authorities, the execution was ordered to take place immediately, so that he was led to the scaffold still breathing through the aperture. He was a thin, wasted man, weighing only about one hundred and twenty pounds, but his death was immediate, and on dissection I found that the odontoid process of the atlas was fractured and pressed on the medulla. He died free from pain, and as scientifically as any one could desire.

Let the rope be applied by a skilled executioner, with half the precautions necessary in electrocutions, and the murderer will meet his doom. He will die the death of a brute, but not brutally, and the published verdict of a coroner's jury will be sufficient to assure the public that the majesty of the law has been vindicated. In the name of science and in the cause of humanity I, as a stranger and an admirer of your country and its institutions, plead that this electrocution be abolished; but if the Gerry law is like that of the Medes and Persians, let due care be taken that it should be executed under the supervision of medical electro experts, and with a perfect apparatus, so that no more such painful and demoralizing scenes may again occur.

I am, sir, yours sincerely,

James Cecil Phillippo, M.D.

Jamaica, W. I.

THE RECRUDESCENCE OF LEPROSY AND ITS CAUSATION.

To the Editor of the Medical Record.

Sir: I am indebted to your courtesy for a copy of the Medical Record containing a notice of my recent volume on leprosy and vaccination. Your critic takes me to task pretty severely for daring to question the utility and safety of vaccination, and, while admitting that reliance may be placed upon the facts I have for the first time brought together, characterizes my volume as "one of the most curious freaks of modern times," and is of opinion that my conclusions "are not to be trusted in the slightest degree." As the readers of the Medical Record would scarcely comprehend the scope and purport of my volume from your brief review, I shall be glad if you will kindly allow me a short space to state what these are. As the facts and statistics showing the serious increase and wide distribution of leprosy are allowed by your critic to be reliable, I will merely quote one authority on this part of my case, that of the late Sir Morell Mackenzie, who said in an article entitled "The Dreadful Revival of Leprosy," which appeared in the *Nineteenth Century* for December, 1889, after referring to its diffusion in Europe and America: "In almost every other quarter of the globe leprosy is rife at present, and wherever it exists it seems to be slowly but surely extending its ravages. It is impossible to estimate even approximately the total number of lepers now dying by inches throughout the world, but it is certain they must be counted by millions. It cannot be comforting to the pride of England—the august Mother of Nations—to reflect that a very large portion of these wretched sufferers is to be found amongst her own subjects."

To the question of causation I have devoted my chief attention, and besides communicating with superintendents of leper asylums, eminent dermatologists, and others, I have made personal inquiries where leprosy prevails in all parts of the world. I have carefully examined the evidence for all the alleged factors, such as heredity, contagion, insanitation, syphilitic cachexia, a fish diet, malaria, etc., and have quoted what the most eminent authorities have to say thereupon. All these factors, allow me to observe, have been in existence for centuries, and do not account for the recent alarming recrudescence of the disease. Upon each of them there is considerable divergence of medical opinion, as I have shown. What one authority affirms, another denies, and the investigator, however patient he may be, is left in a state of hopeless bewilderment. There is, however, one cause upon which, in all the countries I have visited, there is no such confusion, but a nearly unanimous consensus of intelligent opinion—I mean inoculation. About forty pages of testimonies and experiences are given under this head, which include those of the leading medical journals and some of the most eminent pathologists, lepra specialists, and hospital physicians in all countries. As accidental inoculation is not of sufficient frequency to account for so large a development of the disease, it follows that there must be some other cause, and that of an innovating character or a comparatively new departure. This cause, I maintain, is vaccination, which is the only form of inoculation generally practised, and meets the case at all points.

Vaccination is admitted, though with reluctance and sometimes with apology by the highest authorities, to be

capable of transmitting and aiding the ravages of this much-dreaded disease. The authorities on this part of my case include Sir Erasmus Wilson, the father of dermatologists; Dr. John D. Hillis, formerly Superintendent of the Leper Asylum, British Guiana; Dr. Liveing, Sir Ranald Martin, Professor W. T. Gardner, of Glasgow; Dr. Tilbury Fox, Sir Gavin Milroy, Dr. R. H. Bakewell, formerly Vaccinator-General, Trinidad; Dr. A. S. Black, Trinidad; the eminent bacteriologist, Dr. Edward Arning, Hamburg; Professor H. G Piffard, New York; Dr. Walter Gibson, late President Board of Health, Hawaii; Dr. Blanc, Professor of Dermatology, New Orleans; Dr. Sidney Bourne Swift, late Medical Director Leper Settlement. Molokai, Hawaii; Dr. P. Hellat, St. Petersburg; Professor Henri Leloir, Lille; Surgeon Brunt, Dr. John Freeland, Government Medical Officer, Antigua; Dr. S. P. Impey, Superintendent Leper Settlement, Robben Island, Cape Colony; Dr. H. S. Orme, President State Board of Health, California, and many others.

For the first time there has been brought together some of the incriminating facts, comprising nearly one hundred pages of closely packed testimonies—nearly all medical—as to communication of leprosy by means of vaccination, and in addition I have given particulars of numerous cases of such communication, with chapter and verse, by the recording physicians.

The results of my investigations may be briefly summarized as follows:

1. That leprosy has greatly increased during the last half-century, and that it is prevalent in many places where it was formerly unknown.

2. That while the opinion of medical authorities and experts varies considerably on the subject of the contagiousness of leprosy, the preponderance of authority is in favor of the theory that it is not contagious in the ordinary sense of the term, but is communicable by means of a cut, sore, or abraded surface; and this view is confirmed by my own personal investigations.

3. That other alleged factors, such as malaria, a fish diet, syphilitic cachexia, heredity, and insanitation are admittedly unequal to explain the rapid growth of the disease in certain of our Crown colonies and dependencies, as well as in other countries.

4. That on one point there is much agreement, and hardly any dissent, namely, the inoculability of leprosy; and that the view of leprosy as an inoculable disease, while it is most clear to those who take the malady to be due to a bacillus, is older than the bacteriological evidence, and is not dependent thereon.

5. That the most frequent opportunities of inoculating the virus of leprosy are afforded in the practice of vaccine inoculation, which is the only inoculation that is habitual and imposed by law; and that the evidence here adduced is calculated to show that vaccination is a true cause of the diffusion of leprosy.

6. That the official information, collected by interrogatories and otherwise, has not been hitherto of a kind to show how far vaccination has determined the amount of leprosy in recent times; and that any interrogatories that may be sent out in future should not be limited to ascertaining the effects, as regards leprosy, of hypothetically "pure lymph." When on very rare occasions interrogatories have been submitted, they have been framed to ascertain the results of a purely hypothetical system of vaccination, which is not anywhere discoverable in practice (*i.e.*, with pure lymph and free from hereditary taint), and the replies are therefore futile and misleading.

7. That with the exception of two groups of cases—those adduced by Dr. Roger S. Chew, of Calcutta, and Dr. S. P. Impey, of Robben Island—those reported in this volume have not been the result of special investigations, but have cropped up accidentally in the course of medical practice, and in some instances have been published by practitioners with apologies to the profession for presenting such unwelcome disclosures.

8. That the increase of leprosy in the Sandwich Islands, the West Indies, the United States of Colombia, British Colombia, British Guiana, South Africa, and New Caledonia, has followed *pari passu* with the introduction and extension of vaccination, which in nearly all these places, without previous inquiry or demand from the inhabitants, has been made compulsory.

9. That as leprosy is a disease of slow incubation, often taking years to declare itself, and in its incipient stages can be detected only by practitioners of large experience, it follows that, in countries where leprosy exists, there is great danger of extending the disease by arm-to-arm vaccination.

10. Leprosy being one of the most loathsome diseases to which the human race is subject, and being practically incurable, it behooves all interested in the public well-being to do their best to prevent its diffusion, and, as a means thereto, to discourage the practice of vaccination on that ground, if on no other.

Trusting to your spirit of fairness for the insertion of this explanatory communication,

I am, yours faithfully,

WILLIAM TEBB.

DEVONSHIRE CLUB, ST. JAMES'S STREET, LONDON, S.W.,
July 29, 1893.

A NEW TREATMENT OF HÆMORRHOIDS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: Dr. Becelaere, in his article on a new treatment for hæmorrhoids, published in the MEDICAL RECORD of July 29th, recommends covering the part to be operated upon with collodion as a preparation for ignipuncture. Collodion "thoroughly solidified" he considers "a most sufficient means of avoiding the disagreeable effects of radiating heat."

As solidified collodion is simply gun-cotton, it is clear that the writer has not sufficiently considered the consequences of covering the anal region with a layer of this substance and then piercing through it with the thermocautery.

A. H. S.

NEW YORK, August 4, 1893.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending August 19, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	29	4
Scarlet fever	37	5
Cerebro-spinal meningitis	2	2
Measles	111	6
Diphtheria	93	26
Small-pox	0	0
Cholera	0	0
Varciella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

A Mexican Remedy for Typhus Fever.—Recent reports from Mexico state that a remedy for typhus fever has been found in jicama (dolichos tuberosus), a plant cultivated to some extent in the tropical regions of America. So many recoveries from the disease under domestic treatment by this plant have been reported, and so great is the popular interest in its alleged virtues, that the Mexican Medical Institute has now appointed a special commission to study the remedy, which is to be subjected to microscopic examination and chemical analysis, and with which experiments are to be made upon typhus patients. Jicama (pronounced Hee'camah) is a valerianic plant, indigenous it is said to New Holland, which is cul-

tivated in Mexico and the West Indies on account of its popular reputation as a valuable remedy in diseases of the chest and scabies.

The Wily Patient and the Credulous Physician.—The Dublin correspondent of the *Hospital Gazette* says that an old Government official presented himself at the consulting-room of one of the local practitioners and was told, after examination, that his liver was enlarged, his heart weak, and that his kidneys were degenerated to an alarming extent. He was advised to settle his affairs, as his time was short. This he proceeded to do, and made over, like Captain Cuttle, to the kind physician a policy of life insurance and an order for a small pension soon to fall due, the only condition being that he would see his patient over the Styx, pay the ferryman, etc. The end came, and the doctor having paid the funeral ex penses, etc., armed himself with a copy of the certificate of death, and proceeded with the policy to the insurance office. Alas, it had been dead for years! Only one hope remained, the arrears of pension, but this the victim of liver and nephritic disease had commuted some twelve months previously.

The International Congress of Hygiene and Demography.—The Emperor of Austria has accepted the office of Protector of the International Congress of Hygiene and Demography, which will be held in Buda-Pesth in 1894. The organizing and executive committees have now been formed and are in full work. The Congress will consist of two divisions, hygiene and demography. The General Secretary is Dr. Koloman Müller.

Mr. Bland Sutton has recently been awarded the Jacksonian Prize of the Royal College of Surgeons.

The First Medical Journal in Brazil was the *Propagador das Sciencias Medicas*, established by Dr. J. F. Sigand, in 1827. It lived but a little over one year. Three years later, Dr. Sigand started the *Semanario de Sande Publica*, of which three volumes appeared. Since that time some forty journals have been born in the country, but nearly all of them were doomed to an early demise. *O Brazil Medico*, the leading journal of Rio de Janeiro, was founded by Dr. A. A. de Azevedo Sodré, in 1887.

Salicylic Acid for Coryza.—Dr. J. A. Wegg, of Spanish Town, Jamaica, writes to the *British Medical Journal* that he has found that natural salicylic acid used as an errhine is a reliable agent in arresting a fresh-cold coryza. He has used it in his own cases in London, the United States, and Jamaica with uniform success. A few grammes, say two or three, of the salt, dry, are placed into an ordinary paper pill-box, in the cover of which three small holes are bored. Shake up the contents immediately before snuffing, and continue doing so until sternutation is produced. The process is to be repeated according to circumstances or the amount of hyperæmia of the nasal mucous membrane.

A Medical Congress in the United States of Colombia.—A National Medical Congress will meet in Bogotà, United States of Colombia, on October 12, 1893. The sessions, which will be held under the presidency of Dr. José M. Buendia, will continue for ten days. The subjects on the programme include the matters of general pathological and clinical interest at present most in debate in the medical world, but local color will be given by discussions on the climate of the country, its mineral waters, the poisonous reptiles which infest it, the parasites indigenous to it, etc.

How Not to Learn Italian.—The pedagogic editor of *The Lancet* advises intending visitors to the International Congress to brush up their Italian by studying Dante's "Purgatorio," a literal translation of which has recently been brought out in London. One might as well learn English from Spenser, or modern Greek through a pony on the "Iliad."

BOOKS RECEIVED.

A Text-Book of Medicine. By Adolf Strümpell, M.D. Second American Edition, translated from the second and third German editions, and revised from the sixth German edition, by H. F. Vickery, M.D., and P. C. Knapp, M.D., with Notes by F. C. Shattuck, M.D. Royal 8vo, 1,043 pages, illustrated. Price, $6.00. D. Appleton & Co., New York.

Transactions of the Fourteenth Annual Meeting of the American Laryngological Association, held at the City of Boston, June, 20–22, 1892. 8vo, 121 pages, illustrated. D. Appleton & Co., New York.

On Snake-poison, Its Action and Its Antidote. By A. Mueller, M.D. 8vo, 85 pages. L. Bruck, Sidney, N. S. W.

Transactions of the Southern Surgical and Gynecological Association. Vol. V. Fifth Session, held at Louisville, Ky., November, 16–18, 1892. 8vo, 434 pages.

Transactions of the American Associations of Obstetricians and Gynecologists. Vol. V., for the year 1892. 8vo, 529 pages.

The Treatment of Constitutional Syphilis. By Oswald Ziemssen, M.D. 8vo, 70 pages. H. K. Lewis, London. Price, 3*s*. 6*d*.

A Guide to the Study of Gynecology. By Marie J. Mergler, M.D. 8vo, 160 pages.

Hypnotism, Mesmerism, and the New Witchcraft By Ernest Hart. 12mo, 182 pages, illustrated. D. Appleton & Co., New York.

A Chapter on Cholera for Lay Readers: History, Symptoms, Prevention, and Treatment of the Disease. By Walter Vought, M.D. Small 12mo, 110 pages, illustrated. Price, 75 cents. The F. A. Davis Co., Philadelphia, Pa.

Public Papers of Roswell P. Flower, Governor. 1892. 8vo, 332 pages.

Weekly Abstract of Sanitary Reports Issued by the Supervising Surgeon-General, M. H. S., under the National Quarantine Act of April 29, 1878. Vol. VII. Nos. 1–53. 8vo.

A Medical Handbook. By R. S. Aitchison, M.D. 12mo, 347 pages, illustrated. J. B. Lippincott Co., Philadelphia, Pa.

Food and Feeding. By Sir Henry Thompson. With an Appendix. Seventh edition. 8vo, 222 pages. Frederick Warne & Co., New York. Price, $1.25.

Nursing, its Principles and Practice, for Hospital and Private Use. By Isabel A. Hampton. 8vo, 484 pages, illustrated. W. B. Saunders, Philadelphia, Pa. Price, $2.00.

Stricture of the Urethra. By G. Frank Lydston, M.D. 8vo, 334 pages, illustrated. The W. T. Keener Co., Chicago, Ill. Price, $3.00.

Electricity in Diseases of Women and Obstetrics. By Franklin H. Martin, M.D. 8vo, 278 pages, illustrated. The W. T. Keener Co., Chicago, Ill. Price, $2.00.

A Contribution to the Pathology of the Vermiform Appendix. By T. N. Kelynack, M.D. 8vo, 223 pages, illustrated. H. K. Lewis, London, England. Price, 10*s*. 6*d*.

The Health Resorts of Europe. By Thomas Linn, M.D. 12mo, 330 pages. D. Appleton & Co., New York.

Pietro Geisleri. By F. Marion Crawford. 12mo, 429 pages. Macmillan & Co., New York.

The Law of Cremation. By Aubrey Richardson. 8vo, 187 pages. Reeves & Turner, London. Price, 5*s*.

A Manual of Diseases of the Ear. By George P. Field, M.R.C.S. Fourth edition. 8vo, 382 pages, illustrated. Lea Brothers & Co., Philadelphia, Pa.

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Original Articles.

A REPORT ON TWENTY-THREE CASES OF INGROWING TOE-NAIL OPERATED UPON BY THE METHOD OF ANGER.[1]

BY CHARLES N. DOWD, M.D.,

NEW YORK.

ASSISTANT SURGEON TO THE NEW YORK CANCER HOSPITAL AND THE VANDERBILT CLINIC.

INGROWING toe-nail is an ailment which seldom calls for operation when the patient is intelligent and careful. If the nail is allowed to grow so long that its lateral margin does not plow into the side of the toe and irritate it, and if the patient will wear broad-toed shoes, and keep clean, there need seldom be any serious inconvenience.

Among the patients who frequent dispensaries, however, there is much suffering from this malady, and the pain and inconvenience are frequently sufficient to prevent them from attending to their ordinary duties. In such cases operation is generally the best method of effecting a cure.

During the last two years I have operated upon twenty-three such cases at the Vanderbilt Clinic, by the lateral flap operation of Anger, and as this particular operation has not been much done in New York, it has seemed well to report the cases.

The cures seem to be permanent, and healing is much more rapid than by the operations ordinarily done. The operation consists of the removal of the side of the ingrowing nail, the inflamed tissue about it, and a portion of the matrix, leaving a lateral flap which is applied over the raw surface.

The lines of the incision are shown in Fig. 1, *A*, *B*, *C*, *D*.

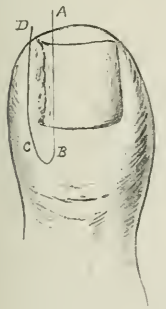

FIG. 1.—Showing Lines of Incision.

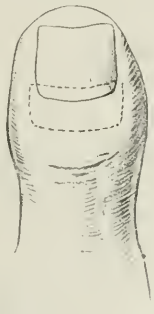

FIG. 2.—Dotted Lines Indicate Position of Matrix Proper.

The essential feature in the radical cure is the removal of that portion of the matrix from which the troublesome part of the nail grows. The matrix of the nail should be distinguished from the bed of the nail. The position of the matrix is indicated somewhat schematically by the dotted lines in Fig. 2.

When this is removed, the growth of the nail ceases.

Quenu[2] proved this by twisting off nails and then excising that portion of the subungual dermis which lay back of the lunula. No nail grew, only a few horny lamellæ from the anterior part—the bed of the nail—which was left intact.

In removing the matrix, it is important to cut well back. Sappey[1] states that "the subungual dermis arises at the place where the extensor tendon is attached to the third phalanx of the toe, and that it is intimately adherent with the periosteum of this phalanx." Since this tendon is inserted at the base of the phalanx, Quenu and Anger in their operations have removed the tissue nearly back to the joint.

Anger[2] scrapes the bone well, at least one-fourth inch back of the visible portion of the nail. Sometimes he removes a thin lamella of bone. In the cases which he reported he used ice and sea-salt as a local anæsthetic, and adjusted the flaps with strips of adhesive plaster. Under this technique he considered it necessary to keep his patients in bed for a week, and did not allow them to walk before the tenth or twelfth day.

In the cases which we are now reporting cocaine was used as a local anæsthetic, the flap was stitched in position, and the patients were not confined to bed at all, but were allowed to walk immediately. ℥ xx. to xxv. of a four per cent. solution of cocaine hydrochlorate injected into the skin sufficed to give good anæsthesia, so that the matrix could be carefully and leisurely dissected away. No lamella of bone was removed, but all the tissue which seemed like matrix was cut away with much care, the periosteum being scraped from the bone just at the base of the nail. This removal of the matrix was more thoroughly done in the later than in the earlier cases, and the later results were accordingly somewhat better.

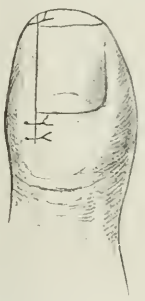

FIG. 3.—Flap and Stitches in Position. Dorsal Surface.

FIG. 4.—Flap and Stitches in Position. Plantar Surface.

A bit of rubber tubing tied about the toe prevented hemorrhage, and thus facilitated the dissecting out of the matrix; the slight hemorrhage which followed its removal was easily controlled by torsion and pressure.

The stitches, which were of horsehair, were applied as shown in Figs. 3 and 4.

A firm bandage of sterilized gauze was applied so as to bring considerable pressure on the flap; a gauze, cotton, and crinoline dressing was applied outside of this so as to envelop the entire foot. A rubber or old shoe was cut so as to admit this bulky dressing, and the patient was allowed to walk home or to the street car.

[1] Read before the Surgical Section of the New York Academy of Medicine, March 13, 1893.

[2] Quenu: Bull. et Mém. de la Société de Chirurgie, 1887, p. 252.

[1] Sappey: Traité d'Anatomie descriptive, t. iii., p. 606.

[2] Anger: Bull. et Mém. de la Société de Chirurgie de Paris, 1889, p. 594.

Careful aseptic and antiseptic precautions were employed.

The first dressing was ordinarily left on three to six days.

The advantage claimed for this simple operation is that healing is accomplished in less time than by the other operations which give as good results. Let us examine the records of these cases and see if the claim is substantiated.

The inflammation in all the cases was of a severe type, sufficient to seriously interfere with or prevent the patient's working. There was usually a history of acute inflammation for a month or two, with preceding irritation for a year or two.

Seventeen out of the 23 cases were seen five months or more after the operation. In 11 of these 17 cases, the period was over a year; and in 5 of those it was over a year and a half. Of the remaining 6 cases, 3 were seen six weeks after the operation, the others from twelve to twenty-six days. We are thus able to judge well of the results of the operation. In following these cases for this unusually long time, I have been greatly aided by Dr. A. Agramonte, who has been much interested in the operation and the results.

All of the cases when last seen were cured, with one exception. The history of this exceptional case is as follows:

On the day following the operation she had a fit on the street, presumably hystero-epilepsy, and was taken to a hospital in an ambulance. The dressing was there removed from her foot, and the stitches taken out. She was seen two weeks later, and then had a granulating rim at the line of incision. She came back to the clinic very irregularly, three or four times more, and then passed from observation before healing was complete. There is little doubt that she was really cured, although I am unable to definitely record such a result.

In the other cases which were seen later than five months, the cure was complete. When last seen there was no tenderness and no tendency to recurrence, and the toes looked normal, excepting that a thin line marked the site of previous incision.

We can thus feel confident of curing our patients by this operation. Anger reported one hundred and seventeen cases, and stated that he did not see a single relapse among them all.

Now let us turn to the other point. Is the cure effected more easily than by other methods? I will give the history of a good case to show what we may expect when all goes well, and then will group and make extracts from the histories of the others.

No. 10. Saleslady. Ingrowing nail two and a half years. Very severe symptoms two months. At present time the edge of nail grows deeply into the side of toe, and there is much granulation about it. Operation done August 6, 1891. The next day, August 7th, she came to clinic, stated that she had slept well, and that she walked about the house and to the street car with comparative comfort. Six days later, August 13th, the dressing was changed and healing by first intention was found. She stated she had walked about in comfort since the first day. The stitches were removed and she went directly from the clinic to her work as saleslady, with the toe protected by a gauze bandage.

She was seen four days later and was then dismissed from observation, "cured." She was seen a year and a half later, and stated that she had had no trouble with the toe since the operation. The scar was scarcely noticeable.

The notes on the condition of the other cases after operation are summarized as follows:

Case 1. Came to clinic regularly to be dressed, and walked about without marked inconvenience after the first day or two.

Case 2. Walked about considerably after the first two or three days.

Case 3. Walked two miles on seventh day. On thirteenth day walked three or four miles. No pain.

Case 4. Able to walk well from time of operation.

Case 5. At end of week walked well. Began work as elevator boy.

Case 6. Walked about on third day. No marked pain.

Case 7. Walked at the end of twenty-four hours, without much pain.

Case 8. Walked about with comfort after first two or three days.

Case 9. No pain after second day; then very little. Walked about well.

Case 10. Walked well about the house from first day on. Began work as saleslady seventh day.

Case 11. Walked on second day with little discomfort.

Case 12. About as much discomfort for four days following operation as for four days before.

Case 13. No discomfort except slight pain first night. Went to Coney Island on third day.

Case 14. On day following operation was taken to hospital for another ailment. (See history above.)

Case 15. For two months after operation there was slight tenderness about the toe, although the stitches were removed on the sixth day, and healing seemed then to be perfectly satisfactory.

Case 16. Was much more comfortable during the six days after the operation than those before.

Case 17. Came to clinic two days after operation, and again in four days. Walked with moderate discomfort.

Case 18. Very neurotic. On account of pain did not come to clinic to have toe dressed, but sent for a doctor. The pain and tenderness subsided after a few days.

Case 19. Slight pain first night. Slept well. Walked with moderate discomfort.

Case 20. No pain after operation. Three days after operation walked with comfort. Six weeks after operation patient said she walked better than she had for years.

Case 21. Fairly comfortable first two days. On fourth day pus was found and stitches removed.

Case 22. Walked two blocks on day following operation.

Case 23. Went to work after eleven days, standing at printing press. Fairly comfortable in the meantime.

Most of the patients suffered less during the week following the operation than during that which preceded it.

The average time at which the patients could be dismissed from attention was about two weeks, although many of them were told to come to the clinic longer than that.

There were, however, three cases in which considerable discomfort was caused by a new piece of nail starting from a bit of matrix which had been left behind by mistake.

This new nail grew out beside the other and irritated the side of the toe until it had reached the full length of the nail. In each case the ultimate cure was complete.

In ten of the cases there was healing by first intention, in nine there was slight granulation, and in four there was moderate suppuration. There was no sloughing of the flap.

In comparing this with other operations the question at once arises: What is the result if the flap does not unite by first intention, or with only a little granulation? Even then the healing is more rapid than by the "Cotting" operation, the one usually done here, since there is a smaller area of granulating tissue.

In one of the cases a Cotting operation had been done two months before on the other side of the same toe, and a considerable granulating area still remained. But in spite of the close proximity to this suppurating surface and a certain amount of suppuration which took place in the new wound, it healed before the Cotting and left an equally good result. The histories of these cases would then lead us to believe that we may expect rapid cures from this operation.

Nausea is said to be promptly relieved by a mixture of four drops of creosote in two ounces of lime-water. Dose: A teaspoonful every fifteen minutes.

TUBERCULOSIS.[1]

By M. P. OVERHOLSER, M.D.,

HARRISONVILLE, MO.

It is evident in bringing before you this subject for discussion that we can consider only a small part of the great field of thought and investigation it opens up before us. Recent researches along this line have added much to the literature of the subject, and have spread light and guidance in many directions. To review only a part of the work that has been done would be an endless task. Each day the enthusiastic worker in this field of labor tries to furnish us with some new plan of treatment or equip us with some new remedy with which to combat this scourge of civilized humanity.

So much has this subject been discussed of late that it is indeed well-worn, and to start out with a view of presenting to you something new and interesting would, no doubt, prove an unsuccessful task. In hope, however, of finding something practical, we have gone back to begin our search among the relics of the theories of the past, and have endeavored to traverse the ground from the old histologic teachings of Virchow, down to the all-abounding bacteriologic teachings of to day. The greatest event of this period was the discovery of the tubercle bacillus by Koch. This discovery revolutionized the theories and teachings concerning the nature of tuberculosis, and seemed to illuminate the very kernel of the subject. By this single stroke old and much-debated questions were apparently solved, and many of the mysteries surrounding this obscure disease were viewed in a new light. Clinical medicine hastily accepted the new doctrine, and frankly interested itself in the reconstruction of views which it imposed. So great was the change wrought that the tubercle bacillus seemed to be the all-important factor of the disease, and, as some one has said, "it became the one fixed fact in its pathology, and was soon universally regarded as the acknowledged centre about which all phenomena of the disease must revolve. Thus the study of the etiology of tuberculosis became simply the study of the life-history of the tubercle bacillus; its symptomatology, the effect it produced in the body; the definite diagnosis, the recognition of the bacillus in the discharges or tissues, and the therapy, the use of agents which would destroy it or prevent its growth in our structures. Whatever views, theories or hypotheses that would not fit in with these teachings were relegated as obsolete lumber to chapters on the history of the disease."

It is hardly necessary that I should review some of the facts, and many of the theories, that seemed to confirm the generally accepted opinion that the bacillus of Koch was the sole cause of the tubercular process. The foremost bacteriologists, pathologists, and clinicians of the world accepted this with a unanimity scarcely ever before or since witnessed in any scientific discovery. And thus it was that the great leaders of this new doctrine set to work to find some remedy or device some means with which to destroy in the body the micro-organism that was believed to be the sole cause of this dread disease that annually stalks through our land claiming its victims by tens upon tens of thousands each year.

The medical world waited with anxiety for the discovery of the specific, and perhaps the most dramatic event in the history of modern medicine was the announcement of Koch's experimental work with tuberculin in his earnest search for this much-hoped-for microbe destroyer. The reception of his labors was, for a time, enthusiastic and promised us much; but the failures that followed the general use of his remedy soon caused an adverse turn of public and professional sentiment, until, to-day, Koch's tuberculin is practically a thing of the past. Disappointing, however, as these results were, the work continued along the same line, and still we are in search of a specific medicament with which to deal a death-blow to these micro-organisms when they invade the human economy.

In the meantime the profession has again turned to the use of creosote. Discovered by Richenbach as early as 1830, it quickly secured a reputation in Germany, France, and England as a remedial agent in pulmonary disease. However, it gradually fell into disuse; but in 1877, through the admirable clinical paper of Bouchard and Gimbert on its beneficial effects in consumption, it was again taken up, and now seems to be gradually receiving increased favor from the profession. Some observers who have used this remedy have come to the conclusion that the good results which they have obtained from creosote are due to its specific action upon the process of disease, and have even gone so far as to try to make us believe that we have finally found in creosote a medicament which in itself is almost a specific for tuberculosis. Others tell us that creosote is without any influence upon the tubercular process, and no influence whatever upon the tubercle bacilli, and that the efficiency of the remedy depends upon its anti-fermentative power in the digestive tract. Creosote, they say, arrests or diminishes stomach fermentation, so frequently present in tubercular patients, and thus it favors nutrition and assimilation by increasing the appetite, promoting absorption, enhancing digestion, and in this manner the body-weight increases while the subjective symptoms—cough, expectoration, and the hectic phenomena—in the favorable cases disappear.

That creosote does have a beneficial effect upon some cases of tuberculosis is now being generally conceded, and cases of permanent cure are frequently reported, but the consensus of medical opinion is that its efficiency is not due to a direct action upon the tubercular process or tubercle bacilli.

In fact, we ask what medical remedy have we found that has proven to us in our observations and clinical experience that it has a specific effect upon the bacillus of Koch? We certainly do not administer our tonics, alteratives, and tissue-builders with a view of attacking directly these microbic invaders, and thus succeed in breaking up their colonization in the tissues of our patients! We certainly do not send our patients to the mountainous regions to breathe the pure air of higher altitudes, believing that the rarefied atmosphere of these regions will have a direct destructive effect upon the bacilli! And what better treatment have we, or what better advice can we give our patients! We ask again if all our treatment—climatic, hygienic, dietetic, gymnastic, medicinal, etc.—is of value in so far only as it adds constitutional vigor, increases the life-force of our patients and holds at a stable equilibrium the expenditure and supply of vital energy in the metabolic processes of the body?

This brings us to the chief point of our paper, and with due regard to the discovery of Koch of the bacilli, and the teachings of his followers, we have reasons to believe that there are other factors equally as important in the causation of this malady as the part played by the microbe.

Someone has said, "With a proper regard for the etiologic part played by micro-organisms in the drama of disease let us not mistake the cause for the effect—the organism is not the disease. Living, as we do, in the midst of myriads of disease-producing agencies, existence would be but a series of infection were it not for some kind of barrier placed between us and disease. Something more than seed is necessary for vegetable development. Not less important is soil. So, in the treatment as in the prophylaxis of tuberculosis, it is the constitution and not the germ that requires attention."

With reference to the report of the Second Congress for the Study of Tuberculosis, held in Paris from July 27, to August 2, 1891, it is said that if there is one thing above all others to be learned from the many discussions upon this well-worn but still obscure subject of tuberculosis, it is that the bacillus alone does not constitute the disease. The host is obviously not the least important element,

[1] Read before the Hodgen Medical Society, July 6, 1893, at Harrisonville, Mo.

and the only hopeful means of conquest must be on the lines of physiological resistance. The soil must be rendered sterile. A healthy condition of tissues and fluids best fulfils the indication in that it is antagonistic to bacterial growth and activity. One author says: "Writing in the light of many months' world-wide trial of Koch's remedy, I see in the present resources of medicine no means of directly or indirectly destroying the bacillus or of preventing its destructive action save by reinforcing the tissues. Nor do I conceive it within the range of probability that a specific in this disease will ever be discovered. Specific medication in tuberculosis while it may not be irrational is certainly misleading, for it is directed to simply an effect, or a secondary result of a fundamental cause which lies anterior to, or prior to, the invasion of the system by the bacilli." Solomon Solis-Cohen, Lecturer on Special Therapeutics in the Jefferson Medical College of Philadelphia, who has written an excellent article on tuberculosis, not long since, says, "that the bacillus of Koch, while it is perhaps the most important of several microbes that influence the progress of lesions in the various forms of this disease, does not of itself originate the disease in any form."

We must all acknowledge that there is in the constitution of the individual, anterior to bacillary infection, something that determines the fact of infection, and that largely determines also the course and character of the results of infection. Parasites thrive only under certain conditions. Remove the conditions which are favorable for their propagation and they disappear. "You take away their lives when you take away the means by which they live," has been well said.

Experience compels us to acknowledge that the healthy organism has great power of resistance to the bacillus, which can make an effective and permanent settlement in the lungs or other structures of the body only when certain favorable conditions are present.

Upon this point we desire to speculate. That which has been called "individual susceptibility," "predisposition," "lack of resisting power" to the bacillus, "a favorable soil," or "good culture medium" for the bacilli, is a determining element, a pathological something, a departure of some kind from the normal chemico-vital processes of the body, and is of itself a disease, primary to, and a prerequisite for, a successful invasion of the system by these parasites. Clinical experience teaches us this plainly. How often do we see in hereditary cases this underlying cause transmitted from parents to children, and whole families of comparatively young persons, with compact bodies, stout muscles, and natural color, quickly become victims of this disease?

There is no fact that seems so firmly established as the inheritability of this underlying cause of tuberculosis, and yet, after the discovery of Koch and his followers, so difficult was it to harmonize his theory with this clinical fact that, strange to say, the possibility of hereditary transmission of this fundamental factor of the disease was even denied by the adherents of the theory of the parasitic doctrine. But it was not long until the old view that was founded on clinical evidence was believed to be right. Various hypotheses were then soon started in explanation of this fact. Some observers told us that the child was born with tubercle bacilli in some of its tissues, and that the bacilli remained inactive for years. The long latency of the bacilli in childhood, however, was a special difficulty to be solved. It was then said that the fœtal and infantile tissues were more resistant to microbes than the tissues of the adult, and that the resistance of embryonal and infantile structures kept the bacilli in a, so to speak, "larval state" in the lymphatic glands, marrow of the bones, etc.

Such ingenious theories and others of a like nature were given us as an explanation for facts and phenomenon observed in the disease, but not well understood.

It was believed that all theories must harmonize with the prevailing idea that the bacillus was the primary, and, in fact, the only etiologic factor of tuberculosis.

The enthusiasts of a period of progress, of activity, of work in this department of medicine, have taught us much, but still there no doubt lie hidden in the realms of truth facts that are yet waiting for the eye of the discoverer, and that must be revealed before harmony can prevail between clinical observations and theoretical teachings.

Facts that have just been brought to light may be explained by new theories, but new theories can never change old facts. No matter if theoretical teachings must fall, and significant revolutions in practice follow, the accumulated results of clinical experience, the views founded upon observation and maintained from generation to generation, causes and effects long ago observed, and to-day recognized by all whose eyes see when removed from the microscope, must not be lightly set aside.

That there is a cause of tuberculosis, inherited and acquired, regardless and entirely independent of the bacillus and of a primary etiologic importance, is being recognized and admitted by students of the disease of to-day.

Periods of great activity and growth in any department of medicine are followed by intervals of rest.

We are prone to follow the enthusiasts and extremists in their earnest search for truth until we find that the results of their experimental work disappoint us in our expectations. Then stopping to sift and carefully examine that over which we have passed, we must settle upon facts and opinions as a basis on which to continue our work anew.

We admit the truth of Koch's discovery—a fact that cannot be denied. We acknowledge the presence of Koch's bacilli in most cases of tuberculosis. We believe that the bacilli are parasites that live and thrive only under certain conditions, and that these conditions are the result of some pathological state of the tissues, which, if successfully remedied, will permit the microbes to come and go harmlessly.

Within the cell, the ultimate morphological element of living structures, lies many mysterious processes and potentialities — processes physiological and pathological, energies latent and active, changes which are yet puzzling the physiologist, pathologist, chemist, and microscopist. Within the protoplasm, the living matter of the cells, resides a vital force, an energy which enables this living matter to transmute physical and chemical actions into vital processes, and to transform inanimate matter into the material basis of life.

We recognize that any force is simply a mode of universal energy, but the immediate origin of vital force of any living structure is its parent cell. It is true that the life of the cell must be afterward maintained by the conversion of other forms of energy into life energy, but the potential energy that is transmitted from parent to offspring is an important factor in the determination of the length of life of its progeny. We can see this plainly in both the vegetable and animal world. A plant may grow to maturity, bear fruit, and die. It may die not because the conditions which surrounded it were unfavorable for its growth, but simply because it was endowed with an original quantity of vital energy just adequate for a certain result and no more. The elephant lives longer than the horse, not because the conditions which surround one animal are more favorable or unfavorable to life than that of the other, but simply because within the living protoplasm of the one lies a potential power, inherited from its parent cell, which enables it to keep up the vital functions of life for the greatest period of time.

This vitality of the cell, which is originally a potential energy transmitted from parent to offspring, lies, we believe, at the foundation of the determining cause of tuberculosis.

The tubercular parent, with scarcely enough vital force to maintain his own existence, transmits a deficient potential vital energy to his progeny.

All the functions of life are simply manifestations of

force. When our Creator breathed into man the breath of life, He breathed into him potential powers, latent forces and energies that were to maintain his individual existence only for a period of time. He had provided a mortal frame in which the forces of the material world, through physiological and chemical actions on matter, could be transformed or converted into life energies. For life energy is simply a mode of universal force, and it is by the continual supply and discharge of this force in vital structures that the life of the structure is maintained, not perpetually, however, but only to the point of exhaustion of the potential or reserve energy of the living body.

In the destructive and reparative processes of tissue-change there is a liberation and a reaccumulation of force, and as this building up and breaking-down process is continually going on in the body, it gives us a circulating energy which is being constantly discharged and reaccumulated in these positive and negative phases of metabolism.

Besides this circulating energy there is a latent energy in the cells of vital structures, which represents a quantity of potential force by which the functions of life may be kept up for more or less prolonged periods of time without the supply of force from without. It is this reserve power that has safely carried many an individual over the crisis of disease by keeping up an amount of circulating energy sufficient for the maintenance of the functions of life when disassimilation of tissue, and consequent expenditure of force, exceeded that supplied from without by nutrition and assimilation.

That the immediate origin of this potential vitality is the parent cell cannot be questioned; and the more we study life in its various forms, the more evidence have we of the different potential capacities of the parent cell from which it came; and by a still further investigation into some of the problems of heredity we are forced to conclude that this potential vitality of any living structure is a quantitative inheritance from its parental ancestry. For if we find qualitative characteristics, such as likeness in form, features, disposition, etc., to be hereditary qualities, just so should we find potential energies to be hereditary quantities.

The germ-cell is potentially alive with qualitative and quantitative characteristics of its parent cell. The causes of prepotency by which the maternal and paternal characteristics prevail in parts, or in the entire structure of the offspring, is not known, but that these ancestral characteristics are transmitted from parents to descendants cannot be denied.

We say, then, in accordance with some of the late teachings on this question, and in the words of other authority than ours, that congenital tuberculosis depends upon a quantitatively deficient inheritance of original energy. Acquired tuberculosis depends upon any condition that reduces the quantity of potential energy below that inherited, or below the quantity required for the normal cellular activity of healthy structures.

A germ-cell thus congenitally deficient in vital energy may fail to reach its full development or growth. It may break down at the period of puberty, or at the period of reproduction, or under any condition in life that would cause an excess of expenditure of vital force beyond that supplied.

When we come to study the different pathological processes of the body, in none but tubercle do we find such a marked lack of cellular vitality. In inflammation cellular activity is increased. Here there is an abnormal excess of tissue-building—a process in which the inherent vitality of the part is plainly seen by an increased afflux of blood and a rapid multiplication of cellular structures. It is a process also that tends to termination either by resolution or suppuration, and if by suppuration the vitality of the surrounding parts quickly replaces the tissue destroyed or repairs it by a durable cicatrix.

In the growth of neoplasms, where there is a perversion of the normal tissue-building power of the part, the new structure acquires a certain degree of organization and tends to persistence in its growth. Tubercle, on the other hand, is a morbid cell aggregation so devoid of vitality as to be unable to progress into the parent-cell type, into a durable neoplastic growth, or even into a cicatrix cell. It is simply a progeny of cells so deficient in potential energy as to be unable to complete their development into any kind of durable tissue.

In reticular miliary tuberculosis Gibbs says the tubercle consists of a degraded type of cellular structure that increases from the centre of the tubercle, compressing the reticular tissue toward the periphery, and which is prone to undergo necrosis.

There is no tendency to reaction in this pathological process. It is not a death of the part in healthy structures by the destructive action of little colonies of bacilli, but simply a retrogressive course of tissue-building—a formation of tissue elements so degraded in type, so low in vital force as not to be able to maintain their own existence.

If they were localized areas of destroyed tissue, the result of bacillary infection, would not conservative nature at once summon her latent forces, and with an increased cellular activity of the contiguous parts of the infected area surround the destructive agents with an inflammatory barrier and seek to prevent an extension of the process by preventing further invasion of these micro-organisms into her healthy structures? And if successful in this, after she had cut off the supply of her intruders until they perished, would she not then follow her usual course, under similar conditions, by replacing the destroyed tissue or building in its stead a durable cicatrix? But not so! There is not even vital force enough in the contiguous structures to bring about a healthy reaction as a conservative step in the limitation of the process. Still further in accordance with this view Gibbs says that in reticular miliary tuberculosis careful examination of numerous sections, stained by the most approved processes, often fails to reveal any bacilli, even though hundreds of sections are examined.

In chronic localized tuberculosis the process is different. Here there is a tendency of reaction of the organism. In the lung, for instance, where there is consolidation, we find it surrounded by new fibrous tissue. In the disintegration of this consolidated tissue in pulmonary tuberculosis we find a condition very favorable for the propagation of bacilli, and in many of these cases the sputa is found to be swarming with bacteria. It is this form of tuberculosis that seems to be simply a warfare between the bacillus, on the one hand, and the vital strength of the tissues on the other, the fate of the patient depending most largely upon the vital energy resident in the part attacked.

Henry P. Loomis, of New York, says: "After a careful study of the processes which result in the arrest or cure of this form of tuberculosis, that of seven hundred and sixty-three persons dying of non-tubercular disease, seventy-one, or over nine per cent., presented in their lungs changes characteristic of healed tuberculosis, and other observers tell us that their clinical experience and post-mortem examinations prove to their minds that the reaction against these infective microbes is so marked in some constitutions as to even bring about spontaneous cures of tubercular disease without the aid of therapeutical measures."

By a careful study of nature's own efforts in coping with this affection we find that her success lies along the line of physiological resistance of the tissues to the microbe. If she fails, her failure should not be attributed to the destructive effect and infective nature of the bacilli, but to a lack of sufficient vital force to properly maintain the integrity of her own structures, in consequence of which these parasitic agents which float in the air we breathe, and lurk in the food we eat and the liquids we drink, find a suitable lodgement for their growth, a favorable soil where they can live and thrive upon a pabulum furnished them in poorly organized tissue. A colony

once established (aside from surgical means) can be eradicated only by nature's own process. Fibrosis is her conservative and protective step, a process resulting from augmentation of cellular activity, simply an increase of a normal constructive phase of metabolism, accomplished only through a potential energy of the living cells of the part which acts as a bulwark to prevent the irritation and extension of this tubercular process, or the destructive effect of the bacilli.

Let it be understood, then, that we believe the great factor in the causation of congenital and acquired tuberculosis is a deficient vitalization of the cellular structures of the part affected.

The high potential capacity of living protoplasm we believe to be the potent factor in the protective and curative efforts of nature, therefore it is this fort that we must strengthen in the management of our cases if we expect our treatment to be productive of good results. We will not have time, neither do we intend, to specialize in treatment.

In a general way, we would advocate the renewal of vital energy by any and all methods through which it can best be accomplished: More general vitalizing treatment directed to our patients, and less specific medication directed to the microbe; an abundance of food, air, light, and sunshine; alimentary and respiratory diet, rich and free; tissue builders laden with nitrogenous and hydrocarbonaceous compounds. Nitrogenous elements, the great liberators of force, and hydrocarbons, the great storehouses of energy, must be supplied in abundance. Oxygen, the great purifier and revitalizer of diseased structures, must hold a prominent place in therapeusis. All measures to keep up vitality and revitalize diseased structures must be foremost in the mind of the therapeutist, remembering that measures which favor the nutrition of man oppose the nutrition of harmful bacteria. Fight the enemy by strengthening your own fortress. Do not spend valuable means and time in useless efforts in attempting to destroy or eradicate a universal foe, which lies waiting to attack the weak on every hand, but guard well your frontiers, build up your barriers of defence; for fortification against a further invasion of such an attack is safer and wiser than to seek protection by useless attempts to destroy the enemy.

We believe, if a successful treatment of tuberculosis is ever attained, that the microbe will be practically forgotten, and that the therapeutical measures will be directed to the condition of the system upon which the bacilli thrive.

MALIGNANT GROWTHS OF THE SKIN, PARTICULARLY OF THE FACE[1]

Their Early Recognition and Treatment.

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It is not the purpose of this paper to enumerate all the malignant diseases of the skin, nor to detail all of those that are known to attack the integument of the face, but rather to call attention to certain affections having a special predilection for this region, which, according to the writer's experience, especially merit attention at this time. For it is to medical men engaged in general practice that those afflicted with the conditions to be considered first apply for aid. For this purpose, and to present the subject briefly, but two cardinal pathological conditions will be considered—tuberculosis and epithelioma—they being the malignant growths most commonly encountered and upon whose early recognition and prompt treatment so frequently depends the patient's life.

By tuberculosis of the skin we mean an inflammatory condition occasioned by the presence of the bacillus tuberculosis, which leads to gross destructive changes in the part attacked, from which it has been named lupus. Two varieties of this disease are met with—lupus vulgaris and lupus erythematosus. The first is encountered early in life and most frequently appears during the second decade. Lupus erythematosus seldom appears before thirty, and from the greater resistance the skin acquires against this bacillus at this time, it appears in a milder form, is not accompanied by the disfiguring loss of structure which characterizes lupus vulgaris, and less frequently leads to a fatal termination.

Confined to the skin lupus is fatal to the integrity of the parts affected, but not to the life of the patient. It is only when it extends to the internal vital organs that it becomes a fatal disease. As it most frequently attacks the face, particularly the nose and ears, its close proximity to the mucous surfaces facilitates its fatal extension to the meninges of the brain and to the pulmonary tract.

Jonathan Hutchinson was wont to maintain that the lupus process seldom extends into the air passages, although it was frequently encountered on the gums, tongue, and sometimes in the œsophagus. He had seen it in the rectum in one case. Unfortunately this immunity of the air passages does not obtain in Northern Ohio, as shown in the following case, which is selected from others of the same kind:

Case I.—Annie N——,[1] aged thirteen; delicate; mother died of phthisis two years previously. When the patient came under my care, November 24, 1890, one year after the onset of the disease, there was present a dark-red spot, about the size of a silver three-cent piece, on the right cheek. Irregularly scattered about it were millet-seed-sized papules or tubercles. They were not elevated above the surrounding skin and the central lesion was even slightly depressed. This latter was covered with loosely adherent scales and a few small crusts, upon removal of which an irregular, easily bleeding surface was exposed. The right lower half of the nose was also involved, as was the nostril of the same side, which from the inflammation and cicatrization resulting therefrom had contracted the opening to about half its normal size. In dilating the orifice sufficient for an examination it bled freely.

The patient was given the potassium iodide to full toleration and the compound tincture of gentian. Locally an ointment containing salicylic acid, grs. xxv.; oleate of mercury (ten per cent.), ʒ j.; and vaseline, ℥ j.

On December 6th the eruption showed a marked improvement, but the potassium iodide was ill borne and recourse was had to a pill containing iron, arsenic, and strychnine. This line of treatment was followed until October 1, 1891, at which time the eruption remained *in statu quo*. Repeated scarifications were then begun, as recommended by Vidal and others. After scarification, the surface was touched with creosote, and capsules of creosote were given internally.

December 25th.—The eruption was better than at any time since the beginning of treatment. There was, however, a grayish-white patch surrounded by a bright-red areola on the mucous membrane of the lower lip.

December 26th.—A lesion similar to the one last noted had now appeared on the roof of the mouth, about an inch in front of the uvula.

Soon after this it was noticed that the patient was losing flesh rapidly; she had a cough, and upon examination moist râles were detected in both apices. The patient grew worse rapidly and died of phthisis during the summer of 1892.

Although the lungs afford a favorite seat for the grave sequelæ of lupus, yet other structures may become involved, as in the following case:

Case II.—Maggie R——, aged twenty-seven, seamstress, family history free from tuberculosis in its various forms, developed a patch of lupus on right cheek at the age of seven years. It was about the size of a twenty-five cent piece and remained in a quiescent state until the age of puberty, when it assumed a more active condition. I saw the case for the first time February 16, 1884. At

[1] Read before the Ohio State Medical Society, at Put-in-Bay, June 28, 1893.

[1] Clinical lectures at the Hospital for Skin Diseases, Blackfriars, London.

this time the face was badly disfigured. Scarification, caustics (the nitrate of silver and the acid nitrate of mercury), and the internal administration of iodine and cod-liver oil were employed, but the disease extended. Finally the external auditory canal was attacked and completely occluded with exudative material. In this position local measures could be but ineffectually applied. About four months after, the patient complained of deep-seated pains in the ear, followed by delirium and death in September, 1886.

The autopsy revealed an accumulation of pus in the internal ear, and tubercle nodules in the meninges of the brain on the corresponding side.

Even more frequent as well as more fatal than tuberculosis is the rebellion of cells known as epithelioma. By this term we designate an infiltrating growth in the skin composed of cells of the epithelial type. Epithelioma has likewise a subdivision in rodent ulcer, which differs but little in histological structure from cancer, yet from its course and clinical aspects it is entitled to a certain distinction, if not to be regarded as a disease *sui generis*. (According to Thin the cells of rodent ulcer have a uniform nucleolus, a non-granular protoplasm, and is characterized by the absence of epithelial nests.) Whether with Malassez, Albarran, Cornil, Dubreuilh, and Wickham, we accept the theory of the psorospermoses, of this we are certain, that epithelioma develops in those parts of the skin which from their exposed position are subjected to irritation, or from repeated injury; as a consequence they are less liable to resist the invasion of an external foe or to regain their healthy tone after slight though repeated departures from the normal.

Believing that the various lesions and anomalies in which epitheliomata so frequently develop are at the onset distinctly local affections, it becomes necessary to speak of them as a premonitory condition. With epithelioma when developed, text-books are sufficiently explicit to make it easy of recognition, and need not further concern us here; but it is when the death-dealing process lurks behind the mask of the simple anomalies of the skin, or in the simple and at first benign pathological disturbances of its structure, that we wish especially to emphasize at this time.

Of the congenital anomalies of the skin which after the fourth decade of life become cancerous, the papillomata stand at the head. In these the histories present a marked similarity in that at a certain time the wart was injured, or that at times when irritated it became red and slightly painful. This condition may have continued for months or years, when finally, from some lowering of the general systemic tone the well-recognized characters of a malignant growth appeared. In the acquired papillomata the transition from the benign to the malignant is usually more direct. Neither does the presence of pigment exert any influence in determining this unhappy termination. For example, the lip has been exposed to the irritation of a pipe or a cigar; as age advances it shows the effects of this long-continued local stimulus in the form of an hypertrophy—in this it but follows the natural law. In some there appears at the focus of irritation a variously sized and shaped villous growth—a papilloma—on others this gives rise to an abrasion. Months and years go on, the part is subjected to the round of plasters and ointments, all more or less irritating, until finally, under this systematic cultivation, its malignant nature becomes strikingly apparent.

In the same way certain diseases of the skin predispose to epithelioma. Especially is this true of the derangements of the sebaceous glands. For this reason acne is always a source of menace to old people. What is even more common in the aged than acne is the form of seborrhœa of the face, which has been aptly called by the French *séborrhée crouteuse*. This appears in the form of variously sized plaques, slightly raised above the surface, of a yellowish-brown or muddy color, firmly adherent, and when forcibly detached presenting a base not unlike that in erythematous lupus. These sebaceous plaques usually break down late in life, and not infrequently give rise to epithelial cancers.

Several cases are on record in which epithelioma has been engrafted on lupus of the face. I have a photograph of an epithelioma occurring in the cicatrix of lupus, the two diseases existing side by side. The patient was an old woman, who had been afflicted with lupus vulgaris since the age of twenty. At the age of fifty-three the malignant sequelæ herein shown appeared.

Treatment.—It is of the first importance that treatment be begun early in the history of the disease. For this its early recognition is necessary. Again, the ultimate success will depend upon the thoroughness with which the procedures adopted are carried out. The diseased process being confined at first to the structure of the skin, local measures are the ones upon which we must rely. It must also be borne in mind that in both lupus and cancer a vitiated constitution will enable the disease to pursue a rapid course. For this reason the general management of the case should never be lost sight of. Proper hygienic surroundings, good food and the ability to appropriate it, should if possible be maintained. For this the vegetable bitters, iron, and in some cases cod-liver oil, will be indicated.

In the local treatment of lupus thorough destruction of the *materies morbi*, and care that the adjacent healthy structure be not exposed to contagion, are the first objects to be attained. Further than this the method may be largely a matter of individual preference; those most in vogue are, first: Destruction *in situ* by caustics, such as the stick of nitrate of silver, pyrogallic acid, the galvano-cautery, etc. Second. Enucleation with Volkmann's spoon and cauterizing the walls of the cavity by either of the above; or, what is, I think, better, carbolic, sulphuric, or salicylic acid. In this latter procedure there is danger of reinoculating the patient as well as of infecting the operator, for the tubercles are very vascular and blood is with difficulty prevented from entering the nostrils and mouth of the patient, while the apple-jelly contents of the tubercles readily spatters on to the operator's face and may be inhaled by himself and his assistants. To obviate this I adopted the *thermo-cautère*, of Paquelin, about six months ago. The result has been highly satisfactory, for immunity is not only afforded to others, but by its use the destruction can be more thoroughly performed, and the walls of the cavity infiltrated with tubercle bacilli, although they offer a firm resistance to the scoop, hold out no barrier to the actual cautery. Even in the milder form, lupus erythematosus, I believe the thermo-cautery offers the quickest and most efficient means of relief. In regard to the simple growths that lead to epitheliomata, their early destruction is the safest course, although the laity are thoroughly impressed with the *noli me tangere* sentiment and frequently object to their removal until the most favorable time is passed.

Papillomata of congenital origin, when on the face or where exposed to the friction of the clothing, should be removed early in life. For this purpose electricity offers the best means at our command. The process is known as electrolysis, and consists of the continuous current passing from needles which are thrust into the base of the growth. The strength should vary according to the size of the tumor, usually a battery of eighteen cells, or from ten to twenty milliampères of current, will be sufficient. This when carefully performed leaves no scar, and is devoid of the formidable procedure that necessarily surrounds the knife. In the papillary growths that appear later in life the same treatment may be adopted. For the small indolent ulcers that appear on the lips, as well as on other parts of the face, the pyrogallic acid (ten per cent.), salicylic acid in collodion (ten per cent.), or the Vienna paste when applied early, will prove efficient in many cases. Seborrhœic plaques may be removed by escharotics, but electrolysis is to be greatly preferred.

Finally, when epithelioma is actually present there are two methods which hold out the surest means of relief—electrolysis and the knife. My experience with the first

leads me to believe that thorough destruction along the channels of absorption can best be accomplished by its use, and that recurrence is less common than by any other method at our command.

SIMULATION OF DISEASED STATES FOR THE PURPOSE OF GAIN.[1]

By A. L. HALL, M.D.,

FAIR HAVEN, N. Y.

THE simulation of diseased states for the purpose of gain has become so prevalent among us that a few remarks thereon, suggested by a considerable experience with such conditions, are not only appropriate, I believe, to this occasion, but of timely interest as well.

As a form of deception, disease simulation has been practised from the earliest times, but its development to the point of a fine art has been reserved to the progressive ingenuity and refined influences attendant upon the high degree of civilization as lived by us to-day.

Of us, as a people, it can aptly be said, that as the result of our surroundings, we are rapidly becoming a race of "neurasthenics," and that, by reason of this tendency, we are predisposed to simulation. It is a well-known fact that many of us are disease simulators from birth. In proof of this assertion I instance the infant who compels obedience to its desires by simulating laryngismus stridulus, or of the disagreeably tasked child who, as a means of escape, opportunely affects a headache; and if further proof were wanting, I would only ask that you recall to mind the many cases of youthful disease imitation occurring within the observation of each of you.

It is not, however, of such comparatively innocent simulation I would speak, but rather of that baneful form of imposture which has for its object the obtainment of unmerited benefits or the securing of unjust compensation for doubtful injuries. The many weekly indemnity societies, the multitude of private concerns, and the countless corporations which fill our land are now, as never before, the subjects of innumerable frauds perpetrated by the ever increasing number of disease simulators. The detection of simulation, therefore, is a matter of great and increasing importance, and a study of this subject will doubtless impress you with the belief that the cunning and ingenuity of mankind greatly exceed that nobler virtue, honesty.

The consideration, then, of some of the forms of disease deception and their detection will constitute the basis of what I shall attempt to say within the brief time allotted to me upon this occasion.

Disease simulators usually affect the functional forms of disease, especially the types of nervous disorder known as the neuroses. In these simulated states the true objective signs of disease are wanting, but in many instances the simulation is so well maintained that false signs are sometimes—even by the most expert physicians—readily mistaken for real evidences of disease. Of the subjective symptoms there is ever a countless array. Pain, insomnia, mental depression, loss of appetite and bodily weakness are simulated conditions that are never wanting in the feigned states of disease. The most successful simulators are those possessing the nervous temperament, and if not in an actual state of neurasthenia at the time the deception was first instituted, they, through want of exercise and insufficient food, quickly acquire this condition, to which in nearly all cases there is sooner or later superadded the emotional or hysterical state. Thus it is that, in most of the cases of disease imposture, we are inevitably, as it were, brought to face the varied conditions of neurasthenia and its allied state, hysteria. And it matters not that if under such circumstances the neurasthenic state becomes, unconsciously on the part of the simulator, a reality; it is on that account none the less an imposture, and as such is deserving of the same measure of reproach as though it were wholly feigned, instead of being the direct product of feigning.

In a considerable number of instances simulation is deferred. At first the person suffers from a slight illness or a trivial injury, but instead of recovering from it within the usual period, he passes slowly and insensibly, but none the less for that with wilful and designing intent, into a state of apparent or real neurasthenia, attended generally with hysterical manifestation. Again, where the resulting ailment has been severe and the confinement more prolonged, simulation in the form of symptom exaggeration may occur. Symptom exaggeration may be present at any stage of the disease, but where it is maintained for the object of gain, it is most marked at the time that improvement would naturally follow.

In the absence of organic lesions or of some pronounced form of disease, the condition known as the hysterical or emotional state, in nearly all cases within my observation, has been nothing less than downright simulation. Regarding the truth of this remark there is little to contradict, while upon the contrary your individual experiences with the varied forms of hysterical manifestation will, I believe, fully sustain this statement.

Again, in many instances, the hysterical condition is no more an expression of a diseased state than are those states of our feelings which are called joy and anger. Easily excited, the hysterical manifestation becomes with many persons an effective and demonstrative form for the expression of some particular state of feeling—an agreeable substitute, it may be, for the concealment of anger. Furthermore, hysteria is so easily cultivated that it may quickly acquire in neurotic subjects those symptoms which constitute its gravest forms of manifestation. In support of this assertion I cite the universal agreement of all writers upon nervous diseases as to its occasionally epidemic appearance and apparently contagious character at such times.

The teaching that education and refinement conduce to the development of hysteria holds undisturbed sway in our minds, and at the same time we are as firmly led to believe that these causes are strong factors in the prevention and dissipation of disease. While such opinions are not so directly contrary as to appear paradoxical, still they provoke a strong feeling of scepticism, which medical minds have long felt, as to whether hysteria is a diseased state or not.

Hysteria has long been looked upon as a disease resembling or feigning all other diseases. This quality is its most notable and constant characteristic, and quite essential, I maintain, to its existence. And as partially stated before, I hold, in the absence of the true objective signs of disease, that with very rare exceptions, where gain is sought, the hysterical and neurasthenic states are simply a result of disease simulation provoked by the powerful and controlling influences of suggestion. Speaking of these conditions, when following the milder forms of injury, a writer states in substance: "Given the hypnotic or hysterical state of mind, sow the seeds of suggestion, and you can grow any kind of litigation-symptoms you desire." In my opinion, he could have said with equal or even greater force: Given the object of gain, rather than the state of injury, and in neurotic soil you can cause to grow and to thrive indefinitely the symptoms which constitute the condition known as hysterical neurasthenia. It matters not by what name you call this state, whether it be the same that I give to it—hysterical neurasthenia, or whether it be termed spinal anæmia, spinal irritation, spinal concussion, railway spine, railway brain, traumatic hysteria, or traumatic neurosis—the condition is ever unvarying, except as to time.

If the simulator succeeds, from the effects of confinement, want of exercise, and insufficient food, in reaching a real state of hysterical neurasthenia, you will be unable, it may be, to detect the simulation. If there be some

[1] Read at the twenty-sixth annual meeting of the Medical Association of Central New York, held at Rochester, N. Y., on June 16, 1893.

strong and influencing object of gain in view, and there be an absence of organic disease, you will be put on your guard against deception, but you may in some instances be better able to understand the nature of the case you have been dealing with when your patient has obtained the object sought, and then quickly, and perhaps without the aid of remedies, he rapidly recovers from a state that apparently was immovable under your best directed efforts of treatment.

Again, there may be symptom exaggeration. Of this condition pain has ever been a very noticeable form. The pain will usually, if not always, find its principal location in the spinal column. Its site may vary, but it will, usually, persist in spite of treatment. It is that kind of pain which is termed by many writers hysterical pain, but a more correct designation would be given to it were it called pain simulation. Suggestion excites it, whereas the withdrawal of the attention completely arrests it. In other words, it is that kind of pain which is brought into action and dispelled at the will of the subject. It is therefore a simulation.

Beyond the point of simple increased sensitiveness the special senses are not, as a rule, involved. Vision is most prominently affected, but the impairment seldom exceeds the condition known as simple asthenopia. Motor weakness is always evident, and it may proceed until it attains a degree approaching a true paresis or paralysis. Its feigned character is plainly seen from the ability of the subject to execute any desired movement with the affected parts. To a certain extent this muscular weakness becomes a reality similar in degree to the bodily state observed in the milder forms of simple neurasthenia, consequently their differentiation is impossible from an ordinary point of view. This bodily state should not, however, mislead you into the belief that it cannot be dependent upon simulation. When such condition has long existed and is present without evidences of organic disease you will do well to ascertain if the subject is not actuated by a desire for gain. Many times such a discovery will cause you to attach a different significance to the symptoms and will assist you in differentiating disease imposture from a truly diseased state.

Disturbance of the cutaneous sensation manifests itself in various ways, but chiefly in the form of anæsthesia or hyperæsthesia. These alterations of sensations are not real, but are imagined or feigned, and are subject to the will. The frequent and cautious use of the æsthesiometer, conjoined with the other tests for altered sensation, will convince you that such is the case; and furthermore, their employment will teach you that these apparent alterations of sensation undergo notable and conflicting changes as regards their form, situation, extent, duration, and intensity, and that such alterations are easily effected by the subject in response to the suggestions of the examiner.

The bodily functions, for the most part, are sluggishly or indifferently performed, but no more so than want of exercise and restricted diet would easily induce.

Insomnia and distressing dreams are usually complained of; but such subjects, when carefully watched, will be found to sleep well in spite of their protestations to the contrary.

Occurring under the conditions I have already indicated, hysterical neurasthenia should always be the object of our gravest suspicions, for arising from whatever alleged cause, it will be found, under these circumstances, to be largely, if not wholly, dependent upon simulation.

Many recent writers maintain that hysterical neurasthenia seldom or never follows the ordinary accidents of life, but that it frequently declares itself after accidents resulting from railway collision. Erichssen, who has had a large and varied hospital practice for upward of thirty years, states that he has never observed a single genuine case in which the emotional or hysterical state resulted from the ordinary accidents of life, but he states that he has frequently seen it follow cases of railway injury. Thus, except in cases of great concussive violence, he assigns hysterical neurasthenia arising from the milder forms of trauma to the domain of disease simulation. Either must this opinion of this great authority, who has done more to advance the cause of the plaintiff's case than have all other writers, be viewed in a different light than he would have us to do, or else we must accept his views upon this point, and thus agree with him that the state of hysterical neurasthenia arising from the ordinary accidents of life is only the result of a well-maintained simulation. While not coinciding fully with this opinion I believe that where gain is coupled with a mild form of injury the neurasthenia and hysteria which follows are, in nearly all cases, the result of conscious or unconscious simulation.

That the neurasthenic state, when following the milder grades of injury, is regarded as a doubtful state of disease, a partial simulation, as it were, the following quotation from Dana's article on spinal concussion fully attests. He says: "Traumatic neurasthenia is in a measure a real disease, though it is very hard to say how much is real and how much the patient puts on." "It may be, and is often simulated, and it requires the greatest care to detect skilled impostors." He concludes, by saying: "We need more objective tests for the purpose of determining the existence of these subjective neuroses."

In conclusion, I will briefly recapitulate, as follows:

In the absence of other disease manifestation the state of hysterical neurasthenia is ever the same condition, whether rising from well-sustained simulation or from other causes; consequently physical signs and tests are of no particular value, in determining from what cause the condition resulted.

Again, where the subject has some substantial object of gain in view and special disease lesions are absent, hysterical neurasthenia, when long continued, should be regarded with suspicion, and when claimed to have originated from slight injuries or other causes it should, with rare exception, be looked upon as a state resulting from simulation.

Finally, a desire for some form of gain, pecuniary or otherwise, is a strong and important factor oftentimes in the production of hysterical neurasthenia, and a knowledge of its existence is oftener a better means for the detection of simulation and fraud than are the physical signs and tests which are now at our command.

A somewhat spirited discussion, participated in by Drs. Crego, of Buffalo; Angell, of Rochester; Elsner, of Syracuse, and others, followed the reading of the foregoing paper. The opinions expressed by these gentlemen were apparently provoked in part by a misunderstanding of the actual views stated therein, as well as by an evident desire to sustain the commonly accepted doctrines respecting the nature and origin of neurasthenia and hysteria, which, in some degree, are controverted by the views I have advanced.

That the gentlemen who listened to the paper and its discussion may the better understand my real views of the subject treated, and also more easily perceive the error of the criticisms which were elicited upon this occasion, I have presented the original paper, not eliminating therefrom the ambiguity and partial contradictions which under other circumstances I would gladly have done. If the paper shall contribute anything toward the detection of simulation, or in anywise promote our knowledge concerning the apparently diseased states which may result therefrom, especially as regards the production of hysterical neurasthenia, I shall feel more than compensated for my labor, and will willingly bear the criticism which my views have invited, or may hereafter invite.

The Second Japanese Medical Congress was held in Taukiji on April 4th to 10th. Over twelve hundred members were present. It was decided to organize a Japanese Medical Association, with head-quarters in Tokio, and with a branch in each province of the empire. The name of the society is Dai-nippon-i-kwai.

Clinical Department

THE COLD BATH IN COUNTRY PRACTICE.

By JULIUS E. GRISWOLD, M.D.,

PORTLAND, CONN.

I AM an advocate of the water-treatment, as it is called. I believe, in fevers of any sort, and, so far as I can, am endeavoring to uphold it. Every little while I see a good article on this question, from some man who is in practice in the city somewhere, advocating the use of water as the great thing needed in the treatment of fevers to keep down the temperature; but many of them cast a cloud over their articles by saying that the treatment "cannot be carried out to good effect in the country." This, of course, leads many a good man practising in the country to think: "Well, there is no use for me to undertake it." Now, this reasoning is all wrong. Of course, we cannot always command all the things needful and perhaps seemingly necessary to carry out well the systematic treatment as it is laid down by the authorities, but that is no drawback and is no reason why those of us who are so fortunate as to do country practice should stand by and see the patient struggle with a high temperature day after day and week after week without using the great remedy given us by nature. I never allow myself to hesitate one moment when taking hold of such a case, but begin immediately with sponging with cold water, and the higher the temperature the colder the patient likes the water after the first few times applying. At least I find it so, and I think such will be the case with anyone who tries it. Of course, the temperature will not always yield to sponging, and then I resort to the bath, in bath-tub, foot-tub, or ordinary wash-tub, according to the size of the patient and the things I may have to do with. I never have the patients wiped, but wrap them in sheets, and in the case of small children a blanket outside that. Now, in order to carry this out well, one must lay down the law to those who have the care of the case that it must be done often enough to "keep down the fever," and no man should go in for such treatment unless he believes in it and wants to carry it through. When one takes a child, nine months old, with a high fever, from its mother's arms and deliberately puts it into a tub of cold or cool water, the child crying at the time, he must believe in what he is doing or he can't well do it. This I have done, and had the patient tremble and shiver for a few seconds, but under the grateful effect of the cool moisture to the hot skin in a short time the scene changes. The eye grows clearer; the temperature goes down; the skin feels cooler; the wandering moan of the patient, due to the fever, ceases; and after being put in a sheet one has before him a patient more quiet and comfortable than could have been got from any other treatment, I believe. This continues until the fever rises again, when the thing should be repeated, no matter whether it is one hour or ten. Sometimes I have seen sponging with the water do this when the temperature does not go above 104° F. I have taken cases where there had been no sleep for days—nothing but toss and turn, over and over, and where all sorts of anodynes and antipyretics had been given, and in ten minutes after being put into cold water the patient has been asleep. Now, after seeing this it is not possible for any man to convince me that there is any better way. Of course, it is not likely that what I say or write will make any great stir, but I hope that some man who lives where he has to depend on his own judgment will be influenced to realize that he has a mighty power for good in cold water, and will pull off his coat and go at it, believing that he is on the right track. To carry out the idea well one must deal with people who will allow him to do as he chooses, and my way is to refuse to have further to do with the case if I am not allowed to conduct it according as seems best to me. I have found that it is well to leave a thermometer with the mother or wife, if you have no nurse, and instruct them as to its use, telling them that when the mercury rises to a certain point the case is to be sponged or put into a bath. I also find that as soon as those who have the care of the patient see the good effect from the use of the water they learn to depend on it and like it. Also, the patient often will say, if old enough, "Sponge me all over now, and I can go to sleep." Many times in the past fourteen years I have had that reported to me the next morning. Those of us who live in the country should not feel that we can't do this, for it can be done, has been done, and will be done, I believe. Knowlton, of Ann Arbor, Mich., makes a canvas bath-tub that can be set on two ordinary chairs, the bottom, when full of water, resting on the floor. This can be folded, I think, when not in use. Such a tub can be used in any room, and it is not necessary to change all the water every time, only taking out and putting in enough to change the temperature. Of course, everyone must be guided by his own actions as to treatment otherwise, besides the use of water; but I do not believe that medicine has any beneficial effect on the temperature.

AN OPEN SAFETY-PIN SWALLOWED.

By W. D. GROTON, M.D.,

RIVERA, CAL.

DR. SULLIVAN'S report, in the MEDICAL RECORD of August 5th, of "An Open Safety-pin Swallowed," recalls a similar case in my own experience, while practising in Susanville, this State.

On September 16, 1884, I was consulted by a young rancher, whose baby, fourteen months old, had just swallowed an open safety-pin. His wife stated that she had used the pin, a small one, to fasten its bib. A sound of strangling and gagging attracted her attention, and she reached the child just in time to see the pin disappear, open, down its throat. Beyond a little gagging the act seemed attended by no particular difficulty, and when I reached the child she seemed happy and cheerful. I was incredulous as to the pin being open, but the mother was positive, and evidently sincere, stating that the pin didn't "catch good," and she had seen it open in the baby's bib after she had fastened it, but didn't think the child could get it out. I explained to them that the child's effort to swallow the pin had probably closed it, and it would doubtless pass away all right in due time. But even should it be open, a laxative (already prescribed by the neighbors) would do more harm than good, and advised them to trust to nature and await events.

Four days later the father brought me the pin, a small nickel-plated one, still open. He assured me that he saw it himself in the child's diaper, open, just as I saw it. The baby had cried lustily while passing it, but otherwise had not appeared in the least discommoded.

BICHROMATE OF POTASSIUM AS AN EXPECTORANT.

By JOHN E. WEAVER, M.D.,

ROCHESTER, N. Y.

HAVING just been reading the item with this title in the MEDICAL RECORD of August 12th, I wish to add my testimony to the great value of the drug as a remedy in affections of the upper air passages. It is especially useful in both laryngitis and bronchitis, if the secretion is tough and stringy, and hard to raise. On using this remedy there is an almost immediate change, the expectoration is loose and easy, and rapidly disappears, and with it the local trouble which is its cause. I value the remedy still higher in tonsillitis, where the onset is rapid, the tonsils rough, raw, and angry looking, with a muco-purulent secretion exuding from the follicles, and gradually spreading over the tonsils; also in all cases of non diphtheritic pseudo-membranous tonsillitis this remedy is so sure in its effects as to merit the title specific. In treating laryn-

gitis and bronchitis with this remedy one must be careful not to use it too strong—not more than one grain well triturated to three or four ounces of water, a teaspoonful every one-half to two hours, as suggested by Dr. Hunt. But in tonsillitis the finely powdered bichromate should be added to water until the latter is of a dark lemon or light orange shade, and of this a teaspoonful should be given every hour. In these cases the only limit to the administration of the drug is nausea. If this symptom appears, lessen the dose, and, if necessary, the frequency, and no other remedy need be thought of. Tell your patient he will begin to improve by the third dose, and he will. But do not try weak solutions, or powders, or tablet triturates for the tonsillitis, or you may get disappointed. The solution is the form, and the color indicates the strength.

BIRTH IN THE COFFIN.

By H. ROSANSKY, M.D.,

NEW YORK.

In the MEDICAL RECORD of July 29, 1893, is an account of a birth in the coffin.

Ten years ago I was appointed by the Russian Government as country physician to the city of W——. While there I saw a case where a young woman died in full term of pregnancy. On the second day after death the country people of that place took the cadaver and put it in a hot Russian vapor bath at 30° Reaumer for two days, and had an old woman to watch it. On the evening of the second day the abdomen was fully distended and uterine contractions occurred, as if in a live subject, and the child was expelled. The woman also delivered the placenta. In some parts of Russia there is a law that women who have died pregnant shall not be buried until the delivery of the child has taken place.

It is also a custom among the Russian peasants, when a woman dies in the beginning or middle of pregnancy, to put clothes in the coffin for use, in case the woman should deliver herself at the expiration of her full term.

212 CLINTON STREET.

Progress of Medical Science.

Therapeutical Effects and Use of Diuretin. — Dr. Pawinski, of Warsaw, has published a paper on diuretin, or sodio salicylate of theobromine. The drug's therapeutical action was carefully studied by him in a number of cases, of which eleven are adduced with minute details, the series including mitral insufficiency with stenosis, aortic insufficiency, myocarditis and fatty degeneration of the heart, and parenchymatous nephritis. The principal corollaries deduced by the author from his clinical observations may be condensed somewhat as follows: 1. Diuretin does not possess any direct regulating action on the cardiac innervation. Still the drug can remove cardiac arrhythmia in an indirect way—namely, through increasing the secretion of urine, decreasing œdema, and generally relieving such conditions as are apt to interfere with the heart's work. In this regard the remedy proves to be identical with caffeine, which, as Dr. Pawinski's researches have shown, is similarly void of the well-known regulating properties possessed by digitalis. 2. Diuretin increases the arterial tension, which is due to its augmenting the cardiac energy, as well as to stimulating the vaso motor apparatus. The increase, however, is not considerable. At all events, in this particular diuretin is inferior to caffeine, and by far so to digitalis. 3. The sodio-salicylate is undoubtedly endowed with a diuretic action. The increase in the secretion of urine is sometimes very striking, the daily quantity of urine occasionally rising up to five or even six litres. As a rule, the effect becomes pronounced in three or four days after the beginning of the administration, but in some cases the secretion distinctly increases even since the second day (after the patient has ingested a few one-gramme doses of the remedy). As in the case of caffeine, the diuretic action of theobromine is dependent in the first place upon the drug's influence on the vascular system, and in the second upon its intensifying the secretory functions of the renal epithelium. 4. Diuretin is apt to produce an exciting action on the nerve system, which effect is especially manifest in irritable or nervous subjects. In such persons the drug may give rise to general restlessness, tremor of the whole body, insomnia, headache, and aural noises. In old people the remedy may occasionally induce drowsiness. 5. Speaking generally, in chronic diseases of the cardiac muscle diuretin gives better therapeutical results than in cases of organic valvular lesions of the heart or aorta. Still it can prove of excellent service in certain cases of (*a*) mitral incompetence with disturbed compensation in which the patient cannot tolerate digitalis, or in which the latter loses its action; (*b*) aortic valvular disease with increased arterial tension in which digitalis and caffeine are badly borne by the patient; (*c*) valvular mischief associated with intense irritability of the nervous system. In renal affections the therapeutical effects of diuretin are less satisfactory than in the preceding groups of cases. 6. The drug should be given in one-gramme doses, repeated four or five times daily. Sometimes even three grammes a day prove to be sufficient to secure a profuse diuresis. In such cases where a six-days' trial of the drug fails to make any impression on the secretion of urine, a further administration is useless. In some patients even small doses may cause some nausea and vomiting in the beginning; later on, however, the phenomena vanish simultaneously. 7. The best mode of administration is that in solution. The following formula may be used:

℞. Theobromini sodio-salicylici ..... 4 or 6 parts.
Aquæ menthæ piperitæ..... 100.0 parts.
Aquæ destillatæ..... 50.0 parts.
Syrupi simplicis..... 10.0 parts.
M. D. S. To take two spoonfuls every two or three hours.

8. On the whole, theobromine's action resembles that of caffeine. Still the author's clinical experience justifies him to lay down a general rule, and the effect that in cases of an adynamic character caffeine should be resorted to; while in those with predominating erethysm the theobromine salt should be preferred.—*The Provincial Medical Journal.*

Lavage of the Stomach in Cases of Toxic Poisoning. —Experiments carried out by Hitzig, of Halle, have shown that after the subcutaneous injections of morphia in dogs, as well as in human beings, the drug very rapidly makes its appearance in the stomach (*The Medical Press*). For example, when the contents of the stomach have been removed by the stomach-pump, within one or two minutes after an injection, traces of the drug have been found in the gastric contents, and the presence of the drug in that organ probably in this way accounts for the emetic effects so frequently observed in patients after such injections. The result of these experiments goes to show that about one-half of the quantity of the drug injected may be removed by lavage. But if an hour or so be allowed to elapse before lavage is carried out it has been found that the drug has been reabsorbed. Somewhat ingeniously the attempt has been made by Alt to ascertain whether the poison of venomous snakes could be got rid of by these means, and, so far, the experiments in this direction have been satisfactory in proving the utility of the method. Doses of snake poison injected subcutaneously into dogs were rapidly fatal to those animals in which nothing was done, but the same doses were recovered from when lavage of the stomach was carried out for about an hour after the injections. It would seem, therefore, that one of the first steps to take in case of snake-poisoning is to freely wash out the patient's stomach. The difficulty, however, of this treatment would consist in having the stomach-pump handy, and

the opportunity of applying it early enough to secure the best effects from its use. To be of service, not more than a few moments, at the outside, should elapse before it is used—a practical impossibility in the majority of cases of snake-poisoning, unless, indeed, the stomach-pump came to be regularly included among the outfit of persons travelling in districts in which such contingencies are known to occur.

The Action of Cold and Warmth on Muscular Fatigue.—Following up Professor Mosso's researches on the pathology of fatigue, Dr. Patrizi contributes to the journal of the Royal Academy of Medicine of Turin the results of a series of experiments by way of determining the action exerted by cold and warmth on the fatigue of the human muscle. The experiments were made by means of the "ergograph" (Professor Mosso's instrument), and consisted in the execution of a given piece of work—the lifting of a weight by the middle finger of the right hand, either by successive voluntary contractions or by contractions induced by electric irritation. The experiments, moreover, were conducted always at the same hours of the day, and comparison was made of the several tracings which were obtained while the forearm was kept in a bath of hot or cold water. The range of temperature within which the muscles act in executing a piece of work presents no appreciable alteration and is very wide—from 46° to 15° C. This fact Dr. Patrizi recognizes as "providential," seeing the different temperatures at which the muscles of the arm have to undergo fatigue in the ordinary conditions of life. The net result of the experiments goes to prove that with cold the work of the muscle rapidly diminishes—so much so as to become one-fourth of the normal at 15° C., and fifteen times less than the normal at 10° C. On the other hand, above 46° C.—that is, between 46° and 47° C., the maximum limit of supportable heat—work undergoes a slight but constant diminution in all individuals. To explain this fact, confirmed as it is by other observations—a fact, moreover, not to be attributed to the dilatation of the vessels effected by heat and to consequent circulatory disturbance, because otherwise it would be manifested even at temperatures below 46° C.—Dr. Patrizi contends that the blood in the heated muscle is no longer capable of histological exchange, and that the toxic products of fatigue act more energetically on the muscle at high temperatures.—*The Lancet.*

The Spleen in a New Rôle.—The unfortunate spleen has always been the butt of transcendental suggestions and speculations in respect to its functions. Just in the same way as every ophthalmic surgeon seems to think that he ought to invent a new ophthalmoscope, so every physiologist—and the infection appears now to have spread to pathologists—seems to be impressed with the belief that he is not doing his duty in his generation unless he makes the functions of the spleen the subject-matter of some investigations. What an attraction always does environ a mystery? The poor spleen has a mystery all to itself! By no will of its own it finds itself "put away" in the abdomen, with a most uneasy, restless organ for its companion—the stomach. But nobody has ever been able to find out what it does, or what it is there for. The consequence is that the spleen has always been the subject of unenviable gossip, and because it happens to have the habit of "distending" after the stomach becomes loaded with food, and has large arteries and veins, the idea has been arrived at that it must be a sort of dressmaking and millinery establishment for the red blood-cells, which feel somehow compelled to pay it a special visit during the feeding times of the day. But a new function has been found for the spleen. We are now told that the organ is a necessary factor in the production of immunity from infectious disease. Guinea-pigs, for example, from which the spleens had been removed, were found to become permanently incapable of being rendered immune to the virus of tetanus. Hence the idea is that the spleen becomes the store-house of the various antitoxines produced during the course of the infectious diseases. In other words, we are asked to assume now that the organ has another department in its vast establishment, namely a chemical laboratory, with many poisons, all labelled and ready for use, and that when any impertinent microbes pay it a visit, the special antitoxic bottle is taken down, and the spleen gives them a dose of poison, just in the same way as a chemist poisons the venerable pug-dog of his wealthy customer.—*Medical Press.*

Urogenital Blennorrhœa in Children.—In the *Journal of Cutaneous and Genito-Urinary Diseases*, July, 1893, Dr. Henry Koplik has a paper upon this subject, with the following suggestions as to treatment. New methods of procedure, as the use of thalin, iodoform, bougies, injections, silver applications, have been tried by the author with the same success that others have obtained. They fail to shorten the course of the disease in any way. The disease drags on six, eight, or even twelve weeks. The following course has been adopted in all cases, on the principle that the prolonged discharges from the parts are aided by the anatomical nature of the vagina and os uteri. The parts being cleansed with 1 to 5,000 sublimate, externally, a Tuttle urethral speculum is introduced into the vagina, and the canal is thoroughly douched with the sublimate, 1 to 5,000. The parts are then dried with a uterine applicator and cotton, and a ten per cent. solution of nitrate of silver is carried upon a cotton applicator into the vagina up to the cervix, and the parts thoroughly painted with the same. The vagina is again douched with 1 to 5,000 sublimate, and the speculum withdrawn. The nitrate of silver is first applied daily, then every other day. In a few days the discharges cease to be profuse. In acute cases the first few applications cause some bleeding, owing to erosions in the vagina. But this ceases after a time. The urethra in girls is so small, and the treatment of it by present methods causes so much pain, that it is better to let it entirely alone.

Pathology of Paralysis Agitans.—Dr. Ketscher has published a paper dealing with this much disputed subject. The cases of paralysis agitans, with reference to their pathological anatomy, are divisible into two classes—those in which the examination has furnished negative results, and those in which various changes have been found in the nervous system, such as hyperplasia of the connective tissue and neuroglia of the spinal cord, alterations in the nervous tissue itself and vascular changes. Similar changes have been described as occurring in the medulla and pons. Three cases of undoubted paralysis agitans have been investigated by Ketscher. The nervous system, central and peripheral, was examined, and in all three cases changes were found in both regions. The nervous structures showed atrophy, the ganglion-cells of the brain were deeply pigmented and altered in form, the nerve fibres, both in the peripheral nerves and in the spinal cord, were degenerated and had in some instances disappeared, while the muscular fibres were also atrophied or degenerated. The neuroglia was thickened, especially around the vessels, and mostly in the posterior and lateral columns. The vessels also were altered, their walls thickened, and there were miliary aneurisms and small hemorrhages present. Similar changes, but slighter in degree, were found as senile changes in patients not the subjects of paralysis agitans. Ketscher concludes, with Borgherini and others, that paralysis agitans is only the expression of an extreme and premature senility of the nervous system, and he is of the opinion that the primary changes are in the vessels, those in the nervous structures being secondary.—*Journal of the American Medical Association.*

Mineral Baths during Normal and Pathological Menstruation.—Dr. Makawejew gives his experience with mineral baths during menstruation. His position as resident physician at the baths of Staraja Russa in Rus-

sia, which resemble those of Kreuznach in character, has given him opportunities to study this question. (*Boston Medical and Surgical Journal*) In common with all bath physicians, so-called, he looked upon the onset of menstruation as a signal for ceasing the administration of baths, but has gradually, as a result of his experience and experiments, come to doubt the truth of the theory that they are harmful, and even to believe that they are of distinct benefit at the time of the catamenia. Experimentally, he shows that saline or mud baths at blood heat cause a rise of temperature at the outside of the body, and a lowering inside; warmer baths cause a rise of both external and internal temperature, the first more than the last, and colder, a fall of both temperatures, especially the inner. The explanation is that the saline or mud-baths act as an irritant to the skin, cause a dilatation of the superficial blood-vessels, and hence a diminished quantity of blood in the internal organs. The result of this would be, in the case of menstrual disorders, a diminution of the amount of blood in the uterus, hence a diminished rather than an increased menstrual flow. Practically, he found this to be the case. To sum up his results, which he gives in a good deal of detail, he treated 149 patients with baths during menstruation. Of these 115 menstruated regularly and the regularity was not affected; 34 were irregular and became regular during the treatment. Where the catamenia lasted the normal time there was no effect; where it was prolonged (in 69 cases), it was shortened by the treatment. In cases of metrorrhagia the amount was usually materially diminished. Dysmenorrhœa was present in 90 cases; under the influence of the baths it disappeared in 60, and in 28 it was lessened. There was general nervous disturbance and hysterical condition in 87 cases, which disappeared under the treatment in 58, and was much less in 29. The importance of these observations from a gynecological point of view is evident, and the author claims that we have in baths rightly administered a means of controlling uterine congestion and favorably influencing the symptoms which are caused by it.

Extirpation of the Uterus without Ligatures.—Dr. Landau discards all ligatures and sutures in this operation, and trusts entirely in place of them to the action of pressure forceps. All instruments are entirely of metal, and they are previously sterilized by boiling. The crumbly parts of the cancerous mass are first removed with the curette, and the parts occupied by them are energetically rubbed with a three per cent. solution of carbolic acid. During the operation nothing but boiled water rendered alkaline by soda is used for irrigation. A careful examination must be made to determine whether the uterus can be readily drawn down, or whether it is fixed by any morbid process to its normal level. If the former, the operation is easy, and generally completed in a very short time. If the uterus is fixed, however, the paracervical tissues must be separated from their attachments; care must be taken not to attempt too forcibly, either by pressure from above or by dragging by forceps from below, to bring the uterus down, as the tender broad ligament may easily be torn through, and fatal hemorrhage set up, or an abscess burst. The freed uterus must be left in position, and the operation must be proceeded with, making use of a large number of small forceps. The operator pushes his finger behind the ligament, and the assistant in front of it, and in this way a path is made for the passage of the forceps without danger to any important part. If the fixation is greatest on one side it is best to commence with the diseased one. The operator advances upward step by step, so that in case of complication by ovarian tumor or tubal cysts, these gradually come into view, are punctured or incised to lessen their bulk, lateral forceps are then put on, and the parts cut away. In case of difficulty in bringing the parts all into view, the speaker proposed to remove the uterus piecemeal until it was all got away. The after-treatment was quite simple, and alike in all cases. The forceps were removed after from thirty-six to forty-eight hours, but without altering the position of the patient. While the forceps remain on it is best to leave a catheter in the bladder. If the pain is great, morphia may be given in sufficient doses. After removal of the forceps a vaginal douche may be cautiously given thrice daily, weak disinfectant and deodorant solutions being the best, such as potass. permang., sod. bibor., or boric acid and salicylates. On the third day the secretion from the stump increases, and is frequently mixed with shreds of tissue, and ceases then very gradually. He believes that the dangers of hemorrhage and sepsis are diminished by this method of operating, and that cases that are positively "inoperable" by the ligature method can be treated successfully in this way. He has only seen secondary hemorrhage in one case, in which the forceps were removed at the end of twenty-four hours. If the forceps are opened carefully, and so removed, there is no danger of injuring the parts. He has seen hemorrhage in two cases after the seventeenth day, but, as he says, hemorrhage such as that might equally easy come on if ligatures were used. As showing the rapidity with which the operation could be completed, he stated that he had done it once in four minutes, and once in six and a half minutes, in each case without undue haste.—*Medical Press.*

Sarcoma of Tonsil Removed by External Incision.—At a late meeting of the Clinical Society of London (*The Lancet*) Mr. Raymond Johnson read the notes of a case of lympho sarcoma of the tonsil removed by external incision, with preliminary ligature of the external carotid artery. The patient was a woman, aged fifty-three, whose symptoms were of about six months' duration. The growth, which occupied the position of the left tonsil, was oval in shape and measured one inch and a half by seven eighths of an inch in its two diameters; its surface was covered with short papillary processes. A mass of soft glands was situated below and behind the angle of the jaw, and other smaller glands lay along the posterior border of the sterno mastoid. Notwithstanding the somewhat extensive nature of the glandular infection it was decided to operate. This was done on June 20, 1892. The incision extended from the lobule of the ear to the level of the hyoid bone, and from it an incision was carried to the extent of one inch along the anterior border of the sterno mastoid. The mass of glands was easily dissected out and then a silk ligature was applied to the external carotid artery below the origin of the lingual. The lateral wall of the pharynx was next freely exposed and the primary growth was excised, together with a margin of healthy tissue around it, by means of scissors. The hemorrhage was very trivial. The skin incision was sutured with silk and drained at the lower angle, no attempt being made to close the opening in the wall of the pharynx. Rectal feeding was adopted for two days after the operation. The patient progressed without a bad symptom except some suppuration in the lower part of the wound. On July 14th, the enlarged glands behind the sterno mastoid were excised through an incision along the posterior border of the muscle. The patient was discharged on July 23d. In December a small gland was excised from beneath the scar behind the jaw, and other very small ones were felt in both sides of the neck. The patient's general health had much improved and there was no recurrence in the pharynx. Reference was made to the other modes of removing tumors of the tonsil. The incision made was very similar to the one made by Cheever and Golding Bird. It was urged that the application of a ligature to the external carotid artery, which added very little to the difficulty or length of the operation, was a more satisfactory mode of dealing with hemorrhage than such methods as the performance of a preliminary tracheotomy or the removal of the growth with the cautery. The patient, who was exhibited eight months after the operation, was in good general health and free from recurrence in the mouth, but there were some slightly enlarged glands in both sides of the neck.

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POISONING BY DIACHYLON LEAD PLASTER.

IN a recent issue of the *British Medical Journal*, Dr. F. M. Pope narrates the history of two cases, in both of which a fatal result supervened. Poisoning by this compound is very unusual, but it seems that in some of the English manufacturing towns it is credited with the power of preventing conception, and with emmenagogue properties, and is used to procure abortion. Dr. Pope's first case was that of a woman, aged thirty-three, who complained of sharp pain in the right iliac region, constipation, and vomiting after eating. Medical treatment relieved these symptoms, but the abdominal soreness remained with a tendency to costiveness. The skin and conjunctivæ became yellow and the tongue coated. She passed six weeks without menstruating. A blue line appeared on the gums, and the muscles of the hands grew weak and tremulous. The reflexes were normal but weak. There was no sensory disturbance. The patient drank water from a faucet connected with the city pipes.

A diagnosis of lead-poisoning was made and potassic iodide ordered. Three days later she grew comatose and died. The autopsy showed the bowels to be contracted, but nothing else could be noted. The brain appeared perfectly healthy. No positive clew could be found as to the source of the lead. The water was tested with negative results.

Quite a long time after it was learned that the woman had told someone that she had been advised to take diachylon for the purpose above named.

In about two years a second patient came under observation. She was twenty-two years of age and anæmic. The skin and conjunctivæ were of a yellowish tint. She seemed of weak intellect, though not formerly so; had a fatuous expression, and would not speak above a whisper. She complained of pain in abdomen, principally in the right iliac fossa, and attributed her symptoms to a miscarriage which occurred in May last. Her health before her marriage, three years since, was good. She had had two children, both of whom died in infancy, and two miscarriages. At the last, in May, 1892, she lost a good deal of blood, and since that time had been suffering from pains, and had had no return of menstruation. There were no abnormal signs in the lungs, heart, or abdominal viscera, and no signs of syphilis. There was pain on pressure over the hypogastrium. The bladder was distended. On vaginal examination nothing abnormal was found. The rectum was loaded with fæces. The urine (specific gravity 1015) was of a dark reddish color, but contained no blood, albumin, bile, or sugar. The limbs were weak, but she could move them all; the deep reflexes absent; sensation was unimpaired. The bowels were relieved by enema, and the urine was then passed naturally. After remaining in about the same condition for a week, she had an epileptiform convulsion on the night of August 8th, six days after she was first seen. The tongue was bitten; the bladder found again distended. On the morning of August 9th there was complete loss of power in the arms and legs, and fæces were passed involuntarily. The condition was thought to be due either to tuberculous meningitis or a cerebral tumor. On August 10th she had several more convulsive attacks, was continually crying out, and rolling her head from side to side. The paralysis had extended to the diaphragm; this caused suspicion that her condition might be due to peripheral neuritis, and inquiry was made from the friends as to the possibility of diphtheritic poisoning, but no history of sore throat could be elicited. The faradic current was applied to the diaphragm, but she died at 8.45 A.M., on August 11th.

At the autopsy the intestines were found contracted and contained considerable yellowish, sticky fluid. The internal generative organs were normal, and no corpus luteum was found in either ovary. Some weeks before her death she acknowledged having taken diachylon, and, furthermore, that she had done so many times previously, with the end in view of inducing abortion.

These cases are of interest, not so much from their symptomatology as from the fact that death was caused by a drug not generally given internally; but the circumstances surrounding these two cases unquestionably suggests its frequent use among the women of that locality.

Dr. Pope makes an interesting suggestion as to how diachylon came to have the reputation which led to its internal employment. Diachylon, he reminds us, is a plaster as old as Galen's time, and older, but it had not then its present simple constitution. It contained, in addition to litharge, marshmallow, linseed, and fenugreek, and may have had this composition till comparatively late times. Hippocrates recommends lint-seeds among other things as an emmenagogue, and Pliny and many others say that fenugreek is an ecbolic. Old superstitions die hard. Is it possible that we are dealing with one dating from the time when diachylon contained these drugs, and that it then had a reputation as an ecbolic which has been transferred to its successor in the pharmacopœia? There is another plaster mentioned by Paulus Ægineta similar to diachylon, containing marshmallow, linseed, fenugreek, and in addition rosin, tears of ivy, and turpentine, but no litharge. Is it possible this was also known as diachylon, and, being comparatively harmless, was used as an emmenagogue?

The Eyes of College Students.—The statistics of the senior class at Yale College this year, furnished by the class history, raise the question as to the effects of hard study on the eyes. Out of a class of 185 there are 54 who wear glasses, and of these 25 have taken to their use since entering college. The average age of the class is about twenty-two years, and yet nearly one third of them are compelled already to reenforce their eyes.

"THE CITY OF MAGNIFICENT HOSPITALS."

Much comment has been excited by our modest portrayal of New York as the "City of Magnificent Hospitals." Some of our English brethren feel alarmed over such prodigious displays of philanthropy. The *Medical Press and Circular* in particular holds out this warning. It says:

"An American contemporary proudly asserts that New York might well be called the 'City of Magnificent Hospitals.' The reason which has led to this outburst of praise is the fact that three new large hospitals are in process of erection in the city, while a fourth is shortly to be commenced. No other city in the New World, we are informed, 'can compare in extent with the palatial character and the scientific completeness of its hospital buildings,' and 'when these various new structures are completed they will form, taken in connection with the other institutions, a magnificent tribute to human philanthropy and medical science.' But it is quite possible to have too much of a good thing, even of philanthropy. What have the general practitioners, or, as they are called in the States, 'physicians,' to say upon this subject? Can they possibly hail with acclamation the foundation of four new hospitals in New York, when the establishment of each institution of the kind must conceivably reduce the number of their private patients? New York may be a 'city of magnificent hospitals,' but whether the policy has been a sound one which has made it so is entirely another matter. Upon the whole, quite possibly the profession generally would be prepared to dispute the expediency of all this lavish expenditure upon hospitals; both on professional as well as on public grounds, the facilities for charitable relief should be kept within due bounds."

The *Press* has only expressed sentiments which have appeared in these columns. But a good many rich men like to amuse themselves and exploit their wealth and generosity by supporting hospitals. We do not know of any corporation which has ever refused their money, or of any physician who has declined to accept service with the managing boards. And so we do not see but that the building of great hospitals will go on, until at last there is room for almost every one. Then there will perhaps be a reaction, and the public will gradually learn that it is best to pay for what they get, even if it is a surgical operation.

A TWICE-TOLD TALE.

Every now and then there is a recrudescence of learned articles regarding the antiquity of syphilis. Sometimes the savant points his learned finger toward Columbus, and describes the curse as originating among the aborigines of this country. At other times he sets his face toward the East, and then we read painful quotations from Job and the Psalmist, with admiring comments on the wisdom of Moses. A new impulse to prehistoric syphilography has been given by the book of Dr. Buret on "Syphilis in Ancient Times." Dr. J. T. Jells gives us some interesting facts taken from this treatise (*Journal of the American Medical Association*). Dr. Buret has greatly enlarged the list of the afflicted heroes of the past, being helped to his knowledge by the later discoveries of archæologists. We learn that syphilis antedates the year 1921 B.C., that being the time of Abram; the story we are told is that Sarah had the disease, and gave it to Pharaoh when the patriarch and his wife visited Egypt. Nimrod, the mighty hunter, was also a victim, as was one of his friends. Coming back to the scriptures we are told that David was surely a victim of syphilis, and that epidemics of the disease prevailed among the Israelites. The Chinese are credited with having been the first at nearly everything, and it is affirmed that syphilis prevailed among them 2500 years B.C. But more than all this, syphilis is accredited by Buret to prehistoric man, and the disease has been recognized on the bones of men who died 60,000 years ago!

All this is, as a contemporary daily is fond of saying, mighty interesting, the only trouble being that it isn't so. The learned gentlemen are all dealing in speculations which have no value when the evidence is strictly weighed.

THE TONGUE IN INFLUENZA.

Faisans recently made an interesting communication to the Société médicale des Hôpitaux, concerning the tongue in grip. Its special characteristic is an opaline tint of bluish white, sometimes uniformly distributed and again appearing in patches. This porcelain appearance of the tongue is often the first definite sign of grip, and accompanies the vague malaise that precedes the disease. It always appears during the first two or three days. As long as the condition is present, the patient is by no means well, though recovery may be apparent. Complications may arise as long as the opaline tint remains. The tongue is not altered in form or dimensions, nor is it ever dry unless some phlegmonous inflammation is imminent or has already begun. If there is a catarrh of the digestive tract, and the tongue becomes heavily coated, the opaline tint is still visible about the borders, and may show through the coating in places. Cathartics may help clear up the furred tongue, but its characteristic porcelain effect remains. In pneumonia complicating grip, the tongue dries up without effect upon the opaline tint upon its borders. In a case of supposed meningitis in a child, the peculiar appearance of the tongue served to establish the diagnosis of grip, a diagnosis verified by subsequent events. Sometimes there is lingual desquamation, as in scarlet fever.

Ustilago Maidis.—Blair (*Therap. Gaz.*, May, 1893) draws attention to ustilago maidis (maize ergot) as a valuable drug in obstetric practice, and one which far excels ordinary ergot as an aid in tedious labor. It is prepared from maize affected with the disease known as "corn smut," and has been introduced into practice in the form of a fluid extract. The author has tried this preparation in a dozen cases of labor, with in most cases satisfactory results. The dose employed was from twenty to thirty minims. His general conclusions are as follows: (1) In those cases in which the pains were continuous, the effect of the drug was to make them intermittent and more easily borne. (2) Where natural labor pains were present and the extract was administered, the uterine contractions were increased in strength and labor hastened. (3) The effects were more favorable after considerable dilatation of the cervix had taken place, though the action of the drug was tested at all stages. In no instance were any bad effects produced.

News of the Week.

Yellow Fever.—The third case of yellow fever has occurred at Brunswick, Ga., but it is not believed that the disease will become epidemic, although many people have left the town in anticipation of that event. No cases have occurred at Port Tampa, which was recently visited by an infected ship.

A Definition of Temperance.—At the recent Anti-alcohol Congress held at The Hague, a number of speakers contended for a moderate use of alcohol, defining moderation as the consumption of an ounce to an ounce and a half in the twenty-four hours.

Dr. Hiram Hubbs, of Amsterdam, N. Y., died recently at the age of seventy-three. He was graduated from the Albany Medical College, but soon gave up the practice of medicine and devoted his energies to farming.

Microbes in Dust.—Microscopic examinations of dust from the streets of Naples have shown the presence of immense numbers of micro-organisms, among them the bacilli of tetanus and of tuberculosis.

Pan-American Medical Congress.—The following papers are to be read in the several sections:

Section on Diseases of the Mind and Nervous System.—Formal Address, by Dr. C. H. Hughes, Executive President of the Section, of St. Louis, Mo.; "The Gangliated Nervous System and some of its Diseases," by Dr. Charles K. Mills, of Philadelphia, Pa.; "The Traumatic Psychoneurosis, its Relations to Paranoia, Epilepsy, and Paretic Dementia," by Dr. J. G. Kiernan, of Chicago, Ill.; "The Urine in Sexual Neurasthenia," by Dr. Charles L. Dana, of New York, N. Y.; "Suppurative Meningitis and Myelitis, with Exhibition of Specimens," by Dr. Græme M. Hammond, of New York, N. Y.; "The Disease of Inebriety and its Treatment," by Dr. T. D. Crothers, of Hartford, Conn.; "Chorea," by Dr. Charles Henry Brown, of New York, N. Y.: "Study of the Temperature in Twenty-five Cases of General Paralysis of the Insane," by Dr. Frederick Peterson, of New York, N. Y.; "The Present Status of Infantile Cerebral Palsies," by Dr. Frederick Peterson, of New York, N. Y.; "The Successful Management of Inebriety without Secrecy in Therapeutics," by Dr. C. H. Hughes, of St. Louis, Mo.; "Erotopathia: Morbid Erotism," by Dr. C. H. Hughes, of St. Louis, Mo.; "The Medical Treatment of Insanity," by Dr. Edward C. Mann, of Brooklyn, N. Y.; "Address of Welcome" (in Spanish), by Dr. William A. Hammond, of Washington, D. C.; "Where the New-born Baby Learned to Suck," by Dr. C. A. F. Lindorme, of Atlanta, Ga.; "Treatment of Nervous Diseases in Sanitariums," by Dr. James K. King, of Watkins, N. Y.; "The Influence of Alcohol upon the Human Powers and Constitution," by Dr. T. L. Wright, of Bellefontaine, O.; "The Treatment of Cerebral Hemorrhage," by Dr. D. R. Brower, of Chicago, Ill.; "Neuro-angio Paralysis and its Relation to Paretic Dementia," by Dr. Frank C. Hoyt, of Clarinda, Ia; "Civil Service in American Hospitals for the Insane," by Dr. S. V. Clevenger, of Chicago, Ill.; "La Renguera," by Dr. Daniel Guiterrez y Arango, of Cali, Cauca, Colombia; "Paralisis Espastica Cerebral de los Adultos," by Dr. Manuel Carmona y Valle, of City of Mexico, Mexico; "On the Prognosis of 'Railway Spine,'" by Dr. F. X. Dercum, of Philadelphia, Pa.; "The Nervous Symptoms of Storms," by Dr. Curran Pope, of Louisville, Ky.; "A Peculiar Type of Vaso-motor Neurasthenia (The Pulsating Disease), with Report of and Operation for the Same," by Dr. Charles L. Dana, of New York, N. Y.: "Curability of Inebriety," by Dr. J. G. Reed, of Elmwood Place, O.; "Nutrition against Stimulation," by Dr. W. H. Maxon, of St. Louis, Mo.

Papers by Dr. William A. Hammond, of Washington, D. C.; Dr. Theodore D. Diller, of Pittsburg, Pa.; Dr. E. C. Seguin, of New York, N. Y; Dr. S. Weir Mitchell, of Philadelphia, Pa.; Dr. E. C. Spitzka, of New York, N. Y.; Dr. O. T. Sherman, of Boston, Mass.

Section on Diseases of Children.—"The Most Successful Method of Treating Croup," by Dr. J. O'Dwyer, of New York, N. Y.; "The Teaching of Hygiene in Colleges and Public Schools," by Dr. F. Forchheimer, of Cincinnati, O.; "Clinical Aspects of Infant Feeding," by Dr. E. P. Davis, of Philadelphia, Pa.; "Clinical Notes of Eruptive Fevers in Southern California," by Dr. W. A. Edwards, of San Diego, Cal.; "Infant Feeding," by Dr. T. M. Rotch, of Boston, Mass.; "The Time and Mode of the Introduction of the Exotic Diseases of Children into America," by Dr. J. Lewis Smith, of New York, N. Y.; "Physical Training of Public-school Children," by Dr. J. Gardiner Smith, of New York, N. Y.; "Palmus," by Dr. L. C. Gray, of New York, N. Y.; "Enteroclysis in Intestinal Diseases of Children," by Dr. E. E. Graham, of Philadelphia, Pa.; "Bacteriological Diagnosis of Diphtheria," by Dr. H. C. Ernst, of Boston, Mass.; "Aphasia in Children," by Dr. F. Peterson, of New York, N. Y.; "On Milk," by Dr. Henry D. Chapin, of New York, N. Y.; "The Race Factor in Gastro-intestinal Disease," by Dr. J. W. Byers, of Charlotte, N. C.; "The Treatment of Empyema in Early Life," by Dr. A. Brothers, of New York, N. Y.; "A Contribution to the Knowledge of Acute Primitive Entero colitis during Low Infancy," by Dr. Joaquin L. Dueñas, of Havana, Cuba; "The Production of Cow's Milk Designed for Infant Feeding," by Dr. Henry L. Coit, of Newark, N. J.; "The Proper Mode of Preventing and Treating Diphtheria, Based on Recent Discoveries Relating to its Etiology and Pathology," by Dr. J. Lewis Smith, of New York, N. Y.; "The Normal Præcordia in Infancy and Childhood," by Dr. H. B. Whitney, of Denver, Col.: "Intestinal Parasites Observed in the Island of Porto Rico," by Dr. Antonio Amadeo, of Manuabo, Porto Rico; "Immediate Percussion among Children," by Dr. Olinto, of Porto Algre, Brazil; "Feeding of Children in Cuba during Infancy," by Dr. Joaquin L. Dueñas, of Havana, Cuba; "Pertussis as it Exists in the Rocky Mountains," by Dr. John M. Keating, of Colorado Springs, Col.; "Types of Gastro intestinal Disease Prevalent in New York," by Dr. Floyd M. Crandall, of New York, N. Y.; "Insane Disorders of Childhood," by Dr. J. Madison Taylor, of Philadelphia, Pa.; "Cirrhosis of the Liver in Children," by Dr. William A. Edwards, of San Diego, Cal.; "The Artificial Feeding of Children in Mexico," by Dr. J. Ramon Icasa, of City of Mexico, Mexico.

Paper by Dr. J. B. Deaver, of Philadelphia, Pa.

Section of Pathology.—"Abscess of the Liver," by Dr. James E. Reeves, of Chattanooga, Tenn.; "Notes on Three Years' Work in the Pathological Laboratory of the Charity Hospital of New Orleans," by Dr. Henry Dickson Bruns, of New Orleans, La.; "Influenza," by Dr. Ramon Guiteras, of New York, N. Y.; "A Bacteriological Observation on the Waters of the Harbor of Havana," by Drs. Acosta and Grande, of Havana, Cuba; "Pathological Histology of Yellow Fever," by Drs. Acosta and Grande, of Havana, Cuba; "Investigations Concerning Malaria," by Drs. Coronada and Madau, of Havana, Cuba; "Bacteriological Studies in Havana," by Dr. Davalos, Havana, Cuba; "Investigations upon the Carbuncle in Cuba," by Dr. Coronado, of Havana, Cuba; "Observations on the Anti-rabic Treatment of Pasteur," by Dr. Acosta, of Havana, Cuba; "Etiology of Cancer, with Especial Regard to the Protozoa Parasites of Cancer," by Dr. Allen J. Smith, of Galveston, Tex.; "Contribution to the Study of Cancer," by Dr. Wernicke, of Buenos Ayres, Argentine Republic; "Medical Geography of Porto Rico," by Dr. A. J. Amadeo, of Maunabo, Porto Rico; "Yellow Fever of the Creoles and the Negroes," by Dr. A. J. Amadeo, of Maunabo, Porto Rico; "Theories of Inflammation," by Dr. José Torres Matos, of Havana, Cuba; "L'État de Hyperexcitabilité du Nerf phrénique dans le Beriberi," by Dr. J. B. Da Lacerda, of Rio de Janeiro, Brazil; "Paludismo," by Dr. Antonio José Amadeo, of Maunabo, Porto Rico; "Pathology at the Institution for Feeble-minded Children, at Elwyn, Pa.," by Dr. Henry W. Cattell, of Philadelphia, Pa.; "The Epithelio-genetic Origin of Cancer," by Dr. Joseph McFarland, of Philadelphia, Pa.; "Cancer," by Dr. Wernicke, of Buenos Ayres, Argentine Republic (Formal Discussion, with Professor Allen J. Smith as Co-referee); "Cancer," by Dr. Joshua M. Van Cott, of Brooklyn, N. Y.; "Cancer," by Dr. Joseph McFarland, of Philadelphia, Pa.; "Yellow Fever," by Drs. Acosta and Grande, of Havana, Cuba (Formal Discussion, with Dr. A. J. Amadeo, of Porto Rico, as Co-referee); "Practical Demonstration of the Methods in Pathological Histology," by Dr. James E. Reeve, of Chattanooga, Tenn.; "Practical Demonstration of the Methods in Photography Applied to Pathology," by Dr. William M. Gray, Army Medical Museum, Washington, D. C.; "Practical Demonstration of Methods in Bacteriology," by Dr. J. J. Kinyoun, U. S. Marine Hospital Service, Washington, D. C.; "The Third Blood Corpuscle as a Pathological Product," by Dr. R. L. Watkins, of New York, N. Y.; "On Cholera," by Dr. Herman M. Briggs, of New York, N. Y.; "Pathology of Pelvic Inflammatory Trouble," by Dr. Joseph Price, of Philadelphia, Pa.

Papers by Dr. William Henry Welch, of Baltimore, Md.; Dr. W. T. Councilman, of Boston, Mass; Dr. E. O. Shakespeare, of Philadelphia, Pa.; Dr. G. F. Nuttall, of Baltimore, Md.; Dr. William Hughes, of Philadelphia, Pa.; Dr. W. J. Carter, of Philadelphia, Pa.

Section on Therapeutics.—"The Treatment of Scarlet Fever by Chloral Hydrate," by Dr. James C. Wilson, of Philadelphia, Pa.; "A Plea for Physiological Remedies," by Dr. Simon Baruch, of New York, N. Y.; "Treatment of Chronic Catarrh and Allied Conditions of Lowered Hydrochloric Acidity," by Dr. D. D. Stewart, of Philadelphia, Pa.; "The Physiological Actions of Alcohol," by Dr. David Cerna, of Galveston, Tex.; "The Treatment of Neurasthenia, with Special Reference to the Best Cure," by Dr. F. X. Dercum, of Philadelphia, Pa.; "The Advantages of Amorphous Phosphorus over the Officinal Form," by Dr. E. I. Richardson, of Philadelphia, Pa.; "Venesection in Treatment of Engorgement and Dilatation of Right Side of the Heart," by Dr. I. E. Atkinson, of Baltimore, Md.; "The Use of Nitroglycerine in Arterio-sclerosis," by Dr. T. G. Ashton, of Philadelphia, Pa.; Formal Address, by Dr. Hobart A. Hare, Executive President, of Philadelphia, Pa.; "The Philosophy of Therapeutics," by Dr. L. B. Anderson, of Norfolk, Va.; "The Antipyretic Action of Alcohol," by Drs. A. B. Simmons and R. J. Winn, of Savannah, Ga.; "Some Views Regarding the Philosophy of Drug Action," by Dr. J. W. McLaughlin, of Austin, Tex.; "The Treatment of Leprosy," by Dr. Richard H. L. Bibb, of Satillo, Mexico; "The Clinical Import of Kumyss," by Dr. J. Mount Bleyer, of New York, N. Y.; "The Treatment of Exophthalmic Goitre based on Forty-five Consecutive Cases," by Dr. A. D. Rockwell, of New York, N. Y.; "Étude sur un Moyen d'Assurer l'Efficacité du Copaiba dans la Médication suppressive de la Blennorrhagie Uréthrale," by Dr. L. T. C. Lamothe, Port au Prince, Hayti; "Action Physiologique de quelques Plantes Brésiliennes de la Famille des Menespermacies," by Dr. J. B. Da Lacerda, of Rio de Janeiro, Brazil; "Une Plante Convulsivante du Brésil," by Dr. J. B. Da Lacerda, of Rio de Janeiro, Brazil; "Pathology and Treatment of Gout," by Dr. James Tyson, of Philadelphia, Pa.; "Contribution to the Therapeutics of Yellow Fever," by Dr. Pedro Peñuelas, of Havana, Cuba; "Some Points in the Treatment of Uric Acid Diathesis," by Dr. F. E. Stewart, of Watkins, N. Y.; "A Contribution to the Treatment of Diabetes Mellitus," by Dr. Solomon Solis-Cohen, of Philadelphia, Pa.; "The Value of the Bath in some Sthenic Conditions, particularly Typhoid Fever," by Dr. Simon Baruch, of New York, N. Y.; "The Indications which should Govern the Employment of the Several Anæsthetics," by Dr. H. C. Wood, of Philadelphia, Pa.; "Electricity, Its Use in Medicine," by Dr. F. Schavoir, of Stamford, Conn.

Papers by Dr. Edward Randall, of Galveston, Tex.; Dr. Edward Martin, of Philadelphia, Pa.; Dr. Fernando Altamirano, of City of Mexico, Mexico.

Section on Dermatology and Syphilography.—"American Dermatology," by Dr. A. H. Ohmann-Dumesnil, Executive President of the Section, of St. Louis, Mo.; "Lupus, its Excision, with Reports of Cases," by Dr. B. Merrill Ricketts, of Cincinnati, O.; "Glycosuria as an Additional Symptom in the Neurotic Origin of Dermatitis Herpetiformis," by Dr. James M. Winfield, of Brooklyn, N. Y.; "A Statistical Record of Nearly Five Thousand Cases of Small-pox," by Dr. William M. Welch, of Philadelphia, Pa.; "The Treatment of Diseases of the Nails," by Dr. J. V. Shoemaker, of Philadelphia, Pa.; "Primary Dystrophies of the Skin," by Dr. E. Preble, of Cleveland, O.; "Rhinophyma," by Dr. William Gottheil, of New York, N. Y.; "Rhinophyma," by Dr. A. H. Ohmann Dumesnil, of St. Louis, Mo.; "Frambœsia," "Yaws," by Dr. George Edmund Pierez, British West Indies; "The Question of the Communicability of Leprosy," by Dr. Beaven Rake, of Trinidad, West Indies; "Some of the Rarer Tropic Lesions in

Leprosy," by Dr. Beaven Rake, of Trinidad, West Indies; "Beriberi en el Cauca," by Dr. Evaristo Garcia, of Cali, Cauca, Colombia; "Lepra en el Cauca," by Drs. Evaristo Garcia and Adolfo Tenoris, of Cali, Cauca, Colombia; "El Caratea," by Drs. Juan N. Wallis O., and Alfredo Garces y Domingo, of Arboleda, Colombia; "A Case of Recurrent Pruritus," by Dr. A. H. Ohmann-Dumesnil, of St. Louis, Mo.; "On the Etiology of Eczema," by Dr. A. Ravogli, of Cincinnati, O.

Paper by George Holsten, of Brooklyn, N. Y.

Section on Laryngology and Rhinology.—"The Relation of Diseases of the Rectum to Nasal Catarrh," by Dr. W. John Harris, of St. Louis, Mo.; "Electrolysis for the Relief of Certain Morbid Conditions of the Nasal Septum," by Dr. James E. Newcomb, of New York, N. Y.; "Myxosis of the Pharynx," by Dr. W. C. Glasgow, of St. Louis, Mo.; "The Easiest and most Practical Means of making Galvano-cauteries—especially to Turbinate Hypertrophies," by Dr. Arthur G. Hobbs, of Atlanta, Ga.; "The Use of Formate of Soda in Laryngeal Disease," by Dr. E. L. Shurly, of Detroit, Mich.; "The Utility of the Electro-cautery Snare," by Dr. H. W. Loeb, of St. Louis, Mo.; "Reflex Epilepsy from Intra-nasal Disease," by Dr. John O. Roe, of Rochester, N. Y.; "A Case of Angioma of the Nasal Septum," by Dr. Frederick C. Cobb, of Boston, Mass.; "A Case of Elongation of the Epiglottis reduced by Operative Measures," by Dr. Price Brown, of Toronto, Canada; "Some of the Throat Conditions Observed in Gouty Subjects," by Dr. S. Solis-Cohen, of Philadelphia, Pa.; "The Ultimate Prognosis in Neglected Adenoid Hypertrophy," by Dr. D. Bryson Delavan, of New York, N. Y.; "Report of a Case of Myxosarcoma of the Nasal Cavity," by Dr. C. W. Richardson, of Washington, D. C.; "Surgical Treatment of Empyema of the Maxillary Sinus," by Dr. Edward Obejero, Buenos Ayres, Argentine Republic; "Report on Cases of Tubercular Laryngitis treated in Colorado Springs," by Dr. S. E. Solly, of Colorado Springs, Col.; "Sarcoma of Naso-pharynx, with Report of Case," by Dr. James E. Logan, of Kansas City, Mo.; "Alumnol in Diseases of the Throat and Nose," by Dr. J. Mount Bleyer, of New York, N. Y.; "Some Forms of Nasal Reflexes, with Report of Cases," by Dr. S. K. Merrick, of Baltimore, Md.; "Hysterical Aphonia and Deafness," by Dr. E. Fletcher Ingals, of Chicago, Ill.; "Clinical Notes of Cases of Tubercular Ulceration of the Larynx treated by the Krauss Method at the Throat and Chest Clinic of the Emergency Hospital," by Dr. T. Morris Murray, of Washington, D. C.; "Indications and Opportunity for Opening the Mastoid Process," by Dr. Edward Obejero, of Buenos Ayres, Argentine Republic; "On the Treatment of Empyema, with due Regard to Normal Pulmonary Contractibility," by Dr. Dan Millikin, of Hamilton, O.

Papers by Dr. Robert Levy, of Denver, Col.; Dr. W. H. Daly, of Pittsburg, Pa.; Dr. A. C. Wolfe, of Columbus, O.; Dr. G. B. Lawrason, of New Orleans, La.; Dr. Jonathan Wright, of Brooklyn, N. Y.; Dr. John N. McKensie, of Baltimore, Md.; Dr. Charles H. Knight, of New York, N. Y.; Dr. Alexander MacCoy, of Philadelphia, Pa.; Dr. J. C. Mulhall, of St. Louis, Mo.; Dr. Edward O. Clyer, of Buenos Ayres, Argentine Republic; Dr. C. E. Bean, of St. Paul, Minn.; Dr. H. Holbrook Curtis, of New York, N. Y.

Pan-American Medical Congress.—*Hotel Rates and Capacities.*—Hotel Normandie: Two in a room, $4.00; one in a room, $5.00 per day, American plan; accommodation for 100. The Arlington: $4.00 and $5.00 per day; accommodation for 500. Cochran Hotel: $4.00 and $5.00 per day; accommodation for 50 to 75. Wormley's Hotel: $4.00 per day; accommodation for 100. Randall Hotel: $2.50 and $3.00 per day; accommodation for 75 to 100. Willard's and Riggs's: $3.50 to $4.00 per day; accommodation for 400 to 500. Arno: $1.50 to $2.50 for room, European; and $3.00 to $4.00 per day, American; accommodation for 200. Shoreham: $2.00 to $3.00 for room, European; $4.00 to $5.00 per day, American. National Hotel: $2.50 to $4.00 per day. St. James Hotel: $1.00 to $2.00 each; suites, with bath, $3.00 to $5.00 each; and $5.00 to $6.00 for two persons; accommodation for 300. Ebbitt House: $3.00, $3.50, and $4.00 per day; no extra charge for alcove parlors; accommodation for 350.

Dr. George W. Benton, died at his home in Baltimore, of Bright's disease. He was born in Princess Anne, Somerset County, Md., in 1831, and when twenty years of age took his medical degree at the University of Maryland. He was appointed Health Commissioner of Baltimore in 1872. He served two years, and ten years later was again appointed to the place.

The Progress of Medical Science.—In a recent address at the University of Glasgow, Professor McKendrick summed up the results of modern medical research, thus: 1, Thousands of lives saved annually by preventive medicine; 2, greater accuracy in diagnosis, and a sounder knowledge of the natural history of disease; 3, more rational treatment; 4, many diseases caused to pass through their stages more speedily, thus saving time; 5, better means of relieving pain and suffering; and 6, making disease, even when incurable, more tolerable, and at last smoothing the passage to the Elysian Fields.

The Contagiousness of Influenza.—The Government report of an investigation into the influenza epidemic of the past four years, in Great Britain, regards the proof of the contagiousness of the disease as overwhelming, and denies that it is transported through the atmosphere.

The Skull of Sophocles is said to have been found by an iquity hunters in Greece, and it is proposed to lend it to Virchow for examination.

A New Medical School.—The Trustees of Tuft's College, in Massachusetts, have decided to establish a medical school in Boston. The school will admit students of both sexes.

The Mortality of New York State.—According to the bulletin of the State Board of Health, there was an average daily mortality during July of 398, against 291 in June, which was the lowest rate for the year; in July, 1892, however, the average was 437. From zymotic diseases, with the exception of diarrhœa, there were fewer deaths in July than in June. The deaths from diarrhœal diseases increased from 478 in June to 3,200 in July, twenty six per cent. of the total mortality for the month. The latter figure, however, was less than for July last year, and less than the average, which is about twenty-eight per cent. The infant mortality is correspondingly

diminished, 50.5 per cent. of the deaths having occurred under the age of five years, the average for July being 51.5. In the cities of New York, Brooklyn, and Buffalo forty per cent. of the deaths were from diarrhœa; in the rural parts of the State only 7.3 per cent. of the deaths were from this cause. Scarlet fever and measles continue to decrease in all parts of the State. Diphtheria is slightly more prevalent than is usual for this season. There were sixteen deaths from small-pox. There was a large increase over June in deaths reported from diseases of the digestive and nervous systems. The following percentages represent an annual death-rate per 1,000 inhabitants in certain cities of the State for July: New York City, 29.87; Brooklyn, 29.57; Long Island City, 48; Yonkers, 30.35; Mount Vernon, 36.28; Albany, 21.55; Poughkeepsie, 23.78; Newburg, 29.89.

Dr. O. H. Bartine, of Princeton, died recently aged seventy-eight years. Dr. Bartine was born in Mercer County, N. J., and was at one time Mayor of Princeton. He had resided in Princeton for forty-six years.

Dr. N. A. Garrison, of Stony Point, Rockland County, N. Y., died suddenly of heart disease on August 26th. He was fifty-six years of age.

A Distinguished Americanist.—Dr. Daniel G. Brinton, the Philadelphia archæologist, is supposed to know more about Indian antiquities and languages than anybody else in America. He can converse with fluency in Choctaw, Muskogee, Natchez, Maya, Quiche, Arawack, and other soft-sounding Indian dialects; but is at the disadvantage of being rarely able to find a person accomplished enough to talk with him in those tongues. Dr. Brinton was the first to classify the tribes of American Indians by their languages, and he has read all that is discoverable of their literature.—*The Tribune.*

The Red Cross and the Projected Samaritan Union.—Dr. Joseph Kühn, of Vienna, in a recent pamphlet, controverts the arguments of Professor Billroth in favor of the proposed Samaritan Union. A few of Dr. Kühn's points are as follows: As the Red Cross Society, to which is intrusted the noblest tasks of humanity both in war and peace, is one of vital importance, it will be eminently proper to examine the proposed movement carefully, and ascertain if in reality its advantages would be as great as its projectors would have it believed. The Union proposes to take care of the physical well-being of the people, which, according to law, is the duty of the communities under the direction of the government, and for this work the Union desires a yearly appropriation from the state. Although this is a fair proposition, it is obviously the sounder principle to educate the communities in sanitary measures and help the poorer communities to build hospitals, etc., whenever and wherever necessary, directly from the treasury of the state rather than indirectly through an association. If the plans of the Samaritan Union were carried out, the communities would become more and more dependent on the Union, therefore would be crippled in their independent prophylactic measures, and in a formidable epidemic would be helpless. In the event of war the dependent communities would be left without resource, as it is expressly stipulated that then the entire *personnel* of the Union must be turned over to the Red Cross. This would paralyze the public sanitary service and expose state and community to great danger. Even though the Samaritan Union were actually to render valuable assistance in times of great calamity, it would still be contrary to sound business policy, for in a long time of peace the people would lose sight of the activities of the Red Cross, and the latter would thus be hampered in the collection of funds to carry out the provisions of its great work, viz., the care of the sick in war. As there is no better way of preparing the Red Cross for war than in the perfecting of its aid service in time of peace, and as the important provisions of the two services are the same, therefore, to be harmonious, they must be under one organization. The Samaritan Union, in urging the voluntary aid service, overlooks the important facts that the Red Cross has been authorized by law to provide such service, and that there are already many allied aid societies in existence. The centralization plan of the Samaritan Union was tried very thoroughly in Germany a few years ago by Dr. Fredrich von Esmarch, who established a union, erecting schools where first aid to the injured could be taught practically. Though the ideas there promulgated were excellent, the plan met with scant success; as the other great humane societies were already established, and received all who desired to join aid societies. In this movement Dr. von Esmarch did not in any way seek to destroy the activity of the Red Cross in time of peace, but, on the contrary, did everything in his power to encourage it, recognizing the vital necessity of all aid societies being under one management. If the Samaritan Union was established as proposed, supported and sustained by the state, Dr. Kühn thinks it would tend to disorganize and ruin the Red Cross Association.

The William F. Jenks Memorial Prize.—The third triennial prize, of five hundred dollars, under the deed of trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on "Infant Mortality during Labor, and its Prevention." The conditions annexed by the founder of this prize are, that the "prize or award must always be for some subject connected with obstetrics, or the diseases of women, or the diseases of children;" and that "the trustees, under this deed for the time being, can, in their discretion, publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may, in their judgment, be sufficient for that purpose, and the essay or paper be considered by them worthy of publication. If published, the distribution of said essay shall be entirely under the control of said trustees. In case they do not publish the said essay or paper, it shall be the property of the College of Physicians of Philadelphia." The prize is open for competition to the whole world, but the essay must be the production of a single person. The essay, which must be written in the English language, or if in a foreign language, accompanied by an English translation, should be sent to the College of Physicians of Philadelphia, Pa., U. S. A., before January 1, 1895, addressed to Horace Y. Evans, M.D., Chairman of the William F. Jenks Prize Committee. Each essay must be typewritten, distinguished by a motto and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

Society Reports.

BRITISH MEDICAL ASSOCIATION.

Sixty-first Annual Meeting, held at Newcastle-on-Tyne, August 1, 2, 3, 4, and 5, 1893.

(Continued from page 284.)

(Special Report to the MEDICAL RECORD.)

SECTION OF SURGERY.

FIRST DAY, WEDNESDAY, AUGUST 2D.

IT having been decided that in order to save time presidents of sections should not deliver addresses, Dr. Arnison merely prefaced the business of the Section with a few remarks. He much regretted that Dr. Halsted, of the Johns Hopkins University, in Baltimore, who was to have opened the discussion on the "Radical Cure of Hernia," was prevented by illness in his family from being present. Mr. Mitchell Banks, who was to have taken part in the discussion, was also prevented by illness from doing so.

A resolution of regret and sympathy was passed by the Section unanimously, and ordered to be forwarded to Dr. Halsted and Mr. Banks.

Radical Cure of Hernia.—MR. RUSHTON PARKER, of Liverpool, then opened the discussion. He had practised the operation during fourteen years on 251 cases, omitting 25 that died from strangulation. Of 61 strangulated 30 were inguinal, 21 femoral, and 10 umbilical and ventral. He included here no deaths, as they resulted from strangulation and not from the operation. In 190 unstrangulated cases 137 were inguinal in 107 persons, with 5 deaths, or 3.6 per cent.; 25 were femoral in 20 persons, with 1 death, or 4 per cent.; 28 were umbilical or ventral in 24 persons, with 2 deaths, or 7 per cent. Of the 137 inguinal cases 22 were infants and children under twelve years (one strangulated at the age of three weeks remaining up to now, after nine years, a radical cure); and 21 unstrangulated, with 1 death, or 4.7 per cent. He thought that all methods were liable to fail sometimes. He could not give a trustworthy estimate of the proportion of failures among his cases, but he thought that they were few. He had practised ligature of the sac in rather less than half the cases, and suture in rather more than half. He stripped the sac from the vessels and duct in order to ligature and suture, leaving the lower part of it *in situ*. Since he had become acquainted with Macewen's operation he had practised it exclusively. In femoral hernia he made no attempt to unite the edges of the ring.

Failures were owing sometimes to flabbiness of the patient's tissues, or too tight distention of the abdomen, or to recumbency after operation not being long enough enforced. This last cause was most common in hospital patients, who were not so easily controlled or so amenable to reason as private patients, among whom complete success was the rule. He had found that carbolized or chromicized catgut was too quickly absorbed in many cases, and he preferred the sulphurized gut or silk. He had had one fatality in a child in whom the whole of the small intestine was in the sac. He thought that this death would not have happened had he had his present experience at the time. The child was ten years of age, and treated as an out patient. Eight out of twelve cases were treated by ligature, with 1 death and only 2 recurrences.

Macewen's method was sometimes difficult of execution. He had used it in more than one hundred cases. Some cases after operation suppurated, but he thought that this was due to modifications introduced by himself which he had since abandoned. In a few cases in infants recurrence had followed. The younger the patient the better the result. In umbilical hernia he had satisfactory results from ligature of the peritoneal lining of the sac, but this sometimes failed. He had had better results after dealing with the sac by what he called the "double-breasted-coat method." This consisted in forming either two lateral or upper and lower flaps, and uniting the free edge, each one to the base of the other, by two rows of sutures, but he had had recurrences in some of the most severe cases where radical cure was most called for. Of 40 operations for umbilical and ventral herniæ 13 were on strangulated cases, with 3 deaths, and 27 on unstrangulated cases, with 2 deaths.

In conclusion he would say that a radical cure in young children or infants was almost certain of attainment, and in adults in a majority of cases. Umbilical hernia in adults was not so curable as femoral and inguinal hernia.

MR. WARD COUSINS, of Portsmouth, said that in his opinion the great question was, "What is the best operation?" All were more or less successful. The best were those of Mitchell Banks (who was a pioneer in this line), Macewen, and Halsted. Even in unsuccessful cases the patients were benefited, as they were enabled to wear trusses with safety and comfort. The same operation was not applicable to all cases. Each must be treated on its merits. It was useless to say that the sac should always be removed or the pillars always stitched. He had treated one hundred and twenty cases in children from seven years old to twelve months, and also many adults. In eighty per cent. a thorough cure had followed one operation, in three-tenths of the remainder he had repeated the operation. Parents were now very anxious to have the operation done, as hernia was a disqualification for the public services, and in the neighborhood of Portsmouth many children were intended for the army or navy.

The operation as he performed it was very simple. He did not open the sac when it was empty. After exposing the sac and stopping all bleeding he peeled the sac from its surroundings close up to the ring, and ligatured it as high as possible, placing a second ligature, less tightly drawn, half an inch lower down. He then tucked up the sac into the inguinal canal. He had had no deaths from the operation, but two from influenza. The management of the bandage after operation was most important. He entrusted his cases to skilled nurses, who were careful to support the part with the hand during washing or whenever the bandage was temporarily removed. He usually ordered a light truss after operation, as crying and straining were likely to cause protrusion. He believed that there was a great future before the operation, which was simple and safe in early life.

MR DAMER HARRISON said there were three principal ways of operating. 1. Simple ligature of the sac without suture of pillars of the ring. 2. Mitchell Banks's operation dealing with the pillars. 3. Macewen's. The first method was followed by no more recurrences than the others. He thought that the pillars might safely be left alone. He had had no recurrences since he had done Macewen's operation. It was a mistake to suppose that suppuration and the formation of scar tissue produced the best results. The contrary was the case. He used no drainage except in very large herniæ and had given up even the horse-hair drain during the first twenty-four hours. Cicatricial tissue was not useful as a protection. He had had trouble with Banks's operation from the stitches setting up inflammation and suppuration.

DR. CRAWFORD RENTON, of Glasgow, thought that early operation was best, as the tissues had not yet become thinned and altered, but in children many cases were cured by the use of proper trusses. He would operate on all irreducible hernia in adults, whether strangulated or not. He preferred Buchanan's operation in children and Macewen's and Banks's in adults. For old cases it was difficult to detach the sac, and it should be cut off.

MR. PYE SMITH said that inguinal hernia in infants had, like phimosis, a tendency to spontaneous cure when the gut was kept out of the sac. He quoted statistics to show that many cases must undergo natural cure early in

life. He had had one fatal case of operation for radical cure.

Mr. Stanmore Bishop said there were two important points for consideration. First, as to the advisability of operation; and second, as to the choice of operation. There was great difference of opinion on the first point. Enough attention was not paid to the causes of hernia. The causes of strangulated hernia were different from those of reducible hernia. The causes of the latter were preventible, and were difficulties of defecation—such as piles, worms, etc.—difficulty of urination, and also the occupation of the patient.

We ought to be able to combine in one operation the best points of all. He took a truss which consisted of a pad and a spring as typical of the result aimed at. What was the best pad? and what the best means of repairing the broken spring of the abdominal wall? Macewen was the first to propose the spring and pad. He had modified Macewen's method of forming the pad, and explained his modifications. He did not separate the sac beyond the ring, as its nutrition was otherwise apt to be interfered with.

Mr. R. C. Chicken offered a few "heretical opinions." He disagreed with much that Mr. Pye Smith had said. He had never had a failure in a child. He thought that the most favorable cases were those where no truss had ever been worn. Most herniæ, in his opinion, were really congenital in origin, the sac having been down since birth. The sac in these cases was composed of interlacing fibrous bands, and was strong and distinct, and often thick and quite different from the sac of a truly acquired hernia, which was thin and often imperceptible. In the latter the sac cannot be manipulated. As to suture of fascia, in this region the fasciæ were very movable on one another, and unless the aponeuroses were laid bare and sutured union would only be temporary. It was very difficult, and often impossible, to distinguish between the peritoneum and the transversalis fascia, and this Macewen acknowledged. A very light truss produced no absorption when union had been primary. He preferred cotton ligatures, soaked for twenty-four hours in pure carbolic acid and afterward boiled for one hour in a five per cent. solution, to all others. He had had no suppuration when using these; with various other ligatures he had had trouble.

Mr. Butlin though it was still doubtful which cases were the best for operation. All cases should be operated on until it was clearly shown which were the best. Each surgeon should do the operation with which he was most familiar. He thought removal of the sac was essential.

Mr. Jessop said that the question of strangulation had not been considered enough. Should we in all cases of strangulation not only relieve this condition, but also attempt radical cure? He thought we should.

Mr. Rickman Godlee said the simpler the operation the better. He sutured the pillars and had had very good results.

Mr. Rutherford Morrison spoke of Halsted's practice, which he had watched in Baltimore. He thought his operation the best. The presence of the spermatic cord was agreed to be the cause of recurrence, and Halsted's operation removed the cord from the inguinal canal and rendered its obliteration possible. Dr. Halsted had lately much simplified the procedure.

Mr. Ward Cousins thought that the large scar would be a drawback and prevent patients entering the public service.

Mr. Rushton Parker, in reply, said that it was not necessary to strip all the sac from the scrotum; it did no harm, but it must be stripped up in its upper part to allow of ligature. He had followed Professor Lister's method of dressing the wound, and now used cyanide gauze, etc. He did not use or approve of included wire sutures. The supposed advantage of the results of suppuration was "all moonshine." The quicker the union the better. As to the use of trusses, some patients did not mind them, but others strongly objected to them, and one elderly patient had said to him: "I don't mind dying, but I'll be d——d if I'll wear that infernal truss any longer." This remark expressed the feelings of many patients.

Mr. W. Mitchell Banks said that since he first commenced, about the year 1880, attempting the radical cure of hernia, he had only performed the operation 168 times, 117 times on non-strangulated and 51 times on strangulated herniæ. He had always publicly expressed a strong opinion that no operation (except for very special reasons) should be performed on an adult who can keep up his rupture securely and comfortably with a truss, for a light and well-fitting truss is hardly any inconvenience to a patient, and is very far from being the bugbear which the advocates of the indiscriminate use of the radical cure would make it out to be. As regards infants, he believed they may all be cured by well-fitting trusses. Of the 117 non-strangulated cases not one was operated upon who could wear a well fitting truss, except in special cases, such as where a man was going abroad to a place where no medical help was to be had, or where he had some extremely violent labor to perform which might break down any truss, or where it was necessary for a public appointment that he should be entirely free from rupture.

The operation was the same in all the cases. In femoral herniæ it consisted simply in dissecting out and removing the sac as high up as possible. In inguinal herniæ, in addition to this, the pillars of the external ring were pulled together by two or three silver wire sutures, which were left in position after their ends had been cut very short. He does not put these in with any object of securing a permanent closure of the external ring, but simply to make sure that the hernia shall not descend for a considerable period, so that the inguinal canal (if it be in fairly normal case) may have a chance of contracting. Unless some extensive "rawing" of the walls of the canal is done, he believed all stitching of it to be of just as much use in procuring permanent union as stitching the edges of a cleft palate would be without freely refreshing them. The speaker's reason for adhering to the operation which he had hitherto used was that it is the simplest of any that has yet been devised. Ruptured people are in every place and in every station of life, and the operation for their cure should be such that not merely experts or specialists could do it, but that any surgeon to a cottage hospital should be able to perform it.

Statistics of Mortality.—Among the 101 moderate-sized non-strangulated herniæ 2 deaths are recorded. One was distinctly due to the operation. It was a case where there was a "land slip" of the cæcum down into the scrotum, which is a very dangerous condition. The other was doubtful, as the wound was all but healed.

Of the 16 very large and enormous herniæ 4 cases proved fatal. Septicæmia killed 2 patients, and unsuspected abscess, bursting into the peritoneal cavity after the patient was walking about and deemed sound, proved fatal in another, while in the fourth the operation could not be completed.

Of the 26 cases of strangulated inguinal herniæ, 1, an old man, aged seventy-seven, died from septicæmia and bronchitis. Of the 24 cases of strangulated femoral herniæ 2 died; one never recovered from the collapsed state in which she arrived at the Infirmary, and the other was moribund when admitted. The mortality of the radical cure in moderate-sized herniæ was, therefore, two per cent., and of the strangulated herniæ six per cent.

Statistics of Permanence of Cure.—Of the whole 168 cases it has been possible to trace for very considerable periods 113. Of these, 79 remain quite sound, 19 are partial successes, and 15 are complete failures. The majority of the failures occurred either in very degraded people, who took no care of themselves, or in persons who had very severe work to perform and began it too soon.

Surgical Treatment of Ulcer of the Stomach.—Mr. Haslam then read a paper on some points in the surgical treatment of simple ulcer of the stomach.

Perforation of the coats of the viscus occurred in some cases, but the position of the ulcer much affected the gravity of the result. When on the posterior surface adhesions generally formed, and general peritonitis was by them prevented. When perforation happened, and adhesion with a neighboring hollow organ existed, a fistula would result.

He described a case in which perforation occurred and he had operated three hours after the onset of symptoms. Death occurred forty-five hours afterward. The patient had had no clear symptoms of ulcer before perforation. The symptoms of perforation were sudden vomiting (but this was not always present), pain almost invariably, sometimes increased by pressure and sometimes relieved by firm pressure. In operating the incision should be to the left of the middle line to avoid the falciform ligament. The part of the stomach first met with was the lower edge of the anterior surface. The ulcer would often be found to be apparently on the upper surface. The advisability of excising ulcers before perforation occurred was considered. He used Lembert's sutures, and thought that pelvic drainage was advisable, as it made easy the flushing of the peritoneum.

Aneurism of the Subclavian.—Mr. Coppinger, of Dublin, showed his case of aneurism of the second and third parts of the right subclavian artery cured by ligature of the innominate. The case has been described in the medical journals at the time of operation and since. The aneurism is now (seven months after operation) represented by a hard lump about the size of a large walnut. Mr. Coppinger said, that although no pulse could be felt at the right wrist, the arm and forearm were normal in temperature, color, and nutrition. Some members thought that a very faint pulsation was perceptible in the radial artery.

Second Day, Thursday, August 3d.

Surgical Treatment of Cerebral Tumors.—Mr. Victor Horsley opened the discussion on the surgical treatment of tumors of the brain. He would say there were three chief points to be considered. First, the treatment of the case previous to contemplated surgical interference; second, by the objects to which that interference should be directed, and lastly, the technique of the operation. He premised that a case of cerebral tumor meant one in which there were progressive localized symptoms. It was notorious that before the nature of the case was known the symptoms might be few and their localization undiscovered. He wished to elicit a distinct expression of opinion as to how long it was justifiable to continue medical treatment before resorting to surgery. At present cases were not submitted to the surgeon, as a rule, till they were beyond hope of cure by operation. He would venture to suggest that treatment by drugs should not be prolonged beyond six weeks. It was admitted that no kind of cerebral tumor was curable by drugs, except it were perhaps a gumma or a tuberculous nodule. In the latter case treatment by arsenic, cod-liver oil, etc., might be continued longer than that by iodide of potassium in a syphilitic case. Say for four months as against two. He protested against operation being used only as a last resort instead of as a primary method of treatment. He thought that the only possible way of curing a cerebral gumma was by removal. Optic neuritis was, of all the results of cerebral tumor, one of the most melancholy, and early operation alone was likely to check its progress. He projected micro-photographs of certain endo-cranial tumors on the screen by means of the lantern, and remarked on the tendency of some to degenerate. He was convinced that the pericranium had no osteogenetic power, and that therefore it was of no importance whether it were separated from the bone or not. As to reimplantation of the bone removed in operating, he preferred the American plan of implantation of the whole piece, or pieces, to that originally used by Macewen, of dividing it into small fragments.

Mr. Horsley described a case of Jacksonian epilepsy, and extensive and progressive motor palsy. A tumor of the motor area was diagnosed, and on operating he found it to be about two by two and one-half inches. It shelled easily out, leaving a corresponding cavity. The patient recovered from the operation; but five hours afterward chloroform vomiting set in and patient died. Necropsy proved that hemorrhage into the cavity had occurred, and the thin wall of brain matter dividing it from the lateral ventricle had yielded and the blood had filled the ventricle and passed on to the fourth ventricle. He would now in a similar case tampon the cavity. Opening the lateral ventricle was, of course, not in itself fatal.

Shock was a common cause of death in cerebral operations, but it might be largely diminished by dividing the operation into two stages—first, trephining and opening the dura mater; and removing the tumor at a second operation a few days later. Treatment by drugs alone was dangerous, and of little use. Surgical interference held out the only hope of cure in most cases of intracranial tumor. Mr. Horsley demonstrated his electric saw, which he preferred to the trephine, the pressure of which on the skull was sometimes dangerous.

Mr. Macewen referred to two cases of cerebellar tumor under his care (one of which was cured), of absolute palsy of the lower extremities and extensive loss of power in the upper limbs, and incontinence of urine. In another case the palsy was little improved, but severe and constant headache, which had been the most distressing symptom, was quite cured. This result alone was worth operating for. He had several times operated in two stages, not to prevent shock but to avoid subdural bleeding, adhesion occurring, and thus removing the risk of blood being extravasated and travelling, as it might do, down to the base of the brain. He was glad to hear what Mr. Horsley had said about the absence of osteogenetic power in the pericranium. He would himself extend this statement to all periosteum. After trephining in children he would reimplant the bone *en masse*, but in adults there was a risk of partial necrosis. He therefore preferred to divide the bone, but not into such small fragments as he did formerly. In some instances he had removed a rectangular piece of bone, cutting along three sides with the chisel and dividing the base by a row of drill-holes. He thought that the high-speed saw and the circular saw were not safe except in very experienced hands. The vibration made delicate application difficult, and a vessel might be wounded inside the skull before the bone was removed, and fatal bleeding follow. He agreed with Mr. Horsley that cases as a rule were kept too long under observation before operation was decided on.

Mr. Damer Harrison said he was there to ask questions, and seek information. He had only operated on one case of tumor, which died, he believed, because operation was too long delayed. Hemorrhage was often difficult to treat.

Mr. Rushton Parker approved of the position taken by Mr. Horsley. He narrated a case of his own which was related at the 1889 meeting. Here the dura mater was adherent and umbilicated. The patient was doing well when Mr. Parker, twenty-four hours after operation, inserted a drain, with the result that sinuses formed, and the operation had to be repeated to remove them. After much trouble the man recovered. He deprecated such meddling.

Dr. Lanz, of Berne, said that Rocher had several times established permanent drainage of the lateral ventricle as a palliative measure, by means of a trocar and cannula and glass-tube, with good effect.

Dr. Nicholson mentioned a case on which he had operated. There was bulging of one parietal bone. On opening the skull the bleeding was so alarming that, fearing immediate death, he applied pressure and closed the wound. The man died six months after, with a sarcomatous mass as big as a hat outside the skull.

Dr. Cathcart thought that the classification of tu-

mors was too rigid, and that there was no hard-and-fast line between sarcomata and fibromata.

Dr. Newman, of Glasgow, said that sarcomata were sometimes encapsuled at first, and growth was very slow until the capsule was divided or gave way.

Mr. Victor Horsley, in reply, said that he had suggested six weeks as a limit to the medical treatment of tumors in those supposed to be malignant only. He did not attach much importance to subdural bleeding, as the brain expanded and the vascular pressure improved after opening, and the subdural space was obliterated. There was no such space in life normally. The vessels of the meninges were important, and should be ligatured all round the site of incision before it was made. In cases of bleeding under the dura mater he would enlarge the opening fearlessly, and find and tie the vessel or vessels. He had not tamponed wounds hitherto, because he held that immediate union was to be hoped for. He would reserve tampons for cases where a large cavity was left in the corona radiata, using successive strips of gauze. He would undertake it with hesitation. No one should operate who was not familiar with the appearance of normal living brain, and this familiarity was only obtainable by experiments on living animals. He doubted the correctness of Macewen's views as to the osteogenetic power of the periosteum, except in the flat skull-bones. He thought that the nutrition of the fragments of bone reimplanted was damaged by the force used to cut them up, and for that reason would continue to use the bone *en masse*.

Splints for Fractures of the Lower Extremity.—Mr. W. Arbuthnot Lane read a paper on the fallacy of the vertical foot piece. He said that he would attempt to prove that the practice of putting up fractures of the lower extremity in splints, with foot pieces so placed in a vertical transverse plane that the inner margin of the foot was vertical, was fallacious and unscientific. The normal position of rest of the foot in the supine position was one of eversion about forty-five degrees. This was due to the fact that the centre of gravity of the limit lay outside a line from the acetabulum to the heel. He described various experiments on the dead body, showing the effect of the usual foot-piece in preventing union in intracapsular fractures of the neck of the femur, and in producing mal-union in other parts of the limb. That results were not worse was due to the foot slipping away from the splint, and to the use of splints without foot pieces. The more careful the surgeon, the worse the result with the vertical foot-piece.

Mr. Damer Harrisson agreed with Mr. Lane. In Liverpool, owing to the late Mr. Thomas's influence, the foot-piece was not so much used as elsewhere. The great discomfort felt by persons kept on their backs with a splint might be due to the inversion caused by the foot-piece.

Mr. Pye Smith agreed. He thought that the good results of treatment with Hodgen's splint were due to its having no foot piece.

The President thought that results hitherto had not been so bad. He was ready to take a hint, however, from Mr. Lane's paper.

Dr. Peters, of Toronto, said he would like to know how Mr. Lane put up his fractures. Experiments on the dead body were not altogether trustworthy. The conditions were not the same as in life. Some splints having vertical foot-pieces supported the leg and thigh, and so prevented rotation inward of the lower fragment. In Canada the Scotch sheet was much used. Certainly some deformity often resulted, but eversion of the foot, and not inversion, was the rule.

Dr Newman, of Glasgow, said that treatment of fractured femur was a complicated question. He advocated simple weight extension, especially in fractures about the middle. Frequent inspection of the site of fracture was then easy.

Mr. Lane, in reply, complained that our surgery did not rest enough on principle. We were too much inclined to follow individuals like disciples. He could not agree with the President. He thought the results of our treatment of fractures miserable. The particular splint employed was not important so long as true principles were followed.

Angular Gouge for Operations on the Skull.—Mr. Lane then read a paper on "The Applicability of the Parting Tool or Angular Gouge to the Surgery of the Skull." He had for many years discarded the use of the trephine, as he considered it a clumsy and unsuitable instrument. Instead of it he had used gouges, and preferably those ground on their concavity, and with them he found that he could remove large pieces of bone with comparative rapidity. It occurred to him that an instrument with its sharp free margin presenting the form of two sides of an equilateral triangle, similar to what is used in carpentry, and is called a parting tool, if ground on its inner surface, would remove bone much more rapidly than the concave gouge.

He had had made instruments of suitable temper, and found that the results obtained more than came up to his expectations, since he was able to remove areas of bone of any form without injury to the dura mater and with great rapidity. He found it convenient to use two different gouges so ground that one was more suited to the thicker dense skull of the adult, and the other to the less resistant skull of the child. At first sight one would imagine that there would be some risk in injuring the dura mater with the sharp angle of the instrument, but with the most ordinary care there does not appear to be any risk of doing so. Certainly, he believed, that there was infinitely less risk to the dura mater in using the angular gouge than the trephine, and the mechanical advantages of the former over the latter only required a trial to demonstrate them.

Mr. Damer Harrisson preferred the chisel to the trephine, especially when there were symptoms of brain pressure. The operation was more rapidly done, but the concussion of the blows of the mallet was a drawback. He thought Horsley's electric linear cutting saw best. Several other speakers followed to the same effect.

Mr. Lane, replying, said that the mechanics of the gouge bevelled on the inner concave surface were very different to those of the carpenter's gouge. The parting tool need not be held in a position near the vertical, and almost all the force of the blows was spent on driving it in a plane nearly parallel to the surface.

Hydrocephalus.—Dr. J. Hern read a paper on the effect of repeated tappings on hydrocephalus. He showed a boy, aged six years, whom he had first tapped at the age of two. There was then extreme strabismus, and no perception of light in the left eye. Tapping was repeated at intervals of three or four months, two or three ounces being removed with the aspirator. The head ceased to enlarge, the crying ceased, and the child began to take interest in things. The vision of the left eye was now about one-fourth of normal, and the squint had diminished. The boy was now bright and intelligent. Symptoms began in this case, after convulsions, at ten weeks. He had treated six cases in this way, with one death. The fatal case was tapped eighteen times. The necropsy showed a large cerebellar tumor pressing on the pons.

He preferred to aspirate through the anterior fontanelle, making the skin puncture a little to one side of the opening, and passing the needle obliquely under the skin into the fontanelle. The head should be kept low during the operation, and the fluid be drawn off slowly. The other four cases had not long been under treatment, but he was hopeful as to the results.

Mr. W. A. Lane could only congratulate Dr. Hern on the case shown. He had tried tapping, but the results had been miserably unsatisfactory. He had aspirated and also left a minute cannula in the skull to allow of permanent drainage. Improvement had only been temporary.

Mr. Rickman Goodlee had had similar experience. Some cases improved without treatment, and he thought

that the one before them must be of that nature. A great many surgeons had told him that they had tried tapping but had given up the practice.

Dr. Newman said that the skull in hydrocephalus was more resonant on percussion than when normal. In this case he found the resonance was normal. Was this so at first? The pathology of the disease led one to expect little permanent benefit from tapping. As long as there was a physical obstruction to venous return from the choroid plexus tapping could only be palliative, and if too much fluid were withdrawn at a time the engorgement of the plexus would be increased. In ascites from cirrhosis of the liver, tapping was similarly only a palliative.

Dr. Hern said, in reply, that he had not been able to make sure that the percussion note permanently improved. Improvement occurred immediately after operation. He had known cases of cirrhosis of the liver get well after tapping, and he did not see why hydrocephalus might not. At any rate, for the sake of the mother, the attempt was worth making.

Pylorectomy.—Mr. Rutherford Morison showed specimens from cases of pylorectomy, etc. One was from an old man who died suddenly five days after operation. Another, from a case of cancer in which gastroenterostomy was done, showed a silk suture still attached four months afterward when death occurred. The third case showed the importance of making a very large communication between the parts at the time of operation. In the fourth case the stomach was much dilated, and there was extensive ulceration about the pylorus. The patient regurgitated pancreatic and gastric fluid and died. Mr. Morison also showed a new apparatus that he had devised for treating cases of gangrenous bowel or artificial anus. It consisted of a combination of Dupuytren's spur-divider and Paul's tube, made in metal instead of glass. He had only used it in experiments on the dead subject. He illustrated his paper by diagrams.

Third Day, Friday, August 4th.

Treatment of Intestinal Obstruction.—Dr. Frederick Page read a paper on this subject. Many conditions caused the symptoms of acute obstruction, and all were dangerous. Our treatment should depend on the cause.

In hernia he advocated operation as early as possible, and the same treatment was advisable when the strangulation was internal; but in that case it was often difficult to tell whether there was strangulation or not. In a great majority of cases there was mechanical obstruction or perforation. A small proportion would recover without operation. The mortality after abdominal section was high, and so it used to be in hernia, because the operation was too long delayed. The risk of opening the belly was small. He did not propose in this paper to deal with the various conditions and kinds of operation advisable. He would urge the importance of not waiting. Other means could very seldom be of use, and when unsuccessful they were harmful. Chronic obstruction was generally due to affection of the large intestine, and early operation was less imperative, but even here the anterior incision was best. In subacute cases the best criterion was the effect the disease was producing on the patient.

Taxis in Hernia.—Mr. Jonathan Hutchinson agreed with Dr. Page's concluding remarks, but dissented from much that he had said. He stood there as an apologist for careful and patient taxis. He regretted that Dr. Page had given no statistics. He assumed too much that the success of hernia operations had increased, and that from not using taxis. Mr. Hutchinson said that he found that modern surgeons taught students that the taxis was not to be tried in strangulated hernia. The rule was to operate without trying taxis. He emphatically denied that the modern practice had improved the statistics. At the London Hospital, which was the hospital with the largest hernia practice in London, or perhaps anywhere, in 1861, thirty-three per cent. of operations on strangulated hernia were fatal. At St. George's Hospital, at the same time, thirty per cent. were fatal. At the London Hospital now fifty per cent. of these operations were fatal! Although statistics were proverbially misleading, he could find no fallacy here. He would not say that this increase of fatality was general, but he knew of no hospital where the fatality was much diminished, and certainly modern operative treatment could not anywhere show so low a fatality-rate as thirty per cent. In his opinion it was wrong to suppose that operation itself entailed no extra risk. It added considerably to the risk. He spoke from an experience of twenty-six years at the London Hospital. In all cases of strangulated hernia that came under his care he tried taxis. In one year he operated on two cases at the hospital, in another only on one, and in another year on none. He could not, moreover, remember a single death after successful taxis in his own practice, while the fatality of operated cases was thirty per cent.; and this was due to no want of skill in his colleagues, one of whom at least was as skilled in abdominal surgery as anyone living. Opening the sac of a hernia did entail some risk. It was not right to compare operations on healthy peritoneum with those on a strangulated sac. Comparison of operations which differed in kind and conditions was fallacious. The mortality from cutting operations on strangulated hernia was still high, and had not been diminished by modern surgery. Cases which were operated on without opening the sac were much more favorable, this operation being a kind of partial taxis. Let him not be understood to plead for delay of treatment. Treatment should be actively undertaken as soon as possible. The position of the patient was important. Ice was of great value. Manual dexterity, however, was the chief requisite. This dexterity was in danger of being lost by the rising generation of practitioners, for the modern school forbade forcible taxis and frightened students so that they dare not try it. Taxis, to be of use, must be forcible, but the force must be rightly applied. He had often used taxis till his hands were tired and he had to give place to an assistant. He gave details of a case where perfunctory taxis was tried in vain, and operation showed that forcible and well-directed pressure would have cured the patient. The surgeon who operates cannot avoid the risk due to opening the sac.

Non-Operative Treatment of Intestinal Obstruction.—As regards internal intestinal obstruction, he objected to too much generalization. We must classify. He was a most diligent student of the periodicals and the literature of the subject generally, and he took every opportunity of inquiring of other surgeons. The conclusion he had come to was that abdominal taxis was far more successful in the long run than laparotomy. Judicious taxis did no harm whatever, and would cure a large proportion of cases. It was not possible to define acute obstruction, and he objected to the use of the phrase. In many acute cases there was nothing that operation would cure. There were a few cases that could only be cured by laparotomy, but there were at present no means of distinguishing these. He could mention at least a dozen cases presenting the symptoms of so called "acute intestinal obstruction" which had been cured by taxis. The taxis he employed consisted in inversion of the patient, forcible shaking, and pushing of the intestines from side to side, and the administration of large enemata while the patient was inverted. Chloroform must, of course, be given first. Sometimes the immediate result would be nil, but an hour or so afterward a motion would be passed and all go on well. He gave details of several cases illustrating this. We must not assume that in all cases the gut was tightly held by a band and strangulated. In many cases operation showed that a very slight force would free the intestine, and taxis would probably have succeeded at the London Hospital. He knew of no case of laparotomy from acute obstruction, while he was surgeon, that had recovered, excepting cases of intussusception, which were a class apart. He knew of only one successful case there since he became consulting surgeon. As in hernia, he believed that the operation increased the risk

to the patient. It was, for instance, absolutely impossible to diagnose gall-stones as a cause of obstruction. The history of such cases was most delusive. He knew of four cases of gall-stones that had been diagnosed by the best surgeons as due to band, and operated on. Only one case was cured. The results he had obtained in such cases, the nature of which had been afterward proved by the passage of stones, were uniformly good.

He had never seen a necropsy that made him regret that the belly had not been opened, and yet he examined every case that he could after death. He most strongly urged that abdominal taxis under an anæsthetic ought to be the first resort. It should be done early and faithfully, and if it failed it did no damage to the prospects of an operation. When there was peritonitis from the beginning he would not use taxis. What was to be done when the taxis failed? Each case must be discussed on its merit. No general rule could be laid down. He thought that laparotomy theoretically was good surgery, but he feared that it was bad practice.

Dr. Halliburton Hume said that all surgeons must agree with Mr. Hutchinson as to the unsatisfactory results of operations at present. He thought, however, that the use of unsuccessful taxis much damaged the prospects of operation. He held that the special state of the peritoneum in strangulated hernia, asserted by Mr. Hutchinson, was much aggravated by taxis. He had the same objection to abdominal taxis. Improvement must be sought by attempting the differential diagnosis between inflammatory conditions and mechanical causes. The previous history of the case was most important.

Mr. Ward Cousins believed that abdominal taxis was the very best treatment to adopt, as a rule. He had saved three cases by it. The symptoms of the different conditions which caused obstruction ran so much into each other that exact diagnosis was impossible.

Mr. Walter Rivington said that Mr. Hutchinson has not stated the real reason of failure of laparotomy. This was the delay that occurred before the surgeon was called in. His experience at the London Hospital was that physicians kept acute cases, as a rule, at least three or four days, and he had known three weeks to elapse before the surgeon was called in. A fair comparison would be between cases of twenty-four hours' duration only. Abdominal taxis and laparotomy were not opposed to one another. They should be both used if necessary.

Dr. Newman was glad to say that all cases of acute intestinal obstruction were now admitted at once into the surgical wards at the Glasgow Royal Infirmary. During ten years as pathologist he had seen many cases that might have been saved by operation, and never one in which death was directly due to operation. In hospital cases often no history was obtainable, and when obtainable it was not trustworthy.

Dr. Tyson, Mr. Rutherford Morison, Mr. Haslam, and Dr. Wilkinson also spoke, after which Dr. Page briefly replied. The Section then adjourned.

OBSTETRIC SECTION.

Second Day, Thursday, August 3, 1893.

Puerperal Septicæmia.—Dr. Robert Barnes, of London, in opening a discussion on this subject, said that the questions that presented themselves were, "What is puerperal fever?" and "Is there a true endogenetic septicæmia?" He doubted the latter. There was still a serious mortality from puerperal septicæmia, but wherever medical authority and skill had been brought to bear there had been great diminution. Dr. Boxall had shown that puerperal fever had not diminished in England and Wales, though in lying-in hospitals it had almost disappeared. He divided the causes into, 1st, those which were essentially the product of the puerperal process; 2d, those which originated outside the body, as endo- and exo-genetic.

The endogenetic causes were, 1st, the serous effusion which occurred in the uterus and other pelvic organs during labor; 2d, the excess of lactic acid and other of the waste products of muscle action; 3d, the lochial discharge.

The products of change were eliminated from the blood, and when excretion stopped fever was generated; the lochial discharge when retained might putrefy out; as this depended probably on the admission of germs, it was closely allied to the exogenetic causes.

The question arose of how to obviate the endogenetic form. This must be aimed at by the proper conduct of labor. He thought that women of the better class were more liable to endogenetic forms than the poor; the latter being more susceptible to the exogenetic varieties. He absolutely condemned having lying-in wards in general hospitals. In the conduct of labor he advised the avoidance of unnecessary manipulation and the use of the tampon. He considered the careful use of the binder an important means of prevention, as not only did it tend to prevent hemorrhage, but it also prevented the suction of air into the vagina or uterus. He urged the preservation of the dorsal decubitus after labor for the same reason, and thought that injection and irrigation, as a general rule, were better avoided. Curetting, if done at all, should be practised with the utmost care, and he advocated giving regular doses of ergot, quinine, and other oxytoxics after labor, and the frequent cleansing of the external parts. Elimination must keep pace with absorption, otherwise one would get an endogenetic toxæmia.

As regards exogenetic causes, he drew attention to the fact that the curves of mortality of puerperal fever ran side by side with zymotic curves. All knew the danger of cadaveric poison, to which attention was first drawn by Semelweiss.

As regarded antiseptics, in the British lying-in hospitals they attached considerable importance to the frequent use of carbolic spray in the wards. He thought that one good effect of its use was that some of it was absorbed by the lungs, and so did good. Perchloride of mercury he used with caution, and considered iodine water the best thing as an intra-uterine injection.

In conclusion he observed that he had endeavored to raise a point which might be discussed profitably, and that the fact that a large number of women still died from puerperal septicæmia justified the choice of that subject.

Professor A. R. Simpson, of Edinburgh University, thought it better not to divide the causes into endo- and exo-genetic, but to look for a poison which had been introduced in every case. He thought that a division into different forms of the disease might be made, and that before calling a case puerperal septicæmia it was necessary to eliminate other diseases, as typhoid fever, which might coexist with the puerperium. He urged the importance of seeing that all who came in contact with puerperal women should be free from germs. He would put women in the best possible hygienic condition before labor. He would particularly avoid frequent vaginal examination, and thought that much of it might be dispensed with if abdominal palpation were more often carried out.

Dr. Cullingworth, of London, said that it had not been decided whether it was possible for the non-pathogenic organisms which were always present in the vagina to become pathogenic. It was a wholesome rule to act as though all puerperal fever were the result of infection from without, as this was the rule in nine hundred and ninety-nine out of one thousand cases.

As regarded antiseptic methods, he considered that douching was a very doubtful blessing, and it was much more important to be careful about asepsis of fingers; in douching, there was always a risk of carrying septic matter from the lower part of the canal to the upper. He rigidly discountenanced douching by any but a thoroughly skilled hand. All cases in which poisoning from absorption of perchloride of mercury had occurred were those in which it had been used for douching.

Dr. Jardine, of Glasgow, urged the importance of

allowing patients to sit up after the second day, at intervals, so as to afford a drain for the discharges.

Dr. Boxall, of London, drew attention to the fact that the mortality from puerperal septicæmia had not diminished as much as was usually thought. Such deaths can in the majority of cases be prevented. He drew attention to the large number of women who, though not actually killed, were permanently rendered invalids by puerperal septicæmia; sixty per cent. of the women of these islands were not attended by medical men at all, but by midwives. He urged importance of sufficient practical training for students, and would not discourage lying-in wards in general hospitals, as it was so much easier to teach practical details at the bedside. He would render aseptic the field of operation by a douche of 1 in 2,000 perchloride solution before the rupture of the membranes, made a point of using a douche given in this way at the beginning of labor, and one given by himself at the end.

Mr. Garrett Anderson, of London, thought we ought to aim at the extinction of puerperal fever, as it was always somebody's fault.

Dr. Sloan, of Glasgow, urged the importance of attending to the health of the patient during gestation, and the special importance of hand cleaning on most thorough principles; asked question as to when it was advisable to recommence attending midwifery after attending on a puerperal case, and gave an instance in which he attended a case half an hour after examining vaginally a woman suffering from puerperal septicæmia. He thoroughly disinfected hands and no harm resulted. He trusted to boiling to render aseptic instruments and other things which came into contact with patient.

Dr. Byers, of Belfast, said that in most lying-in hospitals the mortality from puerperal fever had been almost abolished, though all the measures taken aimed at the prevention of external contagion. He believed perchloride to be the best disinfectant for hands and instruments. He thought Dr. Cullingworth had gone too far in giving up the douche. He himself always used one if there had been a purulent discharge, or if the patient had run any risk of infection before coming into his hands. He did not believe that the disease could be carried by the atmosphere; he did not think time was an element in effecting purification after examining a case, but placed more faith in antiseptics.

Professor Oliver said that some of the causes of the disease were quite unavoidable, as, for instance, hemorrhage before labor. He thought that phlegmasia dolens was always septic. Among the unavoidable causes he mentioned cases of septicæmia which arose from salpingitis, the tube rupturing during labor, and he considered that this form should be treated by abdominal section.

Dr. Smyly, of Dublin, thought that one might neglect endogenetic causes, and drew attention to the fact that cases which were delivered in the street always did well. He did not believe in prophylactic douching; antiseptics were for the attendant, and not for the patient.

Dr. Aust. Lawrence would give a prophylactic douche, but would not use douching afterward; did not allow women to linger in labor; in the treatment of the disease used iodoform pessaries, twenty grains twice daily. When fever was present he would thoroughly wash out uterus.

Dr. Murdoch Cameron, of Glasgow, thought the worst cases were those in which there was no peritonitis, but high temperature, vomiting, diarrhœa, and quivering voice; to this last symptom he attached special importance. The only satisfactory treatment in his hands had been an intra-uterine douche of 1 in 2,000, with quinine and sodii salicylic. internally.

Dr. Pozzi, of Paris, thought the use of the finger for curetting, as advocated by one speaker, was most dangerous, especially to the operator. The use of the curette he considered valuable. If the uterus was large and there was fever, he always supposed that something had remained behind. He then, having previously ascertained the length and direction of the uterine cavity, used a blunt curette, holding the cervix with forceps. The curetting he performed with the greatest gentleness, especially attending to the mucous membrane near the cornu and washing the curette in carbolic after each stroke. He washed out the uterus immediately after curetting, with hot water containing two per cent. of carbolic, or perchloride 1 in 2,000, always after using the sublimate again washing out with plain hot water, and finally plugging uterus with iodoform gauze. It was remarkable how quickly the uterus began to diminish in size after this treatment.

Dr. Barnes in reply thanked the members for the interest they had shown in the discussion, and he was accorded a hearty vote of thanks for the part he had taken in bringing the matter forward.

Post-partum Ovariotomy.—Dr. Aust. Lawrence then read a paper with this title. He narrated ten cases on which he had operated: in all peritonitis had followed the labor, and the patients were supposed to have puerperal fever, the presence of the cyst not having been suspected during pregnancy. He drew the conclusion that when an ovarian cyst was discovered in the abdomen of a pregnant woman it should be removed as soon as possible, there being many dangers if it were let alone, whereas, on the other hand, pregnant women bore abdominal section well. Supposing the cyst were first discovered when the patient actually was in labor, he laid it down that one should endeavor to get the labor over with as little straining as possible, using forceps if admissible, and if symptoms of peritonitis appeared an operation might be performed; otherwise it would be better to wait till the puerperium was passed.

Dr. Pozzi agreed that it was a dangerous thing to have an ovarian cyst in the abdomen of a pregnant woman, the principal accident to which she was liable being the twisting of the pedicle. Sometimes, when the torsion was incomplete there was pain but no rise of temperature. He pointed out that sometimes the swelling in the abdomen was on the opposite side to that on which the cyst grew, and sometimes he had found similar symptoms caused by elongation of the pedicle, the cyst having been lifted up by the pregnant uterus, and formed adhesions high up in the abdomen upon which there was tension after the uterus emptied. The symptoms in these cases were chronic, and differed from the usually acute symptoms of torsion.

Dr. Byers thought that if a cyst were discovered near the end of term it would be better to wait until after labor before interfering.

Dr. Murphy, the President, had found pregnant women bear all operations well, and thought that in every case of pregnancy it was desirable to operate when a tumor was discovered.

Venter Fixation of the Uterus.—Drs. Leith Napier and F. T. Schacht gave particulars of twenty cases in which this operation had been performed by themselves and other operators; they advocated the employment of buried silkworm or catgut sutures.

Third Day, Friday, August 4th.

Extra-uterine Pregnancy.—Dr. Berry Hart, of Edinburgh, read a paper on "Ectopic Gestation." He said the most important point to determine was whether a pregnancy was intra- or extra-peritoneal. For some time it was believed that the former was usually the case, but of this there was no proof. It was thought, however, that an epithelial surface was necessary for the engrafting of the placenta, and that it fixed itself to the epithelial surface of the peritoneum. The guide to the nature of the gestation is position of the placenta and not of the fœtus. The results of the observations of many recent workers showed that advanced extra-uterine gestation was often extra-peritoneal, and that it began in the Fallopian tube, and developed in the broad ligament by enlargement of the tube and separation of the layers of the liga-

ment, and even up to full time it may remain extra-peritoneal. He drew attention to some observations he had made on the relative position of the fœtus and the placenta. He had found that the latter was most often in front or behind, and is not then displaced by the growth of the fœtus. The next most frequent place was for the placenta to be below the fœtus, and it was not then displaced by growth of latter, even after the fœtus had escaped into the abdomen. The most serious position of the placenta was for it to be above the fœtus. It was then pushed up by the growth of the fœtus even as high as the navel. The displacement of the placenta caused death of the fœtus and effusion of blood, and occasionally suppuration followed, and this explained the cases which ended in pelvic abscess. According to some, the placenta could not develop on connective tissue, but in his opinion this was an error. The placenta was made up on the one hand of villi, and on the other of connective tissue; he believed that there was no maternal epithelium covering the villi, and that an epithelial surface was not necessary for the attachment of the placenta. He had proved that the placenta in these cases was made up of villi on one side and connective tissue on the other. The treatment proper to one and all cases was abdominal section, and he thought that the older methods of treatment which aimed at causing the death of the fœtus had been quite given up.

As to the treatment of broad ligament pregnancy, he thought that we must lay aside the idea that the sac could be in all cases enucleated. If you removed the placenta there was risk of bleeding; if it was left, risk of putrefaction. It was better to remove the placenta and plug the sac, or if that was impossible, to remove the placenta, piecemeal, at intervals of a few days.

The Etiology of Ectopic Gestation.—Dr. J. C. Webster, of Edinburgh, read a paper on this subject. He said that of late the great importance of inflammation of the mucosa of the tube had been insisted on as a factor in the causation of the condition. Tait said, ovum never fertilized in the tube under normal conditions. The question remained as to where does spermatozoa meet ovum; it was generally held that the meeting took place in the tube, and in proof of this he instanced the fact that in some cases early pregnancy had been found in the outer end of the tube, the inner end remaining normal as regarded its mucous membrane. Another proof that ovum became impregnated in the tube was drawn from observations in comparative anatomy; in some animals the tube and the uterus form one cavity, the latter being bifid as we ascend the scale. The lower part of the double canal fuses until in man we have a single uterus with a tube given off from each corner. He did not think that denudation of the uterine mucosa by menstruation was necessary to insure a subsequent pregnancy and gave reasons in support of this view. He had found, on making a post-mortem of a case of tubal gestation, marked decidual formation in the non-pregnant tube, and thought that in some women there may be a decidual formation of the tube in parts, and that this may lead to the implantation of the ovum there.

Dr. Braithwaite, of Leeds, drew attention to the fact that the placenta in these cases sometimes completely absorbed.

Dr. Berry Hart gave a lime-light demonstration of photographs of frozen sections and of microscopical sections to illustrate the points of his paper, especially the fact that only one layer of epithelium lined the placental villus, and that, in his opinion, was fœtal in origin.

Dr. Boisleux, of Paris, read a paper on "The Drainage of the Pouch of Douglas," and showed a special tube he had devised for the purpose.

A Seasonable Epitaph.—The following epitaph was recently engraved upon a tombstone in Lincolnshire:

Here lies the body of Johnny dear,
Snatched away by the diarrhœa.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

BRITISH MEDICAL ASSOCIATION — USE OF THE ANNUAL GATHERING — NEWCASTLE INCIDENTS — EXPELLING A MEMBER—HYPNOTISM—SECTIONAL ADDRESSES—A CONVERSAZIONE PLUNGED IN DARKNESS—WATER SUPPLY—THE TEMPERANCE MOVEMENT AT NEWCASTLE—SERMON FOR MEDICAL BENEVOLENT COLLEGE — MEDICAL MISSIONS—ANNUAL MUSEUM—THE LONG VACATION—POSTPONEMENT OF THE INTERNATIONAL CONGRESS—CHOLERA APPROACHING—CASES IN SHIPPING—COST OF VIGILANCE—DANGER OF CASES BEING LANDED—AMERICA INSTEAD OF ROME—SMALL-POX—THE VACCINATION COMMISSION—OPHTHALMIA IN SCHOOLS—IRISH AND SCOTCH QUALIFICATIONS — EXAMINERSHIPS FOR THE ARMY—SHARES IN COMPANIES AS ALLEGED BRIBES—DEATH OF MR. A. E. DURHAM, JR.

London, August 8, 1893.

Now the hurly-burly of the Newcastle meeting is over one has time to glance at some of the smaller incidents and ask what is the position of this annual gathering as compared with others, or, if so inclined, what is the good of any of them? Well, this meeting will certainly rank among the more successful ones, and the officials and people of Newcastle deserve the hearty thanks expressed on all hands for their courtesy, hospitality, and determination to afford gratification to their guests.

As to the use of these meetings they must be regarded chiefly as opportunities for a brief holiday, and for meeting friends and acquaintances who are widely scattered. This is a sufficient excuse for the preponderance of amusements which invariably put the scientific programme in the shade. Doctors have, as a rule, less recreation than any other profession, and as they prescribe it for their patients may well show their faith in their treatment. Whether it is wise to crowd so much into one week is another question; but everyone is at liberty to attend or refrain from any of the entertainments, and it must be confessed that not a few give themselves reason to complain of fatigue. The continual round of gayety, the parties in which ladies are so enthusiastic, the dinners, music, ices, and grapes, tea and coffee, and open-air parties combine to banish *ennui* and make one forget the serious side of the meeting, except to seize the opportunity of hearing some prominent speaker or looking in at the section in which one feels most interest.

A rather unusual and unpleasant incident was the expulsion of a member. This step was taken on the proposition of the Council, who had tried the case *in camera*, and many members felt, and some expressed, the view that they ought to know something about the case. The officials, however, held that it was the custom for the Council to act and the general meeting to confirm. Surely it is not desirable in such a case for the general meeting to be asked to concur. It would be better for us to hear nothing of it unless by way of an appeal.

The report on hypnotism gave rise to some differences of opinion. One speaker said the whole thing was of the nature of quackery, and moved that the report lie on the table. Others held that the report was very moderate and cautious, and contained useful recommendations. Eventually it was received and the committee thanked for their services. This avoided the adoption without refusing all the conclusions. Everyone seemed to condemn public exhibitions of hypnotic phenomena, and many wished them to be prohibited by legislation. All agreed that females ought not to be hypnotized except in the presence of persons of their own sex.

This year some of the presidents of sections wisely refrained from giving an address. It would be well if all others follow this example. These addresses in the sections can be of no interest to general practitioners, and the specialists who attend can hardly need them, while the time is very limited. With more than twenty dis-

cussions and one hundred and thirty papers to be read, or taken as read, the time is utterly inadequate—only four hours on Wednesday, four on Thursday, and an hour and a half on Friday. There is a surfeit of addresses, and those who preside over sections might well spare us. All honor to those who did.

An annoying misadventure somewhat spoiled the Mayor's *conversazione* on Wednesday evening. It was held in the Natural History Museum, the size and contents of which are alike remarkable. Visitors began to arrive by 8.30 P.M., and continued for an hour to stream in. In the first room is the zoölogical collection, in the second a collection of birds, in the others geological and ethnological collections, and in the gallery original drawings by Hancock and Bewick. While these were being inspected by numerous admirers, and the crowds of other guests were chatting gayly, the Museum was suddenly plunged in darkness! The electric light had failed. A feeble flicker or two followed, hailed with cheers, but that was all, and the startled multitude began to grope their way out by the light of two or three gas jets, which, I understand, had only been fixed a week before. It was an unhappy *contretemps* for the mayor and inhabitants. Everyone felt sorry for them, but no one grumbled, and not a few seemed to enjoy the humor of the situation.

There was some talk of a more terrible failure for Newcastle. It was said that the town only had sixty days' supply of water, and that the tanks had a decrease of 1,578,477,770 gallons compared with this time last year. The sources of supply are, however, still running, and the effect of the dry summer is likely soon to disappear amid autumnal rains.

The temperance movement holds a strong position in the north of England, and the local society of Newcastle was well to the fore at this gathering. Besides this, the Medical Temperance Association held a meeting, which was well attended. Thus members had an excellent opportunity of hearing at first hand the views of their medical brethren, and listening to the eloquent advocacy of Professor Victor Horsley, Dr. Ridge, and other well-known leaders in this movement.

The Bishop's sermon was given in the beautiful cathedral of St. Nicholas, and he placed before the assembled members the claims of the Royal Medical Benevolent College, for which the collection was made.

Medical missions were the subject of an excellent demonstration in the Concert Hall. Dr. Valentine, who has spent more than thirty years in India; Dr. Maxwell, formerly of China, now of London; Dr. Fry, of the Edinburgh Medical Missionary Society, and Miss Taylor, the intrepid Thibetan traveller, took part in this meeting, which was presided over by Professor Simpson, of Edinburgh. We have made considerable progress in medical missionary enterprise of late years, but I believe America is still ahead of us in this matter.

The Annual Museum partook of the general character of its predecessors. Some interesting demonstrations were given in the scientific part, and the more commercial side was represented by the exhibition of many instruments, foods, and drugs, while a mass of what the vendors call "literature" was distributed—nay, pressed upon all comers. Although many members returned to London from Newcastle, the majority have again left, or are leaving, within a day or two. Those, too, who did not go to Newcastle are rapidly disappearing, and the exodus for the autumn vacation will soon be complete. Of course, there are still plenty of doctors hard at work in London, in spite of the common statement that "everyone who is anyone is out of town." They pursue the even tenor of their way, and can usually find consultants when they want them, for not a few take care to be at home while their friends or rivals are away.

London, August 12, 1893.

You will have learned by cable that the International Medical Congress has at length been definitely postponed until April. To some this will come as a surprise after the several rumors that have been so positively contradicted. But those who observed the advance of cholera were quite prepared for the announcement. The "sanitary anxieties of the European states," as the official statement phrases it, would probably prevent a successful congress, for cholera has already invaded Italy, and her government have, after much hesitation, resolved to act on the Dresden Convention by communicating cholera news to the signatory powers. There were ninety cases at Naples in July, and from five to fourteen deaths daily this month. A few scattered cases are also reported from other parts of the peninsula.

Here in London we are all on the *qui vive*, though a general spirit of confidence prevails that our sanitary precautions are sufficient. This feeling has been reinforced rather than diminished by the arrival of a vessel in the Thames with a case on board, the patient having been removed to the hospital and the vessel dealt with under the cholera orders and no infection having occurred. Similar occurrences in the Mersey and the Humber have been dealt with in an equally satisfactory manner. Other cases are to be expected, indeed some have already occurred, at our ports, and if only we are able to escape from an epidemic we shall be rewarded for our sanitary work and expenses. Two points are attracting attention in this respect. One is the great cost incurred by the ports, and the question whether they ought not to be aided by the rest of the country, which naturally benefits by their vigilance. The other is the possibility of a case being landed on our shores at some place distant from sanitary assistance and how this danger is to be averted. Both these questions have been freely discussed both in public and at private gatherings, and the sentiment of the profession seems to be to support the medical officers of health in all their demands.

The postponement of the International Congress of course involves a similar result as regards the Hygienic Exposition and other fixtures. Some who had arranged to be at Rome, and are yet free, are talking of how to take their holiday. Many are off to the hills or the sea, but a few are still undecided and perhaps some may substitute a voyage to America. It would be easy to do Chicago and Washington, and the Pan-American Congress would no doubt be interesting. I should be glad indeed if it were possible for me to cross the Atlantic and enjoy the hospitality of my many American friends and pupils. Small-pox is still with us, and in the country seems inclined to spread. In London, however, there is a diminution; forty-three fresh cases were notified last week, and two hundred and twenty were under treatment. These numbers are lower than for some months past.

The Vaccination Commission "drags its slow length along." For above four years it has been sitting and considering how small-pox has prevailed. There is a growing impatience at the delay. The commission has heard at great length anti-vaccinationists, unqualified practitioners, and even herbalists. Surely it is high time they were able to digest the evidence and formulate their conclusions in a report.

A report by Mr. Sydney Stephenson, on the ophthalmia that has prevailed more or less constantly in the parish schools of St. Pancras recommends alteration of diet, ventilation, and the washing arrangements, while it is urged that all acute cases should at once be sent to the Isolation Infirmary. In a recent inspection a number of the children in the school were found to be suffering from the subacute form of the disease, and as they are centres from which it will spread, the medical officer should have authority to exclude from the school every child affected with any form of ophthalmia.

The Scotch and Irish corporations are taking up the cry of their diplomates being boycotted on a fresh ground, and the discontent has made itself felt in Parliament.

It seems that the Secretary for War, by way of making some qualification for examinerships of the army medical services, proposed to limit such appointments to the past and present examiners of the two London colleges. It

was an unfortunate limitation, though no doubt made in good faith. The excluded bodies naturally cried out for their share of good things, and will, of course, get it. I shall be sorry to see the appointments confined to any examiners; for although it is plausible to say these gentlemen ought to have served their apprenticeship in the art of examining, it is well known that some have held such offices for long periods whose aptitude for the duty was by no means conspicuous, and others have suffered in their reputation as professional men and gentlemen by holding positions for which they were evidently unfit. I would recommend the War Minister to abolish all restrictions. There are plenty of able physicians and surgeons to be found who possess every qualification for the duty, and the heads of the medical departments could easily select them.

There is another case in which the old territorial distinctions of our qualifications give rise to discontent. The Royal College of Physicians was for generations a metropolitan corporation. By extending its operations it has embraced the provinces, and now provincial physicians claim a share of its offices. There has been no great objection to this, and some fellows have been appointed examiners although residing at a distance. So we hear congratulations on the liberal tendency of this ancient corporation. It is early days for this. When liberality is displayed in the admission to the fellowship, or when members and licentiates obtain some rights in the college, it will be time enough to pay attention to the self-congratulations of those who occupy the position of monopolists.

Some medical men have recently incurred opprobrium by accepting, or at any rate not refusing, a "founder's share" in a food company. Although the letter offering them stated they were "fully paid up," these words did not appear on the face of the shares, and the liquidator (for the company quickly passed into liquidation) sought to make the holders liable for the amount. The judge granted an application to remove the names from the list of contributors, but refused costs and made some strong observations on the apparent acceptance of what looked like a bribe to prescribe the company's wares. It is certainly a pity to see such an imputation incurred, but I think that these men were, perhaps, more sinned against than sinning, for I know of one case in which an attempt by a company to palm off shares on a doctor, in a more subtle manner still, was only defeated by the greatest circumspection. Every possible method of inveigling men into accepting some inducement to prescribe certain foods and drinks is resorted to by cunning traders, and no wonder these latter occasionally score a success. None the less is it a sad thing that a few thoughtless or unsophisticated men should thus be made to furnish material to newspaper writers for sneers at the profession. On the other hand, the outcry of a medical journal that such conduct is "infamous," is just a little too pronounced, considering the advertisements in its pages and the analytical puffs in its columns.

I am sorry to report the death of Mr. Arthur Ellis Durham, from diphtheria, caught in the course of his duty as resident at the Fever Hospital. He was the eldest son of the well-known surgeon of Guy's Hospital, and a distinguished alumnus of Guy's and Cambridge.

A Modified Cannon-ball Treatment of Obesity.—Dr. Felkin, of Edinburgh, uses an India rubber ball, three and one-half inches in diameter, almost filled with five and three-quarter pounds of shot, in the treatment of chronic constipation, anæmia, and obesity. The patients are instructed to roll the ball from right to left round the abdomen for five or ten minutes night and morning. One of his patients had lost ten inches in girth after five months' regular use of it. A rather smaller ball, with a less quantity of shot, he finds very useful in inducing a regular action of the bowels in young girls, who so frequently suffer from habitual constipation; this plan obviated the need for constant dosing.

EXCLUSION OF IMMIGRANTS BECAUSE OF FAVUS.

To the Editor of the Medical Record.

Sir: I have seen it stated several times in the daily papers of late that children affected with favus have been refused admission to this country, and were sent back by the authorities of this port. This, if true, seems to me to be both inhuman and not at all warrantable from a medical standpoint.

1. Favus is not very easily communicated from one child to the other. It requires not only close contact, but also a general atmosphere of uncleanliness and neglect. Ringworm of the scalp, on the other hand, spreads far more readily than does favus. The latter is more amenable to treatment. The differential diagnosis between ringworm of the scalp and favus is by no means always easy to make without the aid of the microscope. Why is favus sent back and ringworm admitted?

2. What is done for the cases of favus now existing in this city? It is wrong to suppose that the disease is strictly peculiar to certain provinces of Russia and Poland. There are quite a number of cases in which American boys have contracted it from pet animals (cats and mice). I have myself seen one such case and reported it to the Medical Record. At the Randall's Island Infant Asylum there are always some cases of favus which apparently were not imported. Is there a dispensary in this city where favus is treated properly, *i.e.*, where epilation is practised thoroughly and by trained attendants, as is done in the Hospital St. Louis in Paris? It is almost impossible to find anybody in our large and well-equipped city institutions who has the time or inclination to follow out this tedious but necessary therapeutical measure. In a paper read at the fortieth annual meeting of the American Medical Association, in 1889, I advocated the establishment of a special service for the free treatment of vegetable parasitic diseases of the skin in one of our city dispensaries. As far as I know, no step has as yet been taken in this direction. The sending back of a few "bad" cases of favus either demonstrates our inability to cope effectually with this disease, or, at best, it is one of those prophylactic half measures, which "will but skin and film the ulcerous place while rank corruption raging deep within infects unseen." (Shakespeare.)

Yours very truly,

Fred. J. Leviseur, M.D.

"Hoffman Arms," 640 Madison Avenue.

A POSSIBLE EXPLANATION OF THE VICTORIA DISASTER.

To the Editor of the Medical Record

Sir: Among the different narratives of the recent destruction of the British war-ship Victoria that have met my eye, I have seen no allusion to the possibility of incipient insanity on the part of the unfortunate admiral, as an explanation of his strange orders and subsequent vacillation in time of peril. I once had under my care a patient whose experience may possibly throw some kind of sidelight upon this disaster.

My patient was a lake captain, about forty-eight years of age, a seaman from birth, who owned and commanded the ship that he sailed. One day, voyaging in broad daylight, as his bark was approaching another, bound in the opposite direction, he suddenly ordered the wheelman to put the helm down when it should have been put up. The mate, regardless of provoking the wrath of the captain, rushed to the wheel, reversed its spokes, and thus avoided the collision that would have otherwise occurred. To his surprise, this action was ignored by the captain, and nothing was said of it until subsequent events recalled the incident.

The next symptom presented itself one day as the ship was leaving port. The captain's place at such times is upon the forecastle, or other elevated place, whence he can issue orders to the crew and to the man at the wheel.

To the surprise of everyone, right in the mid-passage through the narrow and crooked channel, the captain left his post, went down into the cabin, and curled himself up in his berth for a comfortable nap. He, however, managed to run his vessel safely through the shipping season; but when navigation was closed by winter, he began to exhibit decided symptoms of melancholia. This continued till the following spring, when his cheerfulness returned, and he embarked again for the usual summer voyages. Very soon after leaving port it became evident to all that his mind was deranged, so that he had to be deprived of command and put on shore. He rapidly developed the phenomena of "circular insanity," went voluntarily to an insane asylum, and died there in less than three years from the commencement of mental failure.

HENRY M. LYMAN, M.D.

CHICAGO, ILL.

THE NON-REGISTRY OF BIRTHS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: On page 719 of the MEDICAL RECORD, issued June 10th, is an article headed, "The Diminishing Birth-rate of the United States."

We know it is an easy matter to learn how many deaths occur, for the reason they are not allowed to bury the body without a permit and record. Now, I believe it is quite different in reference to the recording of each birth. For example, in the village where I now practise, there are about three hundred Polish families, and they are nearly as prolific as rabbits, but no record is made of the birth of these children. They are always attended by some old midwife who is not compelled to report the birth. I will venture to say, there are few physicians, in the smaller towns and country places who cannot call to mind families who never record the birth of their children. Therefore I, for one, would be pleased to know how any man can give the ratio between the birth and death rate of the United States. It is an injustice to the medical profession of this country, to record every death and not every birth, and we ought to compel foreigners and natives alike to record the births of their children.

M. L. CAVERLY, M.D., C.M.

ALBION, N. Y.

New Instruments.

NEW INSTRUMENTS FOR THE REMOVAL OF ADENOID TISSUE.

BY W. H. BATES, M.D.,

NEW YORK.

THE instruments have been in almost daily use for eighteen months, and have proved very satisfactory. The instruments are drawn a little less than one-half the actual size.

FIG. 1.

The forceps can be readily introduced behind the palate on account of their conical shape, and the gagging of the patient does not materially interfere with their use. They reach parts above and behind the Eustachian tubes. They are made of sufficient strength to cut away the adhesions and dense fibrous tissue in the region of the Eustachian tube, which often causes chronic deafness in adults. The forceps come together first at the apex, like a pruning-hook, an advantage in removing tissue from the outer portions of the vault.

Those forceps in use which have the cutting edge on part of the blades only, when used often cause pain and soreness which may last a number of days after the operation. If the adenoid tissue grasped extends below the cutting edge, it must be pulled off, causing a traction on the neighboring parts which is painful. In these forceps, the cutting edge extends all the way around, and when properly made will bite out an oval piece from ordinary writing-paper like a conductor's punch—no traction occurs and the operations are painless (patients' statements).

The palate or Eustachian tube will not be injured ev n when the patient gags, if one presses back against the bone before closing the blades.

This instrument (Fig. 2), used through the nose, is of value in removing adenoid tissue in cases which object to operations through the mouth. The instrument can be used through the nose where an Eustachian catheter can be passed. It is curved sufficiently to reach parts of the vault more than half an inch below the level of the floor of the nose. The tip can be turned in all directions, and the curve does not interfere with the working of the instrument when the tip is turned. The instrument is strong enough

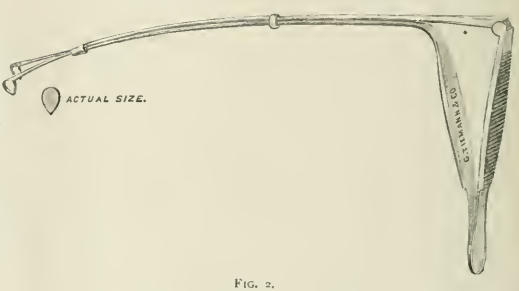

FIG. 2.

to remove the fibrous tissue found in the vault in adults. The cutting blades are similar to the first instrument, but smaller. This instrument is also of value in removing nasal hypertrophies, especially from posterior portions of middle and inferior turbinated bones.

I am indebted to Mr. Childs, of the firm of G. Tiemann & Co., for many valuable suggestions.

131 WEST FIFTY-SIXTH STREET.

A NEW LACHRYMAL PROBE.

BY G. W. CALDWELL, M.D.,

NEW YORK.

LATE RESIDENT SURGEON NEW AMSTERDAM EYE AND EAR HOSPITAL; INSTRUCTOR IN OPHTHALMOLOGY, NEW YORK POLYCLINIC.

I WISH briefly to invite the attention of the profession to a new design of lachrymal probe which I have found to be a very satisfactory instrument. It consists, as indicated by the accompanying figure, of a small wire staff 11 ctm. in length, in the middle of which is soldered a plate for convenience in handling. On each end is a bullet-shaped tip 1 ctm. long, with a conical point and abrupt shoulders as in the urethral bougie à boule. These tips are graded, as are Theobald's probes, in successive numbers, each unit of which represents one-fourth mm. of diameter. The shoulders are intended to emphasize the properties of an obstruction, while the length is sufficient to allow it to be retracted into, and held by, a stricture, for the purpose of dilatation. A complete set comprises seven double-ended probes numbered from 1, which is the staff alone, to 14, the largest size. They are made, according to my design by Tiemann & Co., New York.

The advantages of the probe are that while, for the purpose of dilatation it possesses all the essential properties of Bowman's, Theobald's, or any other now in use,

it also affords the additional advantage that with it a diagnosis of the location, length (allowance being made for the length of the tip), calibre, and character of an obstruction may be accurately made. The small size of the staff avoids traction at the inner canthus, and therefore the pain of its passage is less. The entrance of the probe into the space between the inferior turbinated body and the outer wall is immediately manifested by the loss of resistance. It is not therefore necessary to carry it to the floor of the nose to be assured that it is in the nasal space.

In preparing wet anatomical specimens I have observed that not infrequently the inferior turbinated body rolls upon itself in such a manner as to lie in the course of a

probe projected through the nasal duct. When we remember that the nasal duct is only one-half to three fourths of an inch in length the reasonable suspicion must arise that this anatomical arrangement may possibly explain some of those so-called "very firm strictures which are occasionally encountered at the lower extremity of the duct," to overcome which probes of such extraordinary strength and length have been advised. In other cases the antral wall encroaches so far upon the nasal space that an ordinary probe on its downward course impinges upon the outer wall at an acute angle, when, if the force is continued, the periosteum is lacerated and pockets formed which complicate the case. These accidents can hardly occur in the use of this probe, as its escape from the nasal duct is immediately indicated, and we need not be seriously concerned about what the probe may encounter further down.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending August 26, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	40	6
Scarlet fever	30	6
Cerebro-spinal meningitis	2	5
Measles	80	11
Diphtheria	104	27
Small-pox	2	0
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

Gratitude Does not Last.—In a recent address to medical students, delivered by Dr. Kelley (*The Cleveland Medical Gazette*), the following pertinent remarks occur: "There are those who seem to imagine that the deified dignitary known as the physician is borne aloft in an atmosphere unknown to common mortals, fragrant with the incense of grateful hearts. Now, let me advise you—any among you who may realize your desire to become a physician—if ever the time comes that gratitude is poured out upon you, as it will be, enjoy it—pause and enjoy it as you would the perfume of a fragile flower—for it will not last—it will not last. Perhaps I should not say to young people so cynical a thing, but I doubt the very existence of lasting gratitude. As a matter of fact the doctor is often treated with basest ingratitude. Why, I know numbers of people who owe to my efforts their lives or limbs, or the use of their faculties, as surely as if I had plunged into a swollen torrent and rescued them from drowning, or had dragged them timely from before the wheels of the lightning express, and who not only owe, and intend always to owe, a modest bill for professional services, but who never lose an opportunity to attack the reputation of their benefactor. Every physician has the same experience, and it seems inherent in the ingrate patient to slander. Probably it is in defence of himself before his accusing conscience, if such creatures have a conscience, or before some neighbor, that the wretch feels compelled to trump up some lie as an excuse for his conduct. He will stand up barefaced and say he "was not treated right," when his own presence in this life is a denial of his assertion. If he had not been treated right his mean little soul would ere this have left his body and gone where—no good spirits go."

Salve for Rheumatic Pains.—*L'Union Médicale* gives the following:

℞. White wax	5 grammes.
Adeps	15 grammes.
Add to this, when sufficiently cool,	
Chloroform	3 grammes.

A layer of this preparation is to be spread upon a compress held in place by a bandage. Wax is added to the ordinary base to retain the chloroform longer and thus obtain a greater analgesic effect.

The Dangers of the Barber Shop.—The report of a case of tuberculosis of the bearded face will direct attention to the danger of transmission of tuberculosis through the intermediation of the instruments used by the barber. To prevent such an occurrence each individual should have a separate brush and cup and napkin and razor. If one razor is used in common it should not again be used before having been placed for a short time in boiling water and dried, while persons who present themselves to the barber with diseases of the bearded skin should be advised to consult medical men.—*Medical News.*

The Transmission of Cholera by Means of Flies.—It has been proved that tubercle bacilli are found in the excreta and bodies of flies that have been feeding on phthisical sputa, and it has been suggested that it is possible for tuberculosis to be spread by these means. In the *Centralblatt für Bakteriologie und Parasitenkunde*, Band xii., p. 25, is a communication from Dr. Sawtschenko, who has found that cholera bacilli possessing all their virulent properties can be demonstrated for at least four days in the intestinal canal and dejections of flies that have been feeding on the stools of cholera patients or on the intestinal contents of those who have died from the disease. He also produces evidence to show not only that the bacilli pass through the intestinal tract of flies, but also that during the passage actual multiplication takes place. It is likewise an interesting fact to observe that the longer the interval of time which is allowed to elapse between the period of infection and the examination of the dejecta the smaller is the number of saprophytic organisms present and the larger that of the cholera bacilli. Control experiments were made with flies which had been prevented from incurring chance inoculation, and negative results followed. Dr. Sawtschenko, therefore, is of opinion that flies may act not only as carriers of the morbific agent of cholera, but also as hosts of the bacilli.—*The Lancet.*

Idiosyncrasy in the Action of Quinine.—Dr. Khaikhusara Jivanji reports in the *Indian Medical Record*, the case of a lady suffering from diabetes for whom he prescribed a mixture containing only a grain and a half of the sulphate of quinine, to be taken thrice daily. Immediately after taking the first dose she felt a troublesome itching on the lower lip, on the lobe of the left ear, and on the dorsum of the left foot, resulting, in about an hour's time, in inflamed patches with troublesome irritation. This irritation passed off in about forty-eight hours, leaving dark spots which still exist. She stated that when-

ever she took quinine in any form the result was the same. On one occasion I prescribed for her Easton's sirup in half-drachm doses, with the same result, but this time the left lobe of the ear and the left cheek alone were affected.

Vomiting during Anæsthesia may be arrested by compression of the phrenic nerve and vagus. Dr. Joos, of the Cantonal Hospital, at Winterthur, applies compression with the thumb on the left side, immediately above the sternal end of the clavicle. The hand is held flat on the thorax, and the thumb is parallel with the clavicle. In Dr. Joos's experience the vomiting and hic cough forthwith cease. He also suggests that this treatment might be useful for the relief of sea-sickness.—*Medical Review.*

A Case of Supernumerary Spleen.—Surgeon G. Harrison Younge reports the following case in the *British Medical Journal:* Private M. D—— was admitted into the Station Hospital, Malapuram, March 28, 1893, suffering from enteric fever. From the first the range of temperature was very high, and the symptoms very severe. He died on April 4th, from hyperpyrexia, his temperature at the time of death being 108° F. The post-mortem examination showed unusually deep and extensive ulceration of Peyer's patches and the solitary glands, several of the ulcers varying from one to one and a half inch in diameter. There was hypostatic pneumonia of both lungs. The left lung was firmly adherent to the parietes and diaphragm over its entire surface. A mass of calcified tubercle as large as a hazel-nut was found in its apex. The spleen weighed fifteen ounces, and was congested and friable. Lying almost in contact with its lower border was a supernumerary spleen. The latter was one and a quarter inch in diameter, was perfectly circular in shape without any attempt at a hilum, was attached to the spleen by a distinct fold of peritoneum, and was supplied by a special branch from the splenic artery. On being cut into it presented the usual appearance of a spleen which was congested and friable.

A Phenomenal Fee for an Operation for Rectal Fistula.—It is not perhaps very extensively known that Louis XIV. of France was one of the first to undergo the ordinary operation for rectal fistula—that is, of slitting up the fistulous tract with a bistoury. In the month of January, 1686, or more than two hundred and seven years ago, great consternation was caused in the Royal *entourage* on account of the king's great complaint of pain in the region of the anus. The sudden seizure was surrounded with a perplexing amount of mystery, owing to the fact that every one appeared to be ashamed to mention its fundamental character. The concurrence of opinion, however, among the attending physicians and surgeons was that the disease was an abscess in the neighborhood of the anus, and the suggestion was made to lance it; but as nobody seemed to know what the result of this would be, the king declined to submit to the treatment. However, after the lapse of twenty days, wiser counsels prevailed, and the king agreed to have the abscess opened by means of caustic. This was safely accomplished, and soon the bald truth presented itself to the surgeons that they had a fistulous tract communicating with the rectum to deal with. Now the trouble began. The whole court put its head together in order to determine what was best to be done, and to suggest remedies. So many enterprising suggestions were made in this direction that it was considered advisable to retain the services of four patients with fistula of the rectum, and these were taken from place to place for the purpose of submitting to the various forms of treatment with a view to testing the value of the latter before they were applied to the king. Sad, however, to relate, a year went by without a single cure resulting from any of these experiments. In this trying dilemma, Bessiers—a celebrated surgeon of the day—was called in, and in an aphoristic dictum he informed the king that "all the remedies in the world are of no account without an operation." This opinion helped matters forward considerably. The king summoned Felix—a barber-surgeon—to his presence, and a consultation was held as to the best method of operating. The ligature was greatly in vogue at the time, but Felix pronounced for the bistoury, and promised the king that if this plan were adopted a speedy cure would result. Nevertheless, Felix had never performed the operation himself; in order, therefore, to get his hand in, he operated on all the fistulous patients in the hospital, and successfully. The great day arrived, Monday, November 18, 1687. At daybreak the apothecaries entered the King's bedroom and gave him an injection. A little before seven the operation was performed without difficulty; lint was applied to the wound, and covered with an ointment of yolk of egg and sweet oil, and fixed by a pad and bandage. Then the rejoicings took place. Every one praised the bravery and firmness of the king. All his courtiers called on him at the earliest opportunity, and every one of them who had a fistula or pile desired to be operated upon immediately. Indeed, it was stated at the time that "the entire court had its tail examined in the hopes of being operated upon." But to make a long story short, everything turned out well in the end. Plugging the wound from the bottom was not known in those days, and therefore, owing to too rapid healing, it was found necessary to reopen the wound; but after this a complete cure resulted. The honors were chiefly due to Felix: the king gave him 300,000 francs, made him a present of a landed estate, and also ennobled him with a title! In comparison with the fees which surgeons are able to get for such an operation in the present day, the only conclusion possible is that surgery must be "played out."—*Medical Press.*

The Doctors of Hawaii.—According to the description of native Hawaiian doctors, given by Dr. H. Stedman, they are dependent, almost entirely, upon luck and strongly constituted patients for the few cures they seemingly effect. Dr. Stedman is an Australian physician who has made a tour of the Sandwich Islands; he tells some amusing stories about his intercourse with his Hawaiian brother-practitioners He says they are unconscious frauds and believe thoroughly in their ability to heal. Their treatment consists chiefly in prostrating their forms and supplicating the deities for their divine assistance in dissipating the infernal spell which holds the unfortunate in bondage. They have a vague idea of the utility of massage; but they administer this treatment so brutally, with their clenched fists, that the poor patient usually prefers death to its continuance.—*Medical Fortnightly.*

Medicines in the Days of Queen Mary.—Not many remedies of Queen Mary's time retain a place in the modern pharmacopœia. Cardano recommended bark of Indian wood, cinnamon, caryophyllum, colocynth, camphor, cyclamen, viola, turpentine, hops, anise, senna, poppy, mustard, myrrh, wormwood, agrimony, lichen, privet, rue, raisins, hyssop, crocus, marjoram, scabious, figs, honey, and many more; and he earnestly urges the use of a remedy which he had tried himself for breathlessness accompanied by bad cough: Take the lungs of a fox and forthwith wash them with wine and dry it in a furnace to a cinder: powder, and mix well with the yolk of an egg. Among his external remedies, one which was evidently a prime favorite, was that which he applied over the sutures of the skull, and especially the coronal, and which he found a grand remedy for bringing away the humors of the brain. It was composed of Greek pitch and ship's tar, white mustard, euphorbium, and honey, sharpened, if necessary, by the addition of blister fly. He had unbounded faith in the efficacy of elaterium—two grains dissolved in four ounces of goat's or cow's milk and as much water, this to be drawn through the nostril when the patient was fasting. He had found that when this remedy was used a very copious discharge of humor took place from the nostrils.—*Blackwood's Magazine.*

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FURTHER CONTRIBUTIONS TO THE PATHOLOGY AND THERAPY OF NEURASTHENIA SPINALIS.[1]

By LEONARD WEBER, M.D.,

NEW YORK.

In a paper entitled "The Present State of Treatment of the Chronic Diseases of the Spinal Cord, and Especially of Neurasthenia" read by me before the Neurological Society of the city of New York last year, and published in the Medical Record, May 28, 1892, I endeavored to give a *résumé* of the subject from the time of Beard, who coined the name and drew a clinical picture of the disorder which has not been surpassed by other authors. From a not inconsiderable clinical experience of my own I related some interesting cases of neurasthenia gravis, and in concluding showed, I believe, that in the way of curing it we had not made much progress, but had learned to understand the general character and management of the disorder better now than we did some years ago.

In taking up again the study of the subject it seems to me that there are even now more routine and set modes of treatment for neurasthenia than nice discrimination and careful adaptation of remedies to the special indications of individual cases. Given, for instance, a case of neurasthenia from sexual or other causes, and the patient's urine showing a specific gravity of 1028 or more and highly acid reaction, it will be always latent gout with certain practitioners—malaria having taken a back-seat for the present. Buffalo or Londonderry lithia or Vichy water will be given freely, and the patient be ordered to follow a particular diet, take Turkish baths, and special gymnastics. In the great majority of such cases it is the asthenic neurosis that produces the functional disturbances of the abdominal viscera through deficient innervation of the same, making perfect digestion and assimilation impossible. The presence of an excess of uric acid being then often an effect and secondary cause of nervous irritation, the treatment prescribed may relieve the symptoms of acid dyspepsia, etc., but will not remove the underlying disorder.

There are others who will apply their treatment to the central nervous system at once, and choose electricity in one of its three modes of application to the exclusion of almost all other remedies. The electric current will relieve the neuralgias, dys- and par- æsthesias so often associated with neurasthenia, and it will do a little more in the way of producing a refreshing and tonic influence upon the patient when applied in the morning hours, during which his condition is generally lower and more wretched than at other times of the day; but those effects will soon pass away, and as often as repeated pass away again. However, electricity is a good stimulant and tonic in these cases, it will maintain its place in the order of remedies good to help along, but it does not cure them.

Others, again, put all their faith on hydrotherapeutics. If applied judiciously and for a sufficient length of time, under the supervision of an expert, at a sanatorium located in a first-rate climatic resort in a dry and healthy mountain-valley, not more than 1,500 to 2,000 feet above the sea level in the northern parts of the United States, the results obtained by hydrotherapy in properly selected cases will be good, even very good. Yet there are cases of neurasthenia enough to be met with, in which either the blood-circulation is too feeble or the reactionary power not strong enough to bear such treatment to begin with, aside of certain idiosyncrasies or complicating catarrhal or renal troubles by which it may be positively forbidden. To follow this mode of treatment without exception would be as illogical as to practice exclusively either of the first two, and would lead to frequent disappointments.

In dealing with so complex a neurosis as cerebro spinal neurasthesia it goes without saying that we must carefully individualize and minutely examine into the etiology of a case and the mode of life of the patient before we can map out a plan of treatment which is likely to do him good.

First in the order of frequency among the etiological factors I should like to place sexual disorders, such as masturbation more or less prolonged in early life in both sexes, though more frequently in the male than the female. This abuse, with its frequent discharge of a highly albuminous liquid, nervous excitement, and concussion of the brain and spinal cord by the sexual orgasm often repeated, when early begun and continued for some years, as we often learn from the confession of the unfortunates, must necessarily hurt the cerebro-spinal nervous system, in fact the entire organism, and retard and impede its growth to healthy, vigorous manhood; it must and does affect the intellect, enfeebling memory, sound judgment, and will power, though much less so in those who come of healthy and vigorous parents than in those afflicted with the neurotic taint.

From the extreme degrees of mental and physical bankruptcy caused by excessive and prolonged indulgence of the pernicious habit, from which no such restoration of the abilities can be had as to allow the victim to be on equal terms with able and vigorous men in the active pursuits of life, down to mild degrees of mental unrest and pretence of physical woes due to sexual errors that were as quickly stopped as begun, all shades and varieties have been seen and noted. In very young children epilepsy and idiocy may be induced, the adolescent will be made a weakling by it, and not infrequently remain so, the full-grown man when led to the vice in or out of married life through various and often peculiar circumstances, will suffer more in his mind and general moral tone, and be made miserable by cerebral asthenia.

Now, the first thing to be done in cases of sexual neurasthenia is to put a stop to the ever-present reflex excitability by the bromides. From long experience I give the mixture of the three bromides, in preference to a single one of the salts, and generally succeed by them alone or after adding the daily cool sponge-bath, or tepid half-bath, or wet sheet with body-friction on rising. The prostatic portion of the urethra in many cases needs attention, and the steel-sound passed three times a week down and a little beyond the caput gallinaginis of the prostatic portion, and kept in position for five minutes will soon diminish the hyperæsthesia of those parts. The patient will soon learn to pass the sound himself, but he must be careful not to enter the bladder with it. In cases with very great irritation of the prostate, and discharge of a glairy fluid on slight provocation, I have found it useful to use, besides the sound, injections of mild solutions of tannic acid or sulphate of zinc with any of the syringes in vogue for posterior urethral injections. Where the bromides would not help, or were not well

[1] Read before the American Neurological Association at their nineteenth Annual Meeting, July 26, 1893.

borne by the stomach, atropia, in doses of from $\frac{1}{200}$ to $\frac{1}{100}$ grain given daily have been of service. Within three months generally the patient's condition is so far improved that, iron when indicated, or the hypophosphites with cod liver oil may be given. These remedies and suitable hydriatric procedures, and the further but less frequent use of the steel sound I have frequently continued with for two and three and more years, with timely interruptions, to be sure. Most of these patients are also more or less troubled with atonic dyspepsia, associated with much eructation and flatulence and constipation, the latter much more often than diarrhœa, which again we encounter more frequently in other forms of neurasthenia. These intestinal troubles are easily relieved by proper and nutritious food with a preponderance of meat, and by well-known drugs, of which nux vomica with bismuth and soda before and a little muriatic acid after meals, I am in the habit of prescribing oftener and with better results than anything else. In neurasthenic dyspepsia, as well as in many stomach disorders of persons of sound nerves, we shall often go far from the truth if we simply suppose that a patient with the rational symptoms of chronic catarrh of stomach must have chronic gastritis, based upon anatomical structural lesions of the organ. Our methods of examination are now better than they were, and, in most cases, will not leave us long in doubt about the presence of organic change, but, so long as nothing serious is disclosed, our patient will do better by getting the benefit of the doubt, and the proper treatment for functional disorder.

We have learned of late that functional disorders of the stomach, *i.e.*, insufficient action which may be classified as sensory, motory, or secretory insufficiency, or combinations of them, are far more frequent among the causes that underly dyspepsia than the so-called chronic gastric catarrh. To properly diet such patients and correct and improve their conditions and surroundings and mode of life will be apt to help them and cure their dyspepsia, while special and active treatment of the organ, which is not the seat of catarrhal inflammation at all, will do harm. I am also in the habit of using electricity in the form of the galvanic current, in cases of sexual neurasthenia, where its use is indicated by local pains or hyperæsthesias; general faradization or static electricity, or muscle massage and resisted movements are said to do good where there is great and constant feeling of fatigue and muscular faiblesse. Last, but not least, these persons must have occupation and do suitable work without over-exertion and fatigue, but should also have frequent change of scene, travel, and the like, until considerable improvement is accomplished. As to relative recovery in neurasthenia from masturbation, provided the habit is promptly discontinued, the prognosis is good, with the exception of certain extreme cases mentioned above. Cases are met with where the desire is stronger than the power to resist, and the patients again and again relapse into the baneful habit. What is best to be done then? We may try to stop it by hypnotic suggestion. In his lucid and comprehensive book on the practice of hypnotic suggestion, by George C. Kingsbury, of Dublin, a successful case is mentioned by the author; I have tried it after Liébault's method with success in two cases. Now, when such unfortunates tell us that they have ceased to indulge after going down on their knees and uttering a fervent prayer to the Almighty to help them, and give them strength to withstand the temptation, and have risen with the firm resolution not to, and a consciousness that they will not do so again, and then really have not relapsed, they have probably done nothing else but cured themselves by auto suggestion.

Next in the order of frequency I should like to put cerebral and cerebro-spinal neurasthenia brought on by excessive sexual intercourse, and by coitus reservatus, *i.e.*, withdrawal before concluding the act. In some of these cases cerebral, in others spinal symptoms will predominate according to the individuality and occupation of the patient, and, aside of the measure of over-indulgence will be the more severe the more the patient's occupation and mode of life will act as additional factors in exhausting his nervous strength. "*Cessanta causa cessat effectus*" is particularly true here, the prognosis generally good, even as to perfect recovery, and the bromides, suitable hydriatric procedures, and the urethral sound will be all that is required. In the beginning of treatment I have found it of great service in the severer class of cases to insist on temporary conjugal separation, in order to allay the troublesome cerebral irritation.

Less frequent but more serious are the grave forms of neurasthesia by severe and protracted mental strain, associated with great responsibility and frequent anxieties, particularly when considerable physical or sexual demands have had to be satisfied also. We meet these in the large commercial centres among business as well as professional men more than anywhere else. It is here we often find greatly diminished tendon and cutaneous reflexes, very great muscular feebleness and feeling of fatigue after slight efforts, flatulent dyspepsia, tendency to diarrhœa, feeble heart's action with subnormal morning temperature, cutaneous affections in the form of eczema and the like; which symptoms show that the functional activity of the ganglionic cells has been greatly reduced by deficient nutrition or some derangement of their construction and physiological life which may be readjusted in the course of months or years, but may also go on to irremediable degeneration and leave the patient a chronic invalid. What has come under my treatment of cases of this type was already chronic when first seen by me. I am conscious of having done my best by a combination of our remedies to help my patients to regain health and vigor, but I cannot remember to have really cured one. Here again, after eliminating the presence of organic disease, we have a right to try hypnotic treatment. The author mentioned above, Dr. Kingsbury, in his "Casuistics," states the following important case:

"M. T——, aged forty-six, a very successful American merchant, had, owing to overwork, become thoroughly out of health, sleepless, irritable, anxious, depressed, easily startled, restless, and physically weak; he could only read for about half an hour at a time, and then became confused and suffered from pain in the head and spine. He expressed himself as thoroughly 'tired of life.' The last two years he had spent in travelling all over Europe in search of health, and had tried every form of treatment, including hydropathy, electricity, massage, and even suspension. He had lost all hope of being cured, and, though he had no faith in hypnotism, had determined to try it, so that he could not be reproached with having neglected anything.

"In all he had six sittings, on six consecutive days; and at the end of this time he was sleeping, walking, and eating well, and felt able to resume his work. He could not, however, believe that so marked an improvement would last, and fearing a relapse he remained under observation a month. He then stated that not only had he kept well, but he had continued to improve, and was about to set sail for America, 'feeling better than he had ever remembered to have been in his life.'"

Other observers claim to have had noteworthy successes with hypnotic suggestion, and in a recent correspondence with Professor Erb, upon a particularly severe case of chronic neurasthenia gravis from mental and physical overwork, he also advises that it be given a fair trial. I regret that my experiments with it in this particular case had to be interrupted when scarcely begun and cannot be reported therefore until later. Hypnosis should also be eminently useful in traumatic neuroses, inasmuch as in some cases terror has probably as much to do with producing the often fearful prostration and nervous asthenia as concussion; and hypnotic suggestion might prove of great value in removing its baneful influence upon the ganglionic centres. A few cases of neurasthenia, two of them rather severe, have been seen by me in syphilitic persons, after too prolonged inunctions with mercurial ointment, and some, again, due to syphilis

alone. The prognosis is not unfavorable as to early recovery, unless the underlying disease complicates matters. It will probably interest those of you who may not have had occasion to watch many of those people who are in the habit of dosing themselves regularly with Carlsbad salts for the purpose of keeping their bowels regular, that relatively small doses of sulphate of soda, not more than is contained in two drachms of Carlsbad salts, taken daily for some six weeks or longer, will be apt to produce pretty profound symptoms of neurasthenia in persons who are not robust by nature. Since my attention has been drawn to this peculiar action of sulphate of soda, in a case where I could eliminate every other cause, I have read of two similar cases of the kind reported by German observers. I have no reason to believe that the neurasthenic trouble in my case was due to diarrhœa, for the patient in question was too careful to take more than was just requisite to move his bowels. Aside from gastro-intestinal dyspepsia, and subsequent deficient nutrition of blood and nerves and muscles, it is not unlikely that the drug may have some directly poisonous effect upon the nervous system. With reference to an early cure of such cases, I can only say that it took my patient nearly a year to get well again. So far, then, experience has shown that neurasthenia is generally manageable, but not directly curable, and that, though it can be readily understood why a physician will prefer to apply at the outset the mode of treatment which he has practised most and is thoroughly conversant with, he can rarely hope to effect a cure by a single remedy, but will be better able to help his patient toward recovery by a wise combination of means and rules. We also know of chronic cases to have made a final recovery after many years' duration without further special treatment, and, therefore, it may be reasonable to expect that, by further and more extensive trials of hypnotic suggestion, and other means similarly direct in their action upon the central nervous system, we may succeed in relieving the state of functional derangement and hyperæsthetic weakness, better and faster than we have done.

25 West Forty Sixth Street.

OUR SCHOOL BUILDINGS, THEIR CONSTRUCTION, HEATING, VENTILATION, SCHOOL HYGIENE, PHYSICAL CULTURE, ETC.

By VALENTINE BROWNE, M.D.,

HEALTH OFFICER OF YONKERS, N. Y.; CONSULTING PHYSICIAN TO ST. JOSEPH'S HOSPITAL, ETC.

The holidays are past and the pupils of the various schools are once more required to resume their studies and thus prepare themselves for the many and varied occupations they will be called upon to pursue in the near future. In view of this fact may we not be permitted to ask those to whom we confide the education of our children a few pertinent questions in relation to the school-buildings, the class rooms, the mode of heating, ventilating, and air space, etc. ?

1st. Have you the necessary number of school-buildings for the reception and proper care of our children ?

2d. Are your teachers well qualified, from their home and school training and experience, to teach our children ?

3d. Have you well-appointed gymnasiums in connection with your schools ?

These are important questions, and every one of them should be answered in a satisfactory manner. Some of our school houses are manifestly unfit for use in these respects and should be relegated to the ranks of long past and superannuated curiosities.

What a School-building Should be.—Some few years ago the Board of Education of New York City appointed a committee with power to award a valuable prize for the best plan of a school building. After carefully examining several plans, the one selected embraced the following general conditions :

1st. At least two sides of the building should be freely exposed to light and air, for which purpose it should not be less than sixty feet distant from any opposite building.

2d. Not more than three of the floors spould be occupied for class rooms.

3d. In each class-room not less than fifteen square feet of floor space should be allotted to each pupil.

4th. In each class-room the window space should not be less than one fourth the floor space, and the desk most remote from the window should not be more than one and one-half time the height of the top of the window from the floor.

5th. The height of a class-room should never exceed fourteen feet.

6th. The provision for ventilation should be such as to provide for each person in a class-room not less than thirty cubic feet of fresh air per minute, which amount must be introduced and thoroughly distributed without creating unpleasant draughts or causing any two parts of the room to differ in temperature more than two degrees Fahrenheit, or the maximum temperature to exceed seventy degrees Fahrenheit.

7th. Heating the fresh air should be effected either by hot water or by low-pressure steam.

8th. The fresh air should be introduced near the windows; the foul air should be removed by flues in the opposite wall.

9th. Water-closet accommodations for the pupils should be provided on each floor.

10th. The building should not occupy more than half the lot.

Most of these recommendations are excellent, but in our opinion there are some very important features omitted, such, for example, as the location of the building in its relation to dampness and troublesome noises, the formation of class-rooms and corridors, the location of drain-pipes, water-closets, and other seemingly insignificant yet important details.

The school-building should, in addition to complying with the above recommendations, be located, if possible, on a dry, porous soil, on a knoll or other elevation, away from noisy public thoroughfares and distant from shade-trees, so as to permit free access of sunlight into every class room, and ample play-ground for the children. In case the above-named condition cannot be procured and a school-building must be placed on a moist soil, then the following suggestions should be adopted :

1st. The location of the building should be thoroughly drained by constructing a ditch outside of, and lower than, the foundation-wall, and then filling it in with loose stone to a depth of from twelve to eighteen inches.

2d. One or two similar drains should be made in the cellar and conveyed to a safe place to discharge. The cellar floor should be made water-proof by not less than six inches of well rammed concrete, or by asphalt, as recommended by Colonel Waring.

3d. The foundation-wall should be protected by a coating of asphalt, and a like coating or layer should be placed in the wall just above the ground to prevent dampness from ascending, and a hollow place should be left in the wall between the outer and inner layers of brick or stone so as to admit air and prevent moisture, and for the same reason the plaster should not be placed directly on the wall, but the wall should first be furred, lathed, and then plastered.

4th. The cellar floor should not be more than three feet below the surface of the ground, and the ceiling of the cellar or basement should be at least ten feet high, and it should be thoroughly lighted and ventilated, and should not contain a single water-closet, but should be kept scrupulously clean at all times.

5th. Cesspools and privy-vaults when used (in the absence of sewers) should never be located at a less distance than seventy five feet from the school-building.

6th. The class-rooms should be, in addition to the conditions before referred to, separated by a corridor not less than ten feet wide and extending from front to rear of the building, and the school house itself should always

front either north or south, so as to have the class-room windows on one side face the east and on the other side face to the west, thus securing sunlight in every room.

7th. The building should not be more than three stories high (except in large, densely populated cities), the two lower floors to be used for class rooms and the top floor for water-closets and a gymnasium.

Drainage of Waste Material.—The system of conveying sewage from the school-house is one of the most important features in connection with school hygiene, and demands the utmost precaution at the hands of the authorities. Water-closets should never be placed in the cellar or basement of a school building, because experience has shown and proved that it is utterly impossible to keep them in anything approaching a sanitary condition. Every person acquainted with the law of the diffusion of gases will at once admit that the natural tendency of them is to ascend, and that this upward tendency is very much enhanced by the warm air on the floors above creating an upward current, carrying with it the offensive and dangerous odors from those water closets. It requires no scientific demonstration to show with what facility those foul odors permeate every room in the building, because you have a practical illustration of the fact from your own kitchen during cooking hours. If you have any lingering doubt on this point just ask the cook to place some onions in the frying-pan over the kitchen-fire, or some carbolic acid, or oil of peppermint in hot water, with directions to stir a little, and then elevate yourself to the top floor, and you will be surprised to find the odors of those rosebuds there before you. If now you transfer the kitchen to the top floor, and tell the cook to repeat the dose, while you descend to the basement, you will not, you cannot, detect the invigorating perfume from those articles; hence the necessity of thorough cleanliness in cellars, and hence the absurdity and danger of placing those ill smelling closets in the basement. The most appropriate and the most sanitary location for these closets is on the top floor of the house, and when proper precautions are observed in the arrangement of them, there cannot be the slightest objection to their presence there. These closets should be located at one end of the top floor, separated by a solid stone wall from the rest of the floor or gymnasium. They should be reached by means of an iron staircase, constructed on the outside of the building, with appropriate landings and connections for each floor. The staircase should be partly enclosed, somewhat after the manner of the elevated railroad structures, to provide against inclement weather. The drain pipes should be of the best material, and should be thoroughly exposed along their whole course within the building. They should be located in a well lighted portion of the building, so as to enable the janitor to detect at once the slightest leak or other defective feature in them. Again, the danger of taking cold by exposure to cold air and draughts on the way to and from water-closets placed outside of the school-building, would be reduced to a minimum.

Some of our school boards congratulate themselves on providing water closets or vaults some twenty or twenty-five feet away from the school-building without any enclosed passage-way leading to them, thus, they say, excluding from class-rooms all danger from sewer-gas. I know many such cases, but there is one in particular where the school board for several years maintained two huge vaults, one on either side of the school-building, and hardly thirty-five feet distant, provided with no ventilation except what escaped through some lattice-work over the centre of the enclosure, extending not more than fifteen feet from the surface of the ground. It mattered little which way the wind blew, it was sure to convey the decomposed, sickening air from one or both of these vaults into the school house. Some improvement has been lately accomplished by converting these vaults into water-closets, but the location and ventilation remain the same as formerly.

Would it not be inconvenient for children to climb two flights of stairs to reach the top floor? Not at all. It would only reverse the condition of climbing. In case the closets were on the ground floor, or outside of the building, they would first come down and then climb the stairs, instead of first climbing and then descending. Besides, when stairs are properly constructed, the labor of ascending them will be a source of physical exercise, which the pupils should have.

While speaking on the subject of stairs in school-houses, perhaps a few remarks on their general construction may not be considered a digression. Stairs in a school-building should never be placed in dark, out-of-the-way corners, but should be located one at either end of the corridors, and facing the door and windows so as to be thoroughly lighted by the glass swinging vestibule-door and windows. Stairways should be fire-proof and provided with at least one landing half-way up, but should never be winding or spiral-shaped. "The tread should be wide and easy to climb. That portion of the corridors between the door and staircases could be utilized for clothes-closets, and these closets should be so constructed as to admit plenty of fresh air to the wraps." They should have ventilating tubes leading from the top of the same to a properly constructed ventilating flue provided in the wall of the corridors, so as to prevent possible contagious vapors ascending to the class rooms from the wraps of the children not over-cautious in the care of their garments. Measles, scarlet fever, and diphtheria are often communicated by means of these wraps when not properly aired and ventilated. Class-rooms, as before stated, should be large, well ventilated, and in addition to the windows opening directly to the outer air, should also have not less than two windows, each say two and a half feet by three feet, opening into the corridor near the ceiling, and arranged so as to open and close at will, thus enabling the janitor to thoroughly flush the rooms and corridors during recess. By lowering the large windows and opening the small windows on both sides of the corridors a rapid current is at once established which will effectually remove all impure air and foul organic matter usually found near, and often adhering to the upper portions of the walls and ceiling. In no other way, and by no known system of ventilating shafts can these impurities be so thoroughly removed from the class-room ceiling.

Class rooms should be large enough to allow each pupil three hundred cubic feet of air space. This would require for a class of fifty pupils a room twenty-five feet wide, fifty feet long, and twelve feet high, or fifteen square feet of floor space for each scholar. How many school boards furnish this amount of space? We pause for a reply.

Desks and Seats.—Desks and seats in class-rooms should be placed so as to admit light on the left side of the pupil, and the most remote desk should not be more than twenty feet from the window on the left, and each scholar should have the sole use of one desk. There seems to be some difference of opinion as to the size, shape, and position of desks and seats in the class-room. Some think that a desk should be nearly flat, while others say it should be tilted "In my opinion it should be nearly flat for writing on, and its edge should project over the front of the seat or chair, and the height should be so arranged as to allow the arms to slide over it without lifting the shoulders." While reading, however, the lid should be tilted so as to form a convenient book-rest. Desks embracing these qualifications can now be procured at very reasonable terms

Perhaps there is more difficulty in supplying the ideal seat or chair to suit the various notions not only of the pupils but also of the teachers, or rather the school authorities, than in the selection of any other article of school furniture. Some believe that it is necessary to support only the lower third of the back; others declare in favor of a chair with a curved back; still others say that support is needed for half the back; yet others would allow only a narrow strip for the support of the

spine, while quite a number would do away with chair backs altogether.

Between these conflicting opinions it seems hard to decide what sort of a chair to select. In my judgment the chair having a straight, upright back, somewhat concave from side to side, is the most appropriate for general school use. This kind of chair, I think, will be found the most convenient for writing, reading, drawing, copying, ciphering, etc.; in fact, for all work requiring an upright position.

Seats should not be placed too far from desks, but should be so placed as to allow the edge of the desk to overlap the front portion of the chairs. Desks and chairs thus shaped and placed will enable the teacher to correct many faulty positions so often assumed by school-children while occupied with their studies, and will prevent many of the deformities usually observed in young pupils.

Teachers should devote more attention to correcting the abnormal positions of pupils than they are in the habit of doing. It is a fact that neglect of seemingly insignificant details has been the cause of inflicting untold injury on numberless school-children. Any close observer cannot fail to notice the excessive number of boys and girls compelled to wear eye-glasses on account of defective vision caused by imperfectly lighted class rooms and the position of black-boards on the walls, at which they are compelled to gaze so much during school-hours. Many of the deformities so often seen among school-children are due to the unnatural positions which they are allowed, or perhaps compelled, to assume during school years, such, for example, as curvature of the spine, round shoulders, contracted chest, etc.—deformities which unquestionably predispose them to fatal diseases and premature decay.

The spread-eagle-like position, so commonly indulged in by the pupil when at work, without any remonstrance from the teacher, is so manifestly detrimental to the physical development of the pupil as to demand thorough reform in this important department of school work. If teachers were a little more exact in correcting these abnormal positions in the pupils, by compelling them to maintain an upright attitude while engaged in school duties, they would not only prevent many of the deformities referred to, but would also confer lasting benefits on future generations.

Class-rooms should never be separated by glass partitions or glass sliding-doors, for the reason that it has been thoroughly demonstrated that such an ancient makeshift contrivance does not improve the character of light in the rooms remote from the windows, while it diminishes the light in the room next the window in a very perceptible manner. "The glass in the partition reflects a part of the light and throws it back and out of the window." Glass also reflects light and allows part to pass through and out by the window on the opposite side, while the noise, at times unavoidable, in one class-room, becomes a nuisance to teacher and pupils in the next room, and *vice versa*.

Class-room windows should extend from, say three feet above the floor, to a point within six inches of the ceiling, so as to afford light to the students remote from them, and for the further purpose of thoroughly flushing the class-rooms at least three times a day during school-hours. These windows, however, should never be open either from bottom or top when the temperature outside of the building is more than ten degress lower than that in the class-room, on account of the marked tendency of some children to take cold. Yet when pupils and teachers alike experience that disagreeable condition of almost suffocation from hot, impure air, we must acknowledge that it is hard to resist the natural impulse which seems to prompt them to open the windows. When such conditions unfortunately occur, and fresh cold air must be had, the children should stand up and practise some rapid movements of the whole body, as required in many of our schools. Even with these athletic motions a sudden rush of cold air on the pupils has too often caused severe colds to be contracted by delicate children, and hence the necessity of vacating the class-rooms while they are being aired.

Country School-houses.—With these remarks in relation to large school-buildings in cities, we will now pass to an examination of school houses in the outlying districts or country towns where a large building is not required. It has been, and I believe is still, the custom to run up a one-story shanty, about twenty by fifty feet, anywhere, regardless of the nature of the soil, cellar, or other important details.

The interior is sometimes decorated with a vestibule, and usually one class-room, in which imaginary lines are drawn to separate the various grades into which the pupils must necessarily be divided. The ceiling of this lofty institution of learning may be anywhere from ten to twenty feet high, and the building is provided with windows on every side, including also each end, and these windows are expected to furnish light and ventilation at one and the same time.

The class-room is large enough to accommodate forty persons, but in cases of emergency more than double this number may be admitted. The building or class-room must be warmed by a huge stove, placed usually in the centre of the room, where, in cold weather, it is expected to make itself red hot, regardless of the poison it evolves. The black board is placed between windows, and the children are required to strain their eyes in looking at it during their exercises, thus inflicting injury to the eyesight which in many cases can never be repaired.

School authorities seem to regard isolated or outlying district-schools as matters of little consequence, either as to their location, construction, heating, or ventilation, and as a natural sequence, those buildings are generally badly located, imperfectly constructed, too much lighted, indifferently heated, and completely devoid of ventilation, save only that furnished through the open doors and windows.

Why is this? Why make any distinction? The children in country districts are just as much entitled to properly constructed school-houses as those in the cities. The State or Church should not permit any such distinction. Farmers are taxed for maintaining the school as well as the business man or mechanic, and are justly entitled to equal school accommodation for their children.

Do they get it? A visit to any one of those barns called district schools will answer in the negative. Instead of erecting a shanty twenty-five by fifty feet, build a two-story house, any size from thirty-five to fifty feet wide by fifty to seventy five long, as may be required, and let the two or more class rooms be separated by a corridor, as recommended elsewhere, extending the whole length of the building. The first floor will offer ample class-room, clothes'-room, etc., while the second floor can be used for a gymnasium and play-room in wet weather.

In places where the number of school-children is limited to, say thirty or forty in a district, a one-story building may suffice. In that case the school-house should extend from east to west, and be provided with a corridor on the north side of the house, the class-room windows looking to the south only. By this arrangement the black-board could be placed at the west end of the room, the pupils facing it, while the teacher's desk would be, of course, at or near the black-board, thus allowing light to enter above and to the left of the children. In case of too much sunlight through these south windows, light-colored shades may be used to moderate and equalize the same at pleasure.

Drinking-water for school-children should claim the most earnest attention of school boards. In districts where city water is not available, well or cistern water is that usually resorted to. Well-water may be, and generally is, in country districts, safe to drink; but when, as sometimes happens, the well is located within a less distance than fifty feet from a vault or cesspool, the water in such well should not be used for drinking purposes, and a vault or cesspool placed at a less distance than forty

feet from the school-house should have a ventilating pipe taken from the said vault or cesspool and conveyed to the outer wall of the school-house, and then extended to the highest point of the roof By this pipe most, if not all, of the offensive odors from those foul receptacles may be removed beyond the roof of the building, instead of being drawn into the class-rooms, either through the cold air conduit or through the windows, as frequently happens. Each of these latter school-buildings, no matter how small it may be, should have a well lighted and clean cellar in which a good hot air furnace should be located.

Gymnasium.—Every school and educational institution ought to have a well-equipped gymnasium attached to it, so as to enable the pupils to cultivate and develop the physical as well as the mental faculties. This important branch of education has been too much neglected in our public and parochial schools, and, indeed, in many private schools, academies, and colleges as well. Of late years, however, not a few in charge of these institutions are waking up to a realization of the fact that physical education must soon become an important feature in the curriculum of the institutions under their care, and have accordingly provided gymnasiums for their students. Let the good work go on until every school, high and low, male and female, public and private, shall furnish its pupils with a systematic mode of acquiring physical culture, and thus enable them to blend and harmonize in a happy manner those two divisions of education, without which there cannot be a finished, healthy termination to school-work.

But, say many of our school-managers, these gymnasiums are very expensive and we cannot afford this luxury. Do not allow the expense to deter you from establishing what is a necessity, not a luxury. Better reduce your expenses in some other direction than graduate a mental Shakespeare enclosed in a physical Pope.

Physical training, like mental cramming, can be abused by over-exertion. Excesses, of course, must be avoided. The kind of exercise and the time devoted to it must be of a character suited to the particular student, for it is evident to even a casual observer that the amount and kind of physical exercise which may with safety be indulged in by one, may prove too fatiguing to another. For example, would it not be absurd to require the same amount of physical exercise from a weak, debilitated-looking boy of, say twelve years, as that required from a healthy, robust-looking youth of the same age?

Physical exercise for school-children must be selected with great care and subject to the advice of the family physician, and under the eye of an intelligent instructor in gymnastics. Otherwise, instead of developing and strengthening the bones and muscles of the pupils, it may cause deformities of certain parts of the body, atrophy of one set of muscles and abnormal development of another. Hence the necessity for a competent instructor in every gymnasium.

In our day and time physical culture is gradually and effectually gaining in every civilized country. Intelligent people begin to see and understand that their intellectual faculties cannot attain that high degree of perfection so earnestly desired, unless they are intrenched or fortified by a sound physical frame, and that this condition cannot be achieved without physical exercise. "The body cannot become a perfectly working machine without culture, any more than the mind can become intellectually perfect without education." "Let me have a sound mind in a healthy body," says Juvenal, in his prayer to the gods. States and nations should show as much zeal for the cultivation and education of the physical as they do for the mental faculties of the people, because it is now a recognized fact that in those countries, ancient and modern, where physical culture formed an important feature in the education of the people, the highest type of the intellectual faculties was usually found.

"The poetry of Homer grew and lived on the same soil that produced Leonidas and his veterans." In ancient Greece physical culture was from the days of Homer made an important part of the school curriculum. The education of the Greek youth was divided into three parts—grammar, music, and gymnastics, to which painting or drawing was added by Aristotle. In the city of Athens gymnastic exercises occupied as much time as all the other branches or divisions combined, and were continued long after mental education terminated. There was not a Greek town without its gymnasium, and the large cities had several. History tells us that just before the time of Hippocrates gymnastics were made a part of medical study, to counteract the effects of indolence and luxurious feeding.

The wisdom which prompted the ancient Greek and Roman to introduce and perpetuate manly sports and games was abundantly manifested in the magnificent proportions of the Athenian, the Spartan, and the Roman. You cannot name a single historical person in the annals of those ancient countries that was not a trained athlete. Homer, Achilles, Patroclus, Plato, Aristotle, Socrates, Demosthenes, Hippocrates, and a host of others renowned in ancient Greek history, were skilled in gymnastic exercises, and the fame of Athens as an educational centre attracted pupils from all parts of the civilized world.

The Romans, desiring to equal if not to excel their Grecian neighbors, quickly adopted and utilized those invigorating games that contributed so much to render Greece almost invincible for so many ages, constructed the most magnificent and costly gymnasiums and bathing-houses combined, for the cultivation of the physical faculties of her people. But with the decline and fall of Greece and Rome came neglect of gymnastic exercise, loss of physical strength, and general depravity.

During the middle ages but little, if any, attention was paid to physical culture, and it was not until 1776 that any effort was made to revive the almost forgotten games and sports of ancient times, when Basedow united once more mental with physical exercise. From this small beginning the practice slowly extended, until in the latter part of the eighteenth century gymnasiums were extensively introduced into Prussian schools. In the year 1810 Jahn instituted the well-known organization called the turnverein, a body of athletes which materially enabled Prussia to expel the French from her soil more than any during the present century.

The revival of gymnastic exercises in Germany soon spread over most European countries, but not until 1848 did the contagion reach our shores, when the German exiles laid the foundation of the turnverein in New York, where it has flourished, and from which it has extended to almost every city in the United States. During the past ten years many colleges and some high schools have introduced gymnasiums; but as yet very few, if any, of the primary schools are furnished with these desirable institutions.

The kind of exercise best calculated to improve the physical condition of the average school-boy or girl is a matter which should receive special attention from the authorities. The physical exercise for the young pupil which affords the greatest amount of pleasure to the particular student is the kind that should be adopted. In recommending that exercise most pleasing to the individual do not understand or imagine that we are in favor of any athletic games having a vicious or demoralizing tendency. Not at all. The various sports and games so highly enjoyed by boys could hardly be recommended for girls. The exciting games of baseball, football, hand-ball, jumping, bicycle riding, climbing, boxing, bowling, running after a fire-engine, military drill, and such like sports and pastimes, so exciting and attractive to boys would hardly be the proper exercise for girls, unless they donned the Bloomer costume on such occasions. Even then we should still object to those violent forms of exercise for the fair sex on account of their exhausting character. Many of these games are being indulged in to excess by persons physically unable to stand the fatigue consequent upon such exercise.

Moderation in physical exercise is as necessary as in

any occupation and should be indulged in accordingly. It is much to be regretted that most of those violent and fatiguing games are being resorted to during the warmest part of the day and year when repose is so necessary. We have often been surprised at the wonderful endurance of young men who will play baseball under the burning rays of a midsummer sun when the mercury registers one hundred and thirty degrees or more in the sun.

Do not understand us as being opposed to physical exercise for girls, because we know that exercise is just as requisite for girls as for their brothers, but somewhat different in character. They have croquet, lawn tennis, dancing, walking, skating, horseback riding, running, and certain kinds of indoor exercise in the gymnasium, all of which tend to develop bone and muscle and thus enable them to resist disease and enjoy long life and happiness.

There is no exercise more pleasing to the average schoolboy or girl than a wild romp and unrestrained screaming for ten or fifteen minutes in the school-yard during recess. Such complete relaxation in the open air from the rigid rules of school discipline seems to infuse new life into the pupils, by expanding or inflating their lungs with fresh air, while at the same time the foul air of the class-room is completely expelled. This important effect cannot be obtained by the system now in vogue in most, if not all, of the common, and many parochial schools, of opening the windows for a few minutes while the pupils stand and stamp. All that can be said in favor of this new system of prancing is that it is a little better than no air or exercise at all. Why? First. If the desks and chairs are properly placed there is no room for the pupils to stand erect, and they are forced to assume a position not of ease but of discomfort and contortion, and consequently are not at liberty to move the hands and feet as they would wish to or as they could in the playground, and while in this awkward position the windows are thrown open, the cold air thus unduly cools the class-room and causes delicate children to take cold.

For the foregoing and other reasons we think that school-managers are wrong in abolishing the old time recess of fifteen minutes in the middle of each school session. No sound reason has been advanced in favor of the change except, perhaps, the coeducation of the sexes, which we suppose forbids or precludes the emptying of all the class-rooms at the same time, the object being not only to afford fresh air and exercise for the pupils, but also thoroughly to flush all the class-rooms with fresh air. Whatever cause or combination of causes worked the change, whether it was coeducation or some other absurd rule that prohibited this old and excellent method for furnishing air and exercise for the children, it is much to be regretted that the change ever took place in our schools.

Military drill has lately become an important feature in many schools and colleges, and it is demanding and receiving much attention from interested parties. While it is admitted that this kind of exercise tends to correct certain abnormal positions in the rapidly growing boy, we cannot recommend its general adoption for boys under eighteen years of age, on account of the fatigue which it inflicts on the pupil, unless very judiciously practised under the eye of a competent instructor.

In short, any long-continued exercise, having a direct tendency to fatigue, or unduly exhaust the pupil, should be avoided by the young athlete. Too violent exercise not only does not develop the muscles, but frequently retards their growth, and leaves the boy puny and delicate. "During the active growth and development of the body the bones are soft and spongy, and contain more blood, relatively, than those of the adult, and consequently are more liable to yield to violent exercise, thus causing inflammation and deformed conditions of those parts to take place." The vital organs, as well as the bones and muscles, are in process of rapid development, and are much affected by too violent exercise, and, as a result, we have enlargement of the heart, rupture of blood-vessels, and various other affections of those organs.

Bicycle riding, by causing a forward inclination of the upper portion of the body, is not recommended for the immature youth, on account of creating a decided tendency to form round shoulders and a contracted chest. I regret to express this opinion of the bicycle, more especially on account of the fact that some of the gentle sex seem determined to indulge in this masculine sport. While we are delighted to see young ladies indulge in out-door sport and games, still we cannot approve of certain kinds of those exercises before mentioned. Those occupations are, we think, too violent for the usually frail constitution of girls, and in no way tend to a vigorous development of their muscular system, but, on the contrary, they have been the primary cause of certain ills requiring the aid of the physician.

In thus restricting our girls in the choice of athletic sports and games we differ materially from our ancient Grecian friends, who required their daughters to publicly exhibit their gymnastic proficiency before contracting marriage. But as there were no bicycles for the Spartan girl to ride in those days, we cannot dogmatically say what action their fathers would have taken in the premises. Certain it is, however, that the Author of our being did not deem it necessary to endow the female portion of mankind with the same rugged bone and muscle which characterizes the male element of creation.

Overcrowding Class-rooms.—In another part of this article we stated that in the opinion of the best sanitary authorities not less than fifteen square feet of floor room should be allowed to each pupil, the ceiling being at least twelve feet high. In the higher grades some of our class rooms afford a little more than half this amount to each scholar, simply because the attendance in those grades is small as compared with the lower grades, and not on account of the sanitary demands of the children. As we descend from a higher to a lower grade we find the class rooms more and more packed, until, on reaching the lower grades of the primary department, it is not unusual to find children so packed in these imperfectly ventilated rooms as to render the air absolutely detrimental to the health of the inmates.

Picture to yourself a room twenty five by forty feet with an average attendance of eighty persons, seated on hard benches or chairs, with the feet of the smaller ones lifted off the floor, no support to the back and no desk in front of them, closely packed together and forced to inhale poisoned air for two or three hours at a time. In this class-room there are three windows and one door, the only channels through which fresh air is admitted and foul air expelled. As you enter this apartment from the open air you at once detect something wrong in the character of the atmosphere. You notice a disagreeable, sickening odor, or combination of odors, which at first prompts you to retrace your steps. You observe the children seated as before stated, some with pale, sickly expressions, others with flushed faces, all listless and restive. If you remain in this room you imagine that the disagreeable odors are no longer present, your sense of smell for this particular air is for the time completely effaced, and you soon begin to feel the evil effects of the poison that is being conveyed to your lungs, your heart, and your brain. Carbonic acid that should have been purified or removed from the room remains to be again and again inhaled, thus slowly but surely poisoning the system and destroying the vitality. Such is the general character of the air those children are compelled, by a cruel, iron-clad law, to inhale for hours in a so called school room. Children who were bright with rosy cheeks and as merry as the lambs of the field are, at the tender age of four or five years, shut up in those polluted apartments, and deprived of that which is most essential to the health and happiness of the individual, fresh air and exercise, and plenty of it.

Such school rooms serve another very objectionable purpose in a superlative degree, and that is in the spread

and propagation of such contagious diseases as scarlatina, measles, whooping-cough and diphtheria. The mode of conveying these contagious and infectious diseases through the agency of such packing is evident and may be summed up thus: A mild case of either of the diseases above named occurs at the residence of one of the children, so mild indeed that its nature is not recognized by the parents or others in the house. The little patient plays about with nearly his usual vitality, mixing with his accustomed playmates, or perhaps, as often happens, he continues to attend school for some time before the nature of his complaint is discovered, or until the disease has been communicated to other members of his class. Or the little student may be perfectly well and free from the actual disease himself, but his garments may be saturated with the fatal germs of diphtheria, contracted from a member of the family at home, or even from a neighbor's child. In this way whole schools have been exposed to the danger of infectious and contagious diseases despite the efforts of the most vigilant health authorities, and from this fertile source of contagion whole communities have been made to suffer irreparable losses.

The tyrannical law which compels children at the tender age of five years to attend such schools is as unjust as it is unconstitutional, and ought to be disregarded, because it is an unwarranted attempt to interfere with the guaranteed rights of the citizen to force him to educate or train the intellect of the child at the expense of, and to the absolute detriment of, that vastly more important element of his being, namely, physical development.

Standard authorities tell us that each pupil should have not less than fifteen square feet of floor space, or from two hundred and fifty to three hundred cubic feet of air. Now let us consider the condition in a class-room which I have visited lately and see how much air space is furnished each child. This room is fifty by thirty feet, and an average of seven feet high, and seats one hundred and fifty children. Light and ventilation are furnished by six windows and two doors, and the room is heated by direct steam radiation. In other words each scholar has the liberal supply of seventy cubic feet of air space, or about one-fifth the required amount. How, in the name of humanity, can a child learn his lessons in a room like this? Is it any wonder to find them inattentive, listless, and stupid when subject to such deleterious influences?

Observe these children at the commencement of the school term and you will notice how fresh and animated they are, with bright, sparkling eyes and rosy cheeks, full of life and vigor. But a change takes place before the end of the school year which completely alters or changes the physical condition of the pupil. The fresh, buoyant, animated condition is gone, the rosy cheeks have been replaced by a pale, dull expression of countenance; the pupil is languid and longs for the termination of his imprisonment; nervous headache, neuralgia and many other complaints torment him, and frequently the vitality is so reduced as to expose him to many contagious diseases and not infrequently to one or more of the lingering complaints that so often terminate in premature death, and thus forever close the perhaps bright prospects of the pupil of an overcrowded and imperfectly ventilated class-room.

The physical and mental outrage so perpetrated on children compelled to attend schools of this character should not be tolerated in a civilized community. It is bad enough to confine children for several hours in a room having the requisite amount of air space, but when they are packed like sardines in a box and forced to inhale over and over the poisonous exhalations from the lungs it becomes positively criminal. Why, we ask again, should such conditions be tolerated in a civilized country—a country which claims the right to educate our children in violation of constitutional law? Why should it disregard the just demands of our children? If the Government has the right to erect expensive school-buildings, and spend fabulous sums on teachers, principals, and superintendents, and foreign languages, has it not the same right to furnish room and air enough for the scholars?

If school authorities neglect to supply proper school accommodations what right have they to demand the attendance of our children? It has been truly said that "knowledge is power," but what use can a physical wreck make of the most complete education? Better allow our children to grow up in comparative ignorance than to subject them to physical ruin by shutting them up in a class room saturated with the germs of disease. Public schools, parochial schools, and even private schools, should look into this important matter before it is too late, because the time will come when education and sanitation must harmonize.

TYPHOID FEVER, ITS DE NOVO ORIGIN.

By HUBERT WORK, M.D.,

PUEBLO, COL.

A COLORADO farmer excavated a pit in which he wintered his potatoes, about two hundred sacks of which remained as refuse the following summer, exposed to the sun and rain until the latter part of July, when the irrigating canal overflowed, ran through the corral, and flooded the potato cellar. A dead cow was then turned in and the pit filled with dry earth.

On August 28th the house-wife complained of being ill, took to her bed September 2d, and subsequently developed typhoid fever of so grave a type that her life was despaired of.

September 4th, Fred, aged fourteen, was similarly attacked, and very soon gave evidence of being almost overcome by enteric fever. September 8th, a hired man took to his bed with the same disease.

Use of the well, which was located thirty feet from the potato-pit, was forbidden immediately after the nature of the first illness was determined, September 2d or 3d, and no new cases developed until September 25th; but within the seven days subsequent thereto the daughter, aged sixteen, hired man number two, two boys, aged six and nine respectively, and two young men from neighboring ranches—frequent callers upon the sick—were put to bed with typhoid fever, three of them on the same day; and twenty days later the remaining farm-hand fell ill with the same disease—none of these, however, being so prostrated from the beginning of their illness as were the two first attacked.

But two of the twelve persons known to have drunk water from this well escaped the fever—the farmer and the wife of a hired man, both of whom had suffered well-marked attacks of the disease some years previous.

Inquiry elicited the confession that water from the quarantined well had been used since September 18th, they believing that it had been purified by constant use for watering stock—some twenty head of horses and cattle—for more than two weeks.

As may readily be supposed, there was little assistance proffered by the neighbors to this family, but of those who did assist in their care none drank from the well and none contracted the fever.

Further interest attaches to these cases from the facts that the two first attacked, representing youth and middle age, developed the gravest form of the disease. Extreme tympanites, diarrhœa, persistent high temperature with slight morning remissions, somnolence, low delirium, exhausting abscesses and great emaciation—symptoms which rarely occur to such a marked degree in this disease at an altitude greater than four thousand feet, excepting that of hyperpyrexia. But one of those who contracted the disease after two weeks' use of the water for stock only, sank so low as did those first attacked, and he only after suffering a relapse, from which, however, he recovered, as did all the others.

The fever stadium varied from twenty eight days in the uncomplicated cases, to forty-two days in those who

suffered relapses, and there was no room for doubt in the diagnosis of any case.

The passages of those ill were invariably voided into a solution of chloride of lime, to be afterward buried; and the soiled linen was boiled in an antiseptic solution, so that the infection of the second series of cases by the stools of those first ill was not possible.

No typhoid fever had ever developed upon this ranch previous to this time, and no case of the disease had developed nearer than seventeen miles during the same year, previous to these. The discharges from these far distant patients could not have reached this infected ranch by either natural or artificial water-courses, should such a contingency be thought probable from so great a distance.

Sewerage of cities or towns was not discharged into the river supplying the canal nearer than sixty miles, and only five other cases developed near this canal during this year, although it supplied water to many hundreds of people. No other cases occurred in the families of the two young men who called on the sick and later were themselves attacked, although all were unprotected by previous attacks of the same disease.

It would seem reasonable to conclude that the decay of this vegetable matter, or the saturated barnyard manure, or both, had developed the specific toxic principle capable of producing typhoid fever in the unprotected, and that its access to the well was accomplished by seepage, favored by its situation and by the natural inclination of the soil strata, which is known to be from the location of the decomposing matter toward the well.

Granting these conclusions to be correct, it would appear that because those first attacked were more profoundly affected from the beginning of the disease to its termination than were those who contracted the malady after two weeks' use of the well-water had diluted the materies morbi, that the violence of the disease is in a great measure determined by the concentration of its exciting cause.

Thirty feet of sand, through which the water percolated before reaching the well, seems insufficient for the removal of the typhoid germs, and is further evidence that the earth has no power to purify water carrying this microorganism. Analysis of the water was not obtained, two attempts in that direction being frustrated by accidents in transportation.

Physicians who have sought for probable causes of enteric fever, occurring on the Colorado prairies, very soon become committed to the theory of its *de novo* origin.

Where settlers are separated by many miles, and often located long distances from running water or other known carriers of its exciting cause on the virgin prairie, it is impossible to cite as a cause pre-existing cases of the same disease. Isolated cases of this disease occurring under such circumstances are common, and from those which have come under my observation the following have been selected because of the definite knowledge of their histories.

One year after the settlement of a family upon the arid prairies, eighteen miles from water, a hemiplegic daughter, aged eighteen, contracted typhoid fever, from which she died in the fourth week. She had not left the house further than a few feet during the year previous. No one had visited the family and afterward developed the disease, nor did any other member of the family contract it. No other case of the disease had occurred nearer than fifteen miles, and not later than five months previous to her sickness.

G. G——, aged eight, contracted typhoid fever after eighteen months' residence on a newly located ranch, in every respect of similar environments with that mentioned above, except the distance from living water in this case being five miles, and the time elapsing since the patient had been from home being two months. In both families the water supply was taken from new wells, fifty feet deep.

The frequent occurrence of typhoid fever on the isolated cattle-ranches of Colorado materially strengthens the propositions from time to time advanced, that water polluted by the excreta of cattle furnishes the potent factors capable of producing and conveying its exciting cause. For many cases there are no other causes deserving of suspicion in this country, where annual autumnal droughts prevent decay of vegetable matter during the season to which typhoid fever restricts itself, and the miniature lakes of waste water and manure seen at the wells of these stock-ranches are too frequently associated with typhoid fever in the house, as to time at least, to be wholly ignored as a cause.

Although the above detailed histories do not prove anything new or old, yet to the writer, who had daily knowledge of the ranch on which the cases first described occurred, and of all those who resided thereon since it was unbroken prairie up to the outbreak of this endemic, and had ample opportunity to verify the facts in each case recited, it is evidence against the conclusions of many who have made for us investigations inquiring into the causes of enteric fever, an example of which is, to quote the language of James C. Wilson: "This microorganism, which is then the infecting principle of enteric fever, is invariably derived from a previous case."

419 Santa Fe Avenue.

IRRIGATION OF THE COLON IN INFANTS.

By J. H. HUDDLESTON, M.D.,

PHYSICIAN TO CHILDREN AT THE NEW YORK DISPENSARY AND ARTHUR BRAUNLICH.

Since the beginning of the diarrhœal season fifty children under two years of age have been treated at the New York Dispensary by irrigation of the colon and regulation of the diet without medicine. These fifty have not been picked cases, but on account of lack of time only a small proportion of those daily presenting themselves could be so treated. If a case at the second visit was found to need also stimulants, bismuth, or opium, it received that additional treatment. The majority, sixty-six per cent., were relieved by one irrigation, some were washed out twice, a few three times. A small proportion, twenty per cent., received additional treatment. One case was washed out, did not return, but died on the third day after being seen. Search has so far failed to reveal another death among those treated in this way.

Method.—The infant, bared of shoes, stockings, and diaper, is placed across the mother's lap face down, with the legs hanging by her side. Beneath the child's abdomen is a sheet of rubber cloth which is held snugly around its waist by the mother; the lower end of the cloth rests in a small tub placed beside the mother's chair. A two-quart fountain syringe filled with a salt solution of nearly normal strength (six per cent.) is hung about four feet above the baby. The water is at the temperature it flows from the faucet—*i.e.*, from 68° F. to 75° F. In the middle of the tube leading from the bag is a glass pipe which serves to show when the current is flowing freely. To the nozzle is attached a large soft rubber catheter (size No. 12). This is anointed with vaseline, passed up the baby's rectum and colon as far as it will go, and the entire contents of the bag allowed to flow through it. If the water tends to come out at the anus immediately, an attempt is made to stop this, by compressing the buttocks, and plugging the anus with a bandage rolled about the catheter. The catheter is then withdrawn, and the mother holds the baby for four or five minutes in a sitting position over the tub to let the retained water pass out. In passing the tube there is frequently some obstruction met near the upper end of the rectum, but if the tube is held there and the water allowed to flow, the obstruction usually disappears, and it is the rare exception not to be able to pass the catheter its whole length. In some few cases, however, the tube could be passed only a few inches, and would double up

and come out if pushed farther. The infant is placed on its face, as in that position its kicking interferes less with the passage of the catheter. A large receptacle for the wash water is needed, as the discharges are often shot out forcibly a considerable distance. The amount of water retained varies from a few ounces to the entire two quarts. When a quart or more is retained the child usually vomits the contents of the stomach, but in no case has it been evident that the water reached the stomach through the intestine. The water which comes away around the tube is usually clear, that which comes away later is generally stained yellow or green. Very little fecal matter is ever brought away. Some children scream all the time the catheter is held in place, others, screaming before, are quiet as soon as the water begins to flow, still others do not appear to notice the treatment.

Results.—In almost every case the subsequent effect has been quieting; the infant has often gone to sleep before leaving the dispensary and usually is asleep before reaching home. It is less thirsty for several hours, and, as a rule, is reported exceptionally quiet during the following night. If much water is retained the abdomen becomes tense, and in a few cases has felt cool to the touch. In two cases it was possible to mark out the transverse and descending colon by the sharply defined cold area felt on the abdominal wall. In two other cases there have been disturbing symptoms; in one there was apparently a chill, the child shook, became slightly cyanotic, and vomited; a few drops of aromatic spirits of ammonia and the warmth of a blanket caused the color to come back speedily; in the other, the infant became pale, felt cold, and showed a feeble pulse; the same treatment revived it promptly. In one case the mother reported that after the irrigation stools were accompanied by a prolapse of the rectum, whereas before there had been no such trouble. The effect in diminution of the number of stools depends largely on the character of the diarrhœa. In eighty per cent. there was some diminution; the few cases unaffected in this respect were bottle-fed babies in poor condition, and the illness was acute and of great severity. In cases of simple acute diarrhœa in babies in good condition a single irrigation with correction of the diet has usually been found sufficient for a cure; no case of cholera infantum has been treated by irrigation. In cases of chronic diarrhœa the number of stools was usually reduced to a half or third of the former number and the effect lasted twenty-four to thirty-six hours. If there was blood in the stools two or three irrigations were never found sufficient to cure, though benefit in the reduction of the number of stools and in the general condition of the patient was obtained in every case.

The Age of Maturity.—Statistics are said to show that young men do not, on the average, attain full physical maturity until they arrive at the age of twenty-eight years. Professor Scheiller, of Harvard, asserts, as the result of his observations, that young men do not attain to the full measure of their mental faculties before twenty-five years of age. A shrewd observer has said that "most men are boys until they are thirty, and little boys until they are twenty-five;" and this accords with the standard of manhood wh ch was fixed at thirty among the ancient Hebrews and other races.

A Medico-legal Institute.—It is proposed to establish a medico legal institute in Paris. The building will be in immediate communication with the morgue by means of an underground passage (said to be a transformed sewer; but that is a detail), in which there is a tramway for the transport of bodies. The institute will comprise a toxicological laboratory, a work room, a lecture-room, a library, a museum, a post-mortem room with a small waiting room for relatives, and a room in which suspected persons can be confronted with their supposed victims.

Progress of Medical Science.

A Special Form of Phlegmon of the Neck.—Drs. Brousses and Brault describe a space of prismatic form, situated below the back part of the tongue and bounded in front by the hyoglossal and thyrohyoid membranes, and behind by the anterior surface of the lower and attached portion of the epiglottis (*British Medical Journal*). The upper boundary is formed by two membranous layers, one consisting of the lingual mucous membrane; the other and deeper layer of fibrous tissue. This cavity, it is stated, is divided into two lateral halves by a membranous septum, which seems to be an extension downward of the median glosso-epiglottidean ligament. This enclosed and divided space, which is called by the authors the glosso-thyro-epiglottidean cavity, may, it is stated, become inflamed, and thus give rise to diffused phlegmon of the neck. Phlegmon, when developed in this cavity, presents in its early stages a special set of symptoms, which may enable the surgeon to form a precise diagnosis. These characteristic symptoms, which in the course of the affection become associated with intense dysphagia, dyspnœa, and aphonia, are: 1, Spinal localization of the swelling and tenderness in the portion of the neck between the suprahyoid and infrahyoid regions; 2, a "woody" consistence of the swelling, due to the fact that it is closely and deeply limited by membranous walls capable of withstanding tension; 3, slight infiltration in the glosso-epiglottidean region, while the surgeon is unable to feel any elevation there, or any collection of effusion in process of formation; 4, absolute integrity of the root of the tongue, and of the pharynx. This form of phlegmon is a serious one, as asphyxia is threatened in an early stage of the affection, and septic poisoning at a later period. The treatment should consist, when the inflammation is still limited to the cavity, in thyrohyoid laryngotomy, and afterward, when the swelling has spread above the hyoid bone, and can hardly be distinguished from that of deep-seated phlegmon in this region, in a median incision carried between the geniohyoid muscles to the base of the tongue.

The Significance of Vaginal Discharges.—A leucorrhœa inodorous or of mild odor persisting during the climacteric, accompanied by increasing hemorrhage, is suspicious and demands investigation. A leucorrhœa profuse, of peculiarly fetid odor, grumous, excoriating, appearing early or late during the climacteric, with profuse hemorrhage, is reasonable evidence of cancer of the cervix. A leucorrhœa moderate in amount, ill-smelling (the peculiarly fetid odor of cancer of the cervix being absent), accompanied by hemorrhage, suggests cancer of the corpus uteri. A leucorrhœal discharge with hemorrhage containing material like the washings of meat is said to indicate sarcoma. A watery discharge, as a rule, occurring during menstruation, odorless, or of little odor, persisting, accompanied by profuse hemorrhage, indicates fibroids; with little or no hemorrhage, polypi. Profuse bloody discharges coming on gradually with declining menstruation, ceasing usually with the menstrual flow, point to fibroids. Persistent profuse discharges of blood occurring spontaneously, arising from sudden exercise or coition, occurring, as a rule, after the menopause, indicate cancer. A gradually increasing amount of menstrual flow is suspicious and needs investigating. Post-climacteric hemorrhages in a fibroma of the uterus of long standing form one of the principal grounds for the suspicion of sarcoma (Borner). The early recognition of malignant disease is demanded, and possible prevention of the fatal exhaustion which accompanies it by the administration of drugs, and the application of those methods which, in a measure, may be supposed to offset the terrific drain on the nervous system; inasmuch as present experience shows that early removal of diseased tissue prolongs life, the importance of early diagnosis and treatment can hardly be over-estimated.—*New England Medical Gazette.*

MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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THE PAN-AMERICAN MEDICAL CONGRESS.

THE meeting of this body, held at Washington during the past week, has, on the whole, been a success. The attendance has been gratifyingly large, nearly nine hundred delegates having registered by the morning of the first day. Of the seventy-two foreign delegates officially appointed, one half have been present, representing sixteen different countries. The extensive knowledge which many of them possess of the English tongue has been a gratifying surprise. They have all responded in a tone of lofty appreciation of the work of the Congress, and have made a most favorable impression upon their North American confrères.

One fault, not to seem ungracious, has been the multiplicity of the sections. In several instances several have been obliged to combine, owing to the slim attendance upon each singly. The American idea that "bigness is greatness" unfortunately too often creeps into our National scientific bodies. If the work of the Congress could have been condensed into half a dozen sections the results would have been, we believe, more satisfactory and more permanent.

The recommendations of the various sections looking toward the unifying of the medical interests of the two Americas are given in our accounts of the various sessions. They are well worthy of careful attention at the hands of the profession and the officials of our Government.

Undoubtedly the Congress, through its delegates, will do much to further all legitimate measures leading to closer affiliation between the countries represented.

Perhaps the most important point of domestic interest is the proposed enlargement of the American Medical Association, so as to have it assume a Pan-American character. This idea was a novel one to the Congress, but it seemed to meet with a cordial reception, and out of it conditions may arise of importance to the entire medical profession of the Western hemisphere.

To the local committee at Washington too much praise cannot be given. They have even surpassed their previous creditable record in this respect. While many of the officers of the Congress have spent the heated term by mountain and shore, the committee has remained at home and furthered every detail in arranging for a satisfactory meeting. Its success has been without a flaw.

As is usual in all gatherings fathered by the American Medical Association, the New York City representation has been conspicuous by its absence. There has been a fair attendance on the part of the younger men, but the older men have scarcely been represented at all. The reasons for this state of affairs are too well known to require mention here. Is it not time that a different order of things should be brought about?

The social features of the Congress have been gratifying from every point of view, and we are sure that all have left Washington feeling that the Pan-American assemblage has justified its organization.

THE MYSTERY OF CHRONIC CONTRACTED KIDNEY.

ONE death in every twenty is due to kidney disease. In adults the proportion is much higher. The interest in the kidney and its workings is, therefore, very great, not only in the profession but the laity. The liver kills its hundreds, the stomach its thousands, the kidneys their tens of thousands. Leaving out of consideration the mortality from intestinal diseases among children, one finds that the organ of least resistance is the lung. Lesions of this imperfect viscus are the cause of over one-fourth human mortality. The nervous system gives out next. Following this come the heart and kidneys, which are about equally active as agents in mortality. These facts suggest a possibility that people, including physicians, who are careful about their health think too much of their stomachs, their livers, and their constipation, and too little of the way in which the kidneys are behaving.

This is the teaching of a lecture on "The Mystery of Chronic Contracted Kidney, and the Secret of its Prevention," delivered by Dr. H. C. Wood, and published in the *University Medical Magazine*. We trust that the author is not altogether responsible for the title, which is somewhat expansive for a scientific publication, for we do not find that he has removed any new veil enshrouding the Isis of renal pathology and therapeutics. Dr. Wood, however, does show happily and impressively the fact that contracted kidneys often develop insidiously, perhaps by jumps and starts, and in unexpected ways; also that the causes may be poisons engendered within from over-feeding, mal-assimilation, indigestion, etc., as well as from exposure to the ordinary extrinsic poisons, such as alcohol and lead. One should watch the kidneys, looking out for temporary albuminuria, hyaline casts, and low specific gravity. The writer gives this impressive illustration:

"Some years since, one of the most graceful lecturers who ever adorned a chair in the Medical Department of the University of Pennsylvania had occasion in the lecture-room to use in a control experiment normal urine, and selecting his own for the purpose unexpectedly found that he was the subject of chronic Bright's disease. He had supposed himself in perfect health, but not very many months later died of uræmia. Such an occurrence as this," Dr. Wood adds, "parallels what happens not very rarely in the daily routine of medical practice. Every practitioner who sees much of chronic diseases must, time and again, meet with cases in which contracted kidney is not detected until the later stages of the disorder are reached."

As for the secret of the prevention we find that Turk-

ish baths, habitual bathing, exercise, and moderation in eating are recommended. And no one can take exception to such advice.

DANCING AND GYMNASTICS.

Instructors and students of the physical education of women were quick to see that the various forms of "skirt dancing" which have so taken public fancy had value as gymnastic exercises. Certain modest modifications of this style of rhythmic motion have been introduced into the gymnasiums, and with excellent results. Young people soon get tired of the inanities of wands, wooden dumbbells, and of mechanical movements to the strumming of an asthmatic piano. The more there is of a dance movement to calisthenics, therefore, the better the exercise is liked and the more useful it becomes. The dancing academy could be made the best of gymnasiums, if it were ever properly ventilated and the pupils were properly dressed and under intelligent control. As this is impossible, the most feasible thing now will be to inoculate our gymnasiums for girls and women with more of the dance movements. Our youth would not only gain strength, agility, gracefulness, and health, but would learn to distinguish what is beautiful in dancing movements from that which is coarse and vulgar.

Miss Kate Field, who is observant and sincere, has taken some such position as this in her *Washington,* and pays particular attention to the value of the movements of the trunk as illustrated in the Spanish and Egyptian dances. "The mid-Orient," she says, "confines dancing to abdominal gyrations, marvellous as gymnastics and absolutely impossible to women who have ever worn corsets. Such development and control of abdominal muscles as are exhibited by the dancing-girls in Chicago-Cairo would, if possessed by American women, be the salvation of the race. Invalidism would be impossible, and children would be born healthy. Other than as gymnastics the *danse du ventre* has no interest whatever. It has neither grace nor beauty, the dancers are not attractive, and their persisting in wearing French heels denotes incapacity on their part to appreciate the eternal fitness of things. Vulgar men and women who have set up a howl against this performance would do well to look around the American ball-room and dinner-table and discover like food for prurient fancy."

THE AUTUMNAL TYPHOID.

It will be contrary to former experience if the present autumn does not bring with it the usual increase in the number of typhoid-fever cases. This condition of things is so uniformly associated with the return of our summer tourists, that we cannot escape the conviction that they bear a direct relation to each other. In fact it would seem strange that the case should be otherwise, considering the dangers from bad drinking-water to which the ordinary summer boarder is exposed, even in what are styled first-class rural hotels. This latter danger has been especially emphasized by the existence of a prolonged drought, in which the wells and springs have suffered from lack of suitable supply, besides being the ever-ready absorbers of foul soil drainage, and the natural carriers of the numerous and deadly pathogenic fever-germs.

The farm-house boarder, however, is the one most to be commiserated on the dangers which he must have necessarily faced in his yearning for the quiet and repose of strictly pastoral surroundings. The simple fare of milk, eggs, and fresh garden sauce may tend to give recreation to the overtaxed metropolitan stomach, and the moss-covered bucket may suggest the poetical sufficiency of satisfied thirst; but these will hardly offset the baleful proximity of the embowered out-house at the end of the short board walk, or its odoriferous suggestiveness in his raftered garret dormitory. And yet this is the rule in so-called country boarding-places, which are so freely advertised, and, alas! so readily patronized by the great majority of those who go for health and recreation. Numerous summer resorts in this and other States have had typhoid fever constantly in their vicinity, and have been sowing the seed for the autumnal city harvest with a surety that will without doubt be manifest as the season progresses. We trust that we shall be agreeably disappointed, but we must wait and see.

THE SUN IN SURGERY.

Dr. D. V. Thayer, of San Francisco, after trying heated needles, endermic needles, croton-oil, Baumgartism, and caustics, has come to the conclusion that the solar rays are the most efficient of all surgical methods in the treatment of "capillary aneurisms, varicose veins, indolent, chancroidal, and rodent ulcers; epithelial cancers; birth, India-ink, and powder marks; bleeding vessels and surfaces, hemorrhoidal and erectile tumors, morbid growths, such as warts, moles, small wens, and all diseases of the skin of a parasitic nature."

This is claiming a good deal for the sun, which though a large and important body has not heretofore made any pretences to surgical pre-eminence. Dr. Thayer admits that he is not the first to discover the surgery and dermatology of the sun. Some years ago a London surgeon, by using the sun's rays, succeeded in removing a wine-mark from the face of a lady, and also succeeded in destroying a malignant growth with the same remedy. The wound healed readily, and up to the time the article was published there had been no symptoms of the disease returning.

Dr. Thayer does not seem to know of the improved methods of using the sun devised by Count Mattei. That ingenious old gentleman bottled up the solar rays and sold them in solution, to be taken internally *ter in die*. However, the San Francisco physician seems just as confident of his more open procedure. He says (*Pacific Medical Journal*): "During a practice of more than a quarter of a century I have found no caustic or cautery to compare with solar heat in its beneficial results. Unlike other caustics, it can be applied with perfect safety upon the most delicate tissues and is at all times under the control of the operator. It has other advantages—the system receives this treatment kindly. The irritation and inflammation following its application are surprisingly slight and of short duration. Another point in its favor, the pain subsides immediately upon the removal of the lens. I have burned the skin of nearly the whole of one side of the face at one sitting, destroying the cuticle; within five minutes the burned surface

would be free of pain. There is a curative power in the chemical rays of the sun, yet unexplained. I avoid blistering, carrying the burning beyond this point, carbonizing the tissue."

Dr. Thayer tells us of his wonderful results, but does not describe his technique. Hence we grow somewhat suspicious, and are less surprised to hear his admission that he has been called a quack.

We find nothing of quackery in his article, but it is difficult to understand how thermic rays from the sun have a different therapeutic effect from those of an electric cautery.

The specialty of using the sun in surgery will, at any rate, be confined to the Pacific coast, where the sun shines every day in the year for nothing.

THE CHOLERA PROSPECTS.

It was at this season last year that the public was startled by the threatened invasion of our port by cholera. So far, however, we are safe. Our quarantine has been efficient and no case has appeared in this city. The prospects are exceedingly good that we shall escape altogether. The promptness with which our health authorities follow the clew of suspicious cases, and the radical manner of isolation, give the best possible guarantee that public confidence in the efficiency of our sanitary regulations will be fully and satisfactorily maintained. Considering, however, the continued prevalence of the disease in nearly every country of Europe, its ravages in Russia, Egypt, and Arabia, there is every reason for the exercise of the utmost vigilance on the part of the authorities. The sporadic case in Jersey City was an ominous warning as regards possibilities, which, but for the watchful interest of Health Commissioner Edson and his prompt rendering of assistance, might have remained unheeded and have resulted in a more or less wide-spread dissemination of the disease.

The earnest desire of the Health Officer of the Port to co-operate with the National Quarantine authorities tends in the right direction to steady public confidence and to make efficient the present quarantine laws. The ports to be feared at present are Antwerp, Rotterdam, and Marseilles, and these are most effectually under control, not only by our quarantine officers at home but by our consular quarantine abroad. Again, the sanitary authorities of all the countries of Europe and Asia are so thoroughly alive to the necessities of the situation that the extension of the plague will be intelligently combated as it never has been before.

Objections to a Laboratory.—The Japanese government has established a laboratory for the study of infectious diseases in Tokio, to be under the direction of Dr. S. Kitazato. The inhabitants of the ward in which it is intended to build the laboratory are, however, greatly opposed to it, as they fear that it will injure their business and cause a depreciation in the value of real estate in the neighborhood. They have united in an appeal to the government to change the site for the proposed establishment and place it somewhere in the outskirts of the city.

News of the Week.

A Somnambulist.—A man, eighty-eight years old, recently walked off a train going at the speed of fifty miles an hour, near Plainfield, N. J. He was asleep at the time, and though rolled over several times and somewhat bruised, he was apparently not seriously injured when picked up.

The Diagnosis of Diphtheria.—Dr. H. M. Biggs has submitted a report to the Board of Health of this city concerning the bacteriological examinations made in suspected cases of diphtheria. The examinations were begun early in May. Arrangements were made with a number of druggists in this city to keep on hand a supply of culture tubes furnished by the department. These tubes are furnished without charge to physicians who desire to make inoculations themselves in suspected cases. After inoculation the tubes are returned to the station from which they were obtained and are collected by the department collector. A report of the examination is forwarded the following morning to the physician. Department inspectors will make the inoculation when physicians request it. Of the 431 cases thus far examined about one-third proved to be false diphtheria. Dr. Biggs says in his report: "These investigations have shown that a considerable proportion of the pseudo-membranous and exudative inflammations of the throat and upper air-passages, commonly considered as diphtheria, and having the anatomical appearances found in diphtheria, are not true diphtheria, but are of a far less serious nature. These latter cases may be called false diphtheria. In true diphtheria the mortality is very high, and the danger of transmission to others is great; in false diphtheria the mortality is very low, and the danger of infection slight. The differentiation between true and false diphtheria, though often difficult or impossible without the aid of a bacteriological examination, can in this way be made within a few hours. Cases which prove to be false diphtheria will not receive further detailed attention from the Health Department. Cases, on the other hand, which prove to be true diphtheria will be subjected to the usual rules and regulations covering contagious diseases."

Contagion from Kissing.—A telegram from Jamestown, N. Y., says that at a wedding in a village near that place a number of friends kissed the bride, who was suffering from slight sore throat at the time. Since the wedding the case has been found to be one of diphtheria, and a large number of those who embraced the bride when offering their congratulations have been attacked by the disease. No deaths have yet occurred, but many of the cases are said to be very serious.

Five New Cases of Small-Pox have appeared in this city during the past week.

The American Social Science Association.—In the Education Department of the American Social Science Association, which had its day at Saratoga on September 5, 1893, Mr. Hamilton W. Mabie, editor of the *Outlook*, made the opening address. This was followed by papers on "The Seamy Side of the Kindergarten," by Edward Fisher, of Berkshire, Mass.; "American Colleges and their Work," by Dr. G. Stanley Hall; "The Education of Epileptics," by Dr. Louise

Fiske Bryson, and "Turkey and Civilization," by the Hon. Oscar Strauss. In the Health Department, September 6th, Dr. Frederick Peterson delivered an address on "Recent Progress in Medicine and Surgery."

New Quarantine Regulations.—The Treasury Department has just issued a new order, based upon the act of February 15th last, which grants additional powers to the Marine Hospital Service. The first article of the regulations provides for the inspection of all vessels from domestic ports where yellow fever, cholera, typhus fever, or small-pox is prevailing. The new regulation authorizes the Supervising Surgeon-General, from time to time, personally or through a duly detailed officer, to inspect the maritime quarantines of the United States, State and local, as well as national, for the purpose of ascertaining whether the quarantine regulations prescribed by the Treasury Department have been or are being complied with. These officers are authorized to board any incoming vessel, or any vessel detained at Quarantine, and to examine all portions of the Quarantine establishment for this purpose, with a view to certify, if need be, that the regulations are being enforced.

Superintendent Kimball, of the Life-Saving Service, issued an important circular letter, September 4th, to all keepers of life-saving stations on the Atlantic seaboard, and especially to those in and about New York. The circular instructs the officials of the Life-Saving Service to co-operate with the officers of the Marine Hospital Service in preserving a strict quarantine on infected ships. To this end the surfmen are instructed to keep a close lookout for all matter, such as bedding, clothes, vegetable matter, etc., which may wash ashore. This matter they are directed to handle with rakes only, to dry and burn it. They are also instructed to see that no persons who may escape from ships detained at Quarantine are permitted to land. In a general way the Life-Saving Service will assist all in its power to maintain rigid quarantine when it is established, so as to lessen the chances of infection to this country through the means of diseased household articles.

Improvement of Naval Hospital.—Surgeon-General Tryon of the Navy has at his disposal $90,000, as a part of the share of his bureau for the sale of land in the Brooklyn Navy-Yard two years ago, which he proposes, with the Secretary's consent, to expend in improving the Naval Hospital, and with the addition of an appropriation Congress will be asked to make, to add two sick wards to the present structure, to modernize the service and put it on a footing with other large hospitals of the country. The present hospital was built fifty years ago, and is entirely inadequate for the demands of the service. It is the largest in the navy, but is still behind the advances made in other hospitals for caring for the sick in large numbers.

An Active Industry.—The demand for skulls and skeletons is said to be always in excess of supply, particularly at this time of year. It may interest our readers to know what are the current prices in the American market.

Half skeleton, disarticulated, in box, consisting of the skull, the spinal column, twelve ribs, pelvis, one arm, and one leg. The bones of the spine, hand, and foot are held together by catgut	$21 00
Articulated skeletons to suspend, male or female	$30 00 to 40 00
Articulated skeletons with stand	35 00 to 40 00
Fœtal skeletons, ass. ages, on stand under glass, each	10 00
Disarticulated skulls, in box, with compartments for each bone	$12 00 to 15 00
Entire skulls, plain	6 00
Entire skulls, one cut horizontal	7 00
Entire skulls, two cuts, one horizontal, the other vertical	9 00
Entire skulls, five cuts, showing nasal cavity and sinus	15 00
Entire skulls, seven cuts, showing the ear complete on one side	20 00
Skulls, disarticulated, and all the bones united with polished metal strips according to Beauchene's method. By turning a screw the front part moves forward and the back part backward; the lower jaw can be removed. Each bone can readily be studied separately, including those of the ear. Price, under glass	40 00
Internal ear, semicircular canals, cochlea, etc., on stand	6 00
Fœtal skull	2 50
Hands and feet, articulated with catgut	2 50
Pelvis, female, with ligaments	10 00
Pelvis, female, without ligaments	7 00

Obituary.

JOHN WILLIAM BRANHAM, M.D.,

ASSISTANT SURGEON MARINE HOSPITAL SERVICE.

Assistant-Surgeon John W. Branham died of yellow fever at Brunswick, Ga., August 20th. He was taken ill about August 10th, while in the performance of quarantine duty at Brunswick, and died on the afternoon of the 20th.

Assistant Surgeon Branham was born in Walker County, Ga., October 27, 1868, and his early education was derived from the schools of his native State. When he was thirteen years of age he moved to Baltimore, Md., and received a general education at the Baltimore City College. He then studied medicine at the College of Physicians and Surgeons, Baltimore, and graduated at the head of his class from that institution, March 13, 1889. During this time his elder brother, Dr. J. H. Branham, of Baltimore, was his preceptor. After graduation he first served as resident physician at the City Hospital in Baltimore during part of 1889 and 1890, and afterward was assistant quarantine physician for the port of Baltimore from May until November, 1891. Leaving Baltimore he moved to Kempsville, Va., where he practised medicine until entering the medical corps of the Marine Hospital Service. At the examination of candidates held in Washington, D. C., in March, 1893, Dr. Branham passed first among twenty-two applicants, and was commissioned Assistant Surgeon, April 19, 1893, and on April 21st was ordered to the Marine Hospital, Stapleton, Staten Island. On July 25th Assistant-Surgeon Branham was ordered to Brunswick, Ga., to take charge of the quarantine at that port, where he remained in the active discharge of that duty until he was stricken down with yellow fever.

Surgeon-General Wyman pays the following fitting tribute: "As an officer Assistant Surgeon Branham was held in high esteem, both by those under whom he served and by the Department. His ability was fully recognized, and he was chosen for the important duty of reorganizing the quarantine of Brunswick and establishing it upon a firm sanitary basis, the local quarantine at that point having proved to be insufficient. Through his death the Service has lost an able officer.

"Personally Assistant-Surgeon Branham was a man whose general education and medical attainments won for him the highest respect, and his social relations with his brother officers and others were characterized by a manliness of deportment and gentlemanly bearing that won the affection of all."

Society Reports.

Pan-American Medical Congress.

First Meeting, Held at Washington, D.C., September 5, 6, 7, and 8, 1893.

(Special Report to the MEDICAL RECORD.)

FIRST DAY, TUESDAY, SEPTEMBER 5TH.

THE meeting was called to order promptly at ten o'clock by the President of the Congress, Professor William Pepper, M.D , LL.D., of Philadelphia. Prayer was offered by the Right Rev. William Paret, D.D., Bishop of the Episcopal diocese of Maryland.

Address by President Cleveland.—The Congress was formally opened by Honorable GROVER CLEVELAND, President of the United States, who said : " Few words are necessary from me on the present occasion. I am only glad of an opportunity to say how pleased I am to be in any way related to such an Association as this, assembled for the furtherance of the highest and noblest aims which can actuate mankind—the protection of the public health and the prevention of contagious and epidemic disease. Where more properly can such questions be discussed than at the capital, of a nation which appreciates all which pertains to the commercial relations and easy intercourse between the different nations of the Western world? Where can the question of the alleviation of human suffering be more fittingly considered than at the capital of a nation whose highest aim is the welfare of the individual? It only remains for me to declare the Pan-American Congress open for the transaction of the business which has called it together."

Address of Welcome.—An address of welcome was delivered on behalf of the District of Columbia by Honorable JOHN W. ROSS, LL.D., President of the Board of Commissioners, D C. He said that for the first time there were here gathered together representatives of the medical profession from all the countries of the two Americas. Particularly fitting was it that such a meeting should be held in a district named after the great discoverer, and in a year when the nations of the earth were doing honor to his memory. The spirit of the age demanded much of the physician, and its members were here assembled not for individual aggrandizement, but for the loftier purpose of extending the sphere of medical knowledge and for the prevention of human suffering. From a consideration of the regional characteristics, the climatic conditions, and the general environment of mankind in the countries here represented, there could be an interchange of experience and observation never before possible. He urged that plans be formulated to establish international quarantine and to check the progress of contagious diseases.

Furthermore, all municipal authorities faced a serious problem in the matter of location of pest-houses for such maladies. Such buildings must be near enough to avoid long transportation of the sick, and yet must be within proper reach of a sewerage system and an uncontaminated water-supply. Experience had shown that there was in every community a dread of such institutions amounting almost to a panic. If it be correct that such hospitals, when properly erected and managed, are not a menace to the community, it was the privilege and the duty of this Congress to relieve the public mind of its apprehension, and an authoritative assertion to such an end would do more good than could be done in any other way.

Moreover, the result of the deliberations of the Congress would be not only the formation and renewal of friendship, but would show to the world that beneficence and philanthropy were not measured by national boundaries, but were as long and broad as humanity itself.

He expressed the hope that the present was but the forerunner of many similar gatherings, so that the common interests of all the Americas might be best subserved. The District of Columbia felt honored at being selected as the place of meeting, and on behalf of its citizens he extended to all the delegates a cordial welcome.

PRESIDENT WILLIAM PEPPER made a few general remarks defining the general scope of the Congress. He stated that the official invitation extended by our Government had been in every instance accepted, and that the official delegates were on hand. He called attention to the large conception in the public mind of the importance of the work of the present meeting. We were on the brink of a larger conception of what America really is, with a destiny and international relations which necessitate united action. He expressed the hope that the Pan-American Congress and the American Medical Association might eventually become welded into one compact body.

A response was made on behalf of the British West Indies by DR. JAMES W. PHILLIPPO, of Jamaica, who said that his island home, while from the British point of view the key to the Gulf of Mexico, was also an outpost of the United States, and pledged himself to do all in his power to further the mutual hygienic interests of the two localities. He hoped for a closer relation between the Hydrographic Bureau in the United States and that of Jamaica, so that the former could be forewarned of the approach of violent storms.

A few remarks were made by Hon. J. B. MCCRARY, of Kentucky, who introduced in the House of Representatives the original bill which led to the establishment of the Congress.

DR. MONTIZAMBERT, of the Grosse Island quarantine station in the St. Lawrence River, responded for British North America, alluding to the conferences which had been held between Canada and the United States through the medium of the American Public Health Association, and to the value of having, as was now the case, health representatives of each country at the ports of the other.

A response was made on behalf of Costa Rica by DR. CALORA, who hoped that the protecting wings of the American eagle would be spread over the smallest of the Western republics.

DR. JAMES W. HIBBERD, of Indiana, President of the American Medical Association, said that the latter was the parent of this and all similar organizations in this country, and had encouraged their organization. Speaking for the body over which he had the honor to preside, he re echoed the wish that the closest relations might exist between it and the present Congress.

The report of the Secretary General was made by DR. CHARLES O. L. REED, of Cincinnati, who said that the present condition of the Congress and its official handbook must constitute his report. He stated that much credit was due to Hon. John Sherman, who had managed in the United States Senate the passage of the bill which led up to the present gathering. The meeting was in reality a governmental protégé, while embracing through its delegates a constituency of over one hundred and fifty thousand physicians.

DR. S. S. ADAMS, of Washington, Chairman of the Local Committee, made a report in which he stated that Senator Gorman, of Maryland, was largely instrumental in the passage of the bill securing the necessary appropriation for expenses.

The Flora of America in its Relations to Medicine.—The formal address of the session was made by PROFESSOR FRANCISCO A. RESQUEZ, of Caracas, Venezuela, on this subject. The inorganic kingdom he said has yielded to the organic in therapeutic importance. The tendency of modern medicine is to employ, not internal remedies which act mechanically, but rather those which are represented in the structure of living tissue. Only those metals should be retained in medicine which have their representatives in the living body. The living elements of organized tissues require organic remedies.

The speaker gave an interesting catalogue of the different vegetable remedies in common use which grow in the various South and Central American countries represented

in the Congress. Quite a number of them, some credited with remarkable properties, were unfamiliar to his auditors. He expressed the hope that a society might be formed for the study of the American flora in its relation to medicine, having its home in this country and branches in the various Southern republics.

SECOND DAY, WEDNESDAY, SEPTEMBER 6TH.

The general session was opened at 9.15 A.M., with prayer by REV. P. J. GARRIGAN, D.D., Vice-Rector of the Catholic University of America.

Brief addresses were made by DR. VICTOR LUIS JILLES (in French), representing Hayti; DR. GREGORIO MENDIZABAL (in Spanish), of Orizaba, Mexico, on behalf of that country; DR. MANUEL A. MUÑEZ (Spanish), representing Peru, and DR. PEDRO LA GLASA, of Buenos Ayres, representing the Argentine Republic. The latter gentleman was obliged to travel thirty days in order to be present.

Gangrene — Its Pathology, Symptomatology, and Treatment.—This was the title of the formal address of the session, and the paper was read in English by PROFESSOR RAFAEL LAVISTA, M.D., of the City of Mexico. Gangrene, he said, could be divided into two varieties, septic and aseptic. He confined his attention to a consideration of the form occurring spontaneously. He traced the gradual development of the train of pathological sequences, starting with the first impairment of the endothelium lining the vessel, and ending with its partial or complete occlusion. Allusion was made to the various modifications of the process which the peculiar anatomical relations of each part might determine.

A careful analysis of the symptoms and signs of the disease was given, and the general methods of the treatment by modern surgical procedures were outlined.

THE PRESIDENT stated that in view of the importance of continuing the inter-continental work so auspiciously begun, it was advisable that the International Committee of the Congress should be empowered and requested to secure proper governmental recognition, 1st, for the necessity of preventive medical measures; 2d, for the necessity of a uniform American Pharmacopœia; and 3d, for the elevation of the standard of medical education.

A motion to this effect was introduced and carried.

A resolution was introduced by DR. J. D. BROWN, of Texas, relative to the matter of urging upon certain governments the importance of sanitary work. Especial stress was laid upon the matter of Dr. Ernest Hart's recommendations relative to sanitation in India, the home of cholera. By the rules of the Congress this resolution was referred to the International Committee, as was also one adopted by the Section on Hygiene, Climatology, and Demography, relative to the importance of a cabinet health officer in each country. According to the terms of the resolution such an office should be national in character. Its incumbent should have a parity of voice and vote in the national councils. He should exercise an independent executive authority comparable to that of other cabinet officers, and finally should be an educated and experienced medical man.

The Chairman of the Local Committee of Arrangements for the meeting of the American Medical Association at San Francisco, in June, 1894, was introduced, and outlined the work already accomplished. He promised abundant hospitality, a good attendance, and a successful gathering.

EVENING SESSION.

The session was devoted to the President's Address, by DR. WILLIAM PEPPER, of Philadelphia, which in substance was as follows:

A Fitting Year for the Congress.—In view of the history of the organization of this Congress you will not, then, think it strange that, called upon to address such an assemblage in this Columbian year, it should seem less fitting to dwell upon any technical topic than to turn our thoughts to the state of this continent and of its aboriginal inhabitants at the time of its discovery by Columbus, and to the obstacles which opposed him and the great men who completed his work. For these have had a bearing on the racial developments which have since occurred here, and should be held in mind in any estimate of the progress we have made during the subsequent four centuries.

Its High Aim.—This Congress represents much more, however, than our common interest in medical science and the common feeling of brotherhood which animates the entire profession. It is, indeed, it always has been, and forever may it so continue, the glory of the medical profession that their allegiance is one and undivided, for their service is solely in the cause of truth and humanity. Dynasties have risen and crumbled, the map of the world has been changed times almost without number, but the march of medical science through the ages has been ever onward and upward toward those lofty goals —the prevention of disease, the relief of suffering, the improvement of the race.

Common Racial Peculiarities.—The aborigines who were living on this continent at the time of its discovery by Columbus presented, it is true, considerable differences in the stage of development they had reached, as well as in their language and even in their appearance. There are long intervals of social development evident beyond the squalid sty of the California savage and the great structures of Zuñi. Yet in all of them can be demonstrated an underlying principle of adaptation to a certain mode of communal life, such as all American aborigines are believed to have practised. The various tribes had their distinguishing characteristics, but all possessed the cinnamon colored or copper colored complexion; the high cheek-bones, and small, deep-set eyes; the straight, black hair, with scanty or absent beard.

There seems to be but little doubt that had America not yet been discovered there would have been going on here, for the last four hundred years, a slow and irregular approach to a higher social condition.

Franklin's Foresight.—Benjamin Franklin was one of the first to foresee the close reciprocal relations which would inevitably arise between the countries of the two Americas, and in 1749 he embodied in his plan for the organization of the University of Pennsylvania an earnest advocacy of the thorough teaching of the Spanish and Portuguese tongues.

The more closely the period of the Middle Ages is studied the more do we appreciate the magnitude and the necessity of the changes effected during those centuries in preparation for the splendid activities of the Renaissance. The mission of the Middle Ages had been really, though not obviously, a cosmopolitan one, and it was fitting that the noblest achievement of the Renaissance should be the discovery of America.

The Discovery of America and Medical Science.—In no respect may the discovery of America be regarded as the dividing-line between the Middle Ages and the Modern Era more truly than in regard to medical science. In spite of the prodigious learning of the most distinguished Arabian and Jewish physicians their medical science was far too largely speculative and philosophic. Great universities were established, some of which possessed regal revenues and magnificent libraries. Numerous hospitals were founded, of which the large and wealthy one established at Cairo in 1283 merits special mention. But the outcome of this long dominion of the Arabs and the Moors, so far as concerns medical science, was merely a marked advance in chemistry and pharmacy, the introduction of many new remedies, and the advocacy of the union of the natural sciences with medicine. Their chemistry was tinctured strongly with alchemy, their clinical teaching was elementary, their diagnosis and treatment lacked the true Hippocratic force and directness.

The history of European medicine for more than three

hundred years is a record of which we may well be proud when the enormous obstacles to progress are held in view. It is not necessary to remind this audience of a single one of its great triumphs. But it is sad to reflect upon what has been done as contrasted with what might have been.

Achievements of American Medicine.—In 1765 the University of Pennsylvania established the first medical school in the United States.

I cannot detain you by an enumeration of the services already rendered by America to medical science. Almost immediately after the Discovery important contributions to pharmacology were announced, chiefly from South America, and from the introduction of guaiacum, in 1508 until now these contributions have become more and more frequent. The entire medical world was agitated during the latter half of the seventeenth century by the struggle over the merits of cinchona bark. Among the results which may be anticipated from this meeting is, I trust, the adoption of some well-considered plan for systematic conjoint study of our American remedies and their pharmaceutical preparations, looking to their scientific classification, to greater uniformity in their preparation, and ultimately to a single Pharmacopœia for the entire continent.

The introduction of nitrous oxide (1844) and of ether (1846) into medical practice, with which the names of Wells and of Morton are so honorably connected; the establishment of the operation of ovariotomy by McDowell, of Kentucky, upon a secure scientific basis—these and hundreds of other achievements of lesser brilliance are too familiar to need mention.

American Medical Literature.—In the production of medical books America is behind other countries, while in the more ephemeral forms of medical literature she leads the world.

This Congress meets at a period of peculiar and critical interest in medical education, and I am glad to say that for the first time in the medical history of the United States we may feel proud to have such a meeting convened here, and to invite a close examination of our educational standards and facilities. I should fail in courtesy and in candor alike were I not to acknowledge the great value of the example which has been so consistently set by Latin-America and by Canada in the maintenance of a high standard of qualifications for medical practitioners.

Its Future.—A broad field opens before us for the study, with the aid of collective investigation, of the distribution and course of phthisis and rheumatism and other important diseases as influenced by race and locality. The endemic fevers, other than malarial and typhoid and yellow fever, which are said to prevail in various parts of North and South America, have long demanded systematic investigation to complete the study which the illustrious Drake began. We shall now have the opportunity of studying, equally by means of collective investigation, the relative effects of various climates on the numerous races now represented in America, and of determining more accurately the scientific and practical questions connected with our extensive series of health resorts which embrace the finest examples of every type. There are, indeed, none of the sections provided for in this Congress from whose work more valuable results should follow than from those on medical pedagogics, on hygiene and climatology, and on quarantine.

Education of Public Sentiment.—Everyone knows now that the most dreaded diseases are inseparably connected with definite organisms, that these organisms have special laws of development and distribution, that to destroy or exclude them is to avoid the disease, and that to tolerate conditions which favor their development is to encourage and invite the attack of the disease. When these simple, demonstrable propositions are considered in connection with such scourges as cholera and yellow fever, and typhus and typhoid fever, and scarlatina and diphtheria, and epidemic meningitis, it needs no further argument to prove the value and the necessity of quarantine, and of efficient medical inspection and protection. Nor does it need further argument to show the wisdom of establishing laboratories of hygiene at many points over the country, of equipping them amply with the ablest men and the finest apparatus, and of endowing them liberally, so that the search after the yet unknown causes of disease, and after the best methods to prevent the development of such causes as are known, may be prosecuted with ceaseless vigor.

To attain these ends is the last and greatest service to be rendered to science and to the nation by our Congress. Our combined influence will be irresistible when used in advocacy of higher education; in carrying out large plans for the scientific study of our national life, as affected by social and climatic influences; in the adoption of remedies and remedial measures of demonstrated merit, and in the insistance upon a fuller recognition of the lofty function of preventive medicine. "Salus Sanitasque Reipublicæ, suprema lex." Let us acquire here a closer touch with each other, a deeper faith in our profession and its noble destiny, and a stronger determination to labor in brotherly co operation for the loftiest ideals of service to science and the race.

SECTION ON GENERAL SURGERY.

First Day, Tuesday, September 5th.

John B. Hamilton, M.D., LL.D., of Chicago, Ill., President, in the Chair.

Address of the President.—Colleagues, for the first time in the history of the American Continent, the medical men of the Americas meet for the purpose of scientific advancement and the cultivation of closer relationship. The countries of Washington, the land of Bolivar, and the sunny islands of the Southern seas, send their representatives to this capital of their oldest republic.

Our statesmen long desired close union between the American republics, and the medical profession have always stood ready to carry out their share of the patriotic duty; and we are inaugurating the first of what we hope may be the beginning of a series of Pan-American Congresses.

The rapid evolution of surgical knowledge is one of the wonders of this remarkable age, and surgeons may fairly claim that their own branch of the profession has kept pace with the stupendous advance made by the collateral sciences.

The labors of Darwin,* Huxley, Herbert Spencer, Pasteur, and Lister, in the last decade, have made possible the practical sucesses of the present decade.

There is at this time no organ or tissue of the body removed from the remedial scalpel, and the questions presented are rather those of method than those of original discovery.

Surgical Bacteriology.—This study, which includes that of microbic products, has still much to disclose, but we base our practice upon the immortal discovery of Pasteur.

Antiseptics of the Ancients.—The vulnerary compounds of the ancients were largely composed of what we now know as antiseptics. The terebinthinate and metallic dressings of the Alexandrian period, we can accept to-day as true antibacillary agents. The red hot iron and boiling oil of the ancients may be said to have formed a true aseptic eschar. They knew nothing about aseptic surgery. They were ignorant of causes, all they were interested in were the good results obtained. While bacteriology has added much to our knowledge of tuberculosis, though still less of carcinomata, the treatment of both still remains unsatisfactory, and as yet no Pasteur or Harvey has dawned upon our horizon to unveil the mystery to which heaven has not given this generation the key.

Through improvements in technique, etc., in all prob-

ability tuberculosis and carcinoma will be classed among the preventable diseases. Either of these two diseases alone causes more deaths than yellow fever and cholera combined, yet no government has set on foot any systematic or scientific inquiry as to its causation or propagation. Much, however, has been done by the Bureau of Animal Industry in studying and preventing animal tuberculosis, but among human beings practically little or nothing has been done.

A Brief Splint Technology for Surgeons.—After the President's Address the afternoon session opened with the reading of a paper with the aforesaid title, by Edward A. Tracey, M.D., of Boston, Mass.

The objects of this paper are to treat in detail of a new material and method used in surgical splint making, to urge the surgeon to become the maker of suitable splints for cases occurring in practice, and to indicate lines of procedure in apparatus-making, which promise rich results in general and orthopedic surgery.

Material.—Its basis is wood pulp, made preferably from the crushed fibre of the poplar tree. It is rolled into sheets in such a manner that the fibres intertwine loosely in every direction, thus giving an increased ductility to the product. These sheets are further strengthened by having a fabric introduced between the layers of the pulp, or by interweaving with the short, crushed wood-fibres a long jute or other tough fibre. These sheets are made of several thicknesses, which I shall designate by number for convenience, each figure representing one millimetre. Thus, sheet No. 1 has a thickness of one millimetre, sheet No. 2, of two millimetres, and so on.

The characteristics of this material are stiffness or rigidity when dry, and plasticity with toughness when moist. Its rigidity can be increased *ad libitum* by the use of a silicate solution as a moistener.

Applied over Irregular Surfaces.—A splint cannot be directly moulded over the ankle joint, owing to the great irregularity of the surface presented. This can be overcome in several ways. The anterior splint should be cut from sheet No. 1, and applied, after moistening, to the limb, taking care to keep the outer border in contact with the skin and the superfluous material pinched up between the thumb and forefinger, and a bandage applied to perfect the moulding of the splint. A second way is to cut away the superfluous material, bring the edges together, and retain them there by a strip of material over the cut edges.

Moisteners.—Water, or a stiffening solution, can be used to moisten the material previous to moulding. The advantage of water is its omnipresence, and with its aid a very serviceable splint can be made. Such a splint, however, is liable to be softened by the absorption of perspiration, or, on children, of urine; and for this reason, as well as cleanliness, it should be protected by a covering of oiled paper or silk, or mackintosh, or, best of all, by a coat of varnish.

Potassium Silicate.—A solution of potassium silicate has several qualities which render it the best of the stiffening solutions experimented with. Any desired degree of rigidity up to brittleness can be given the splint by using a silicate solution as a moistener. The stronger the solution the more rigid the splint.

In making a silicate solution, the best one for ordinary use is one made by taking seventy parts of the commercial solution sold to surgeons and adding thirty parts of water thereto. A splint rendered rigid in this wise is not affected by perspiration. Another quality, of exceptional advantages in compound fractures, is that this solution has strong antiseptic properties.

Dextrine.—This solution is made by mixing one-half pound of dextrine to a pint of water. A splint with this solution can be remoistened and remodelled, which is quite an advantage in many instances, as in cases where swelling disappears it can be brought into closer approximation. The dextrine can be carried about in powder form, and by the addition of eight grains of corrosive sublimate an antiseptic solution can be made at a moment's notice.

Manner of Moistening the Sheets.—This is most satisfactorily done by applying, by means of a flat paste-brush, the fluid used, on both sides alternately, of the splint-blank, and repeating until the proper amount of the fluid is absorbed.

Amount of Moisture.—Practice enables us to determine the exact amount of moisture suited for our purpose. As a rule, get just sufficient amount of moisture to render the blank somewhat flaccid. If too moist it becomes difficult to retain it in shape while drying, besides causing unnecessary delay.

The time required varies from ten to forty minutes, the thicker sheets requiring more heat. Any source of heat will answer, and while drying you should see that the desired shape is retained until permanently fixed.

Splint Headings.—I shall briefly consider their application to the human body, under the headings of: 1, head splints; 2, trunk splints; 3, upper limb splints; 4, lower limb splints.

The above simplicity of classification will be necessarily violated in specific cases where compound splints, embracing parts of different systems, are constructed. I shall briefly describe two splints.

Spinal Column Splint.—This is simple and cheap. The blank is cut from sheet No. 1, and the potassium salicylate solution used, and should envelop the patient's body once and a quarter around. The patient should be placed in same position as for a plaster jacket, with light woollen garments underneath, and bringing the sheet around the body. A hinge is made by bending the pulp until sufficiently broken. The surface should be pressed well into the hollow of the back, and superfluous material pinched or folded up as before described.

Forearm Splint.—This makes a very light and serviceable splint, and retains the bones in position without the annoyance of carrying a weighty, cumbersome splint; a simple palmar forearm splint answering in most cases.

In the discussion which followed, Dr. McLane, of Detroit, Mich., said as serviceable a splint as was necessary could be made extemporaneously from a roll of newspapers, which, as a rule, could always be found at hand; they were light, cheap, and could be moulded to suit all cases of forearm. In Colle's fracture an anæsthetic should be used, and when properly set no splint is required except a little plaster to give support where there is a tendency to displacement, and without a splint we are enabled to keep up passive movements of the finger joints, which we should always do to avoid contractions, etc.

Dr. Reginald Sayre, of New York City, said while the splint was a serviceable one, however, the crinkles and puckerings incidental to pinching up the folds when moist to make it fit the spine, would not make it a very comfortable surface for the crest of the ilium to rest upon. It could not be adapted closely enough to the body of a child with prominent bones to make it a comfortable support. It should be fitted to a model instead of the child, if you wish to make it accurate.

Second Day, Wednesday, September 6th—Morning Session.

Simplicity in Surgery was the title of a paper by Robert W. Johnson, M.D., of Baltimore, Md. Simplicity in all surgical operations is the one great thing which all should keep in view. The tendency of the present day appears to be for the majority of surgeons to add something new to an instrument or an extra twist to a suture, upon which he can hang his name. The immortality of any discovery is intensified by its simplicity. A surgeon should be able to devise plans so simple that his operation can, in an emergency, be done in a hovel as well as in the hospital. Do not understand me to say that I would do away with all precautionary measures; on the contrary, I would not sacrifice an ounce of care for a pound of simplicity; but strip all operations of useless,

cumbersome frills. We should use home-made appliances wherever we can, and there is nothing so variable as the so-called antiseptic treatment.

Surgical cleanliness is essential. Boiling is a practical germicide, and by placing your instruments, tray and all, in boiling water for a stated period you render them thoroughly aseptic, and this can be done in any kitchen. A brush and bichloride solution for washing the surrounding parts is all that is necessary. Should you wish to apply an antiseptic dressing, gauze wrung out in bichloride solution will answer nearly all purposes. Then render the hands aseptic and observe all ordinary laws of cleanliness.

Gun-shot Wounds.—What better treatment than leave the bullet alone, unless it carries with it some of the clothing or other septic material with it into the wound? I seldom rummage for a bullet unless complications are present other than the bullet itself.

Sutures.—New sutures are brought to our notice, lasting for a few days and then giving way to a newer one or bobbing up under a different name; but the simpler ones still survive.

Hemorrhage.—Various bands and appliances have been and are continually being devised for controlling hæmorrhage, but the Esmarch's band has come to stay, owing to its simplicity.

In the discussion which followed, Dr. Quimby, of Jersey City, remarked: "We need such wholesome criticisms. The complex preparatory arrangements made by some surgeons have often been a source of injury to the patient, by adding to the time consumed by the operation and keeping the patient under the influence of anæsthetics for an unnecessarily lengthy period."

Observations on the Rotary Lateral Curvature of the Spine with Special Reference to Etiology and Treatment was the title of a paper by Jacob Teschner, M.D., of New York City. The usually unsatisfactory results derived from the treatment of these cases indicate the importance of proper and early attention.

Etiology.—Occurs most frequently between the seventh and fourteenth years. Girls are more prone to this disease than boys. Why this is so has not been definitely determined.

Passing over the various well-known causes, I will consider but the following four, viz.:

1. Hereditary tendency. 2. General temperament, and the condition of the mind and nervous system. 3. Lack of development of the muscular system, and the general physical condition. 4. Habitual faulty position with superimposed weight.

Hereditary Tendency.—Frequently I find decided scoliosis in the mothers of girls brought to me for treatment.

General Temperament and the Condition of the Mind and Nervous System.—Most girls afflicted are apathetic, indifferent, lazy, and somewhat morose, and are disinclined to romp and play with the same vigor as their companions after school hours. The facial expression is frequently a vacant stare, with dropped jaw and open mouth, giving the patient a silly appearance; all of which changes after energetic treatment. There is a lack of co-ordinating power, making it impossible for some patients to fully extend an entire extremity. If the wrist is extended, the elbow is apt to be flexed. This lack of co ordination also disappears on treatment.

Lack of Development of the Muscular System and the General Physical Condition.—General muscular development is very poor, some of the muscles being almost rudimentary, and when suspended patients are rarely able to sustain their own weight. Physical condition is bad and associated with poor digestion.

Habitual Faulty Position with Superimposed Weight.—Resting the weight of the body more upon one foot while standing, or sitting more upon one buttock, permitting the shoulders to fall forward, permits a sagging of the upper portion of the body upon the lower, and twists the spine and trunk into a mild form of deformity, which, if persisted in, becomes permanent, by producing actual bony and ligamentous changes. Faulty sitting is more frequent than faulty standing and is particularly noticeable in the school room.

I here wish to call attention to the pernicious effect of long and continued school hours without intermission for play or calisthenics, and also the improper furnishing of school-houses with benches, chairs, and desks of a regulation size, regardless of the varying sizes of the pupils.

Treatment.—The first step is prompt removal of the causes. Deformities of all kinds should be corrected. Keep the child away from school. Attend to the general health. Frequent baths to improve the condition of the skin. Tonics, if necessary, to improve muscular and nervous systems, and by sufficient open-air exercise.

The patient should have a properly constructed chair to sit upon. The back of the chair should properly fit to the child's back, reaching to the shoulders, with the feet resting comfortably upon the floor. The patient should rest frequently by lying supine upon the floor, with lower extremities extended and arms fully extended above the head. Self-suspension twice a day should be advised.

Treatment of the Three Degrees of Scolioses.—1st. Habitual scolioses which can be obliterated by the voluntary muscular efforts of the patients. In these cases I rely entirely upon the general directions before described, and systematic and regular gymnastic exercises. I give no support of any kind, not even a corset, thus leaving the muscles which are being developed and strengthened by exercises entirely unrestrained and free. 2d. Scolioses unaffected by voluntary muscular efforts, but which can be reduced or obliterated by suspension of the patients. I adopt the plan of treatment as in the first class of cases, adding proper, light, and well-cemented plaster of Paris corsets while the patients are suspended, and cause them to be worn until they can correct their deformities through their own muscular efforts. Where the deformities are only reduced under suspension new corsets are applied from time to time, until at last the deformities can be entirely obliterated by suspension. 3. Scolioses where the deformities are fixed. To the treatment of the second class I add that of forcible daily twisting of the spine in compression of the ribs by the use of an apparatus used by Dr. A. Hoffor, of Würzburg, which is described in the "Zeitschrift fur Orthopædischer Chirurgie," 1891. The result of this treatment I am not, as yet, in position to speak positively, but I am led to expect a marked improvement from its use.

In the discussion which followed, Dr. Quimby, of Jersey City, thought the reason for the disease predominating among girls was owing to their faulty manner of dress compressing the vessels supplying the spinal column and thus cutting off its proper nutrition. I believe in giving the muscles full play, and so with the Sayre jacket, you must give the muscles play and not depend altogether upon artificial support in the treatment of the disease.

Dr. John C. Schapps, of Brooklyn, N. Y., agreed with Dr. Quimby, and from his experience would give the muscles exercise in preference to relying upon artificial support.

In closing the discussion Dr. Teschnor replied that he took away all artificial support as soon as possible, but at first artificial support is absolutely necessary until the bones are able to bear the weight of the body. My plan is to see that they get daily gymnastic exercise in a proper manner.

Causation, Pathology, and Treatment of Carbuncle was the title of a paper read by David W. Graham, M.D., of Chicago, Ill.

Afternoon Session.

Recumbency in the Treatment of Pott's Disease, was the title of a paper by John C. Schapps, M.D., of Brooklyn, N. Y., in which he says it is not alone the collapse of a cavity produced by disintegration which is the local determining condition of the deformity of

Pott's disease. The softened bone which surrounds for some distance and merges into the seat of actual destruction is squeezed out by longitudinal pressure, bent out by antero posterior leverage, and pushed out by direct backward pressure. To directly antagonize these deforming forces it is necessary to have a passive spine. Portative apparatus are limited in their efficiency by reason of the distance and heterogeneous character and mobility of the parts which intervene between their points of application and the lesion sought to be controlled, and are usually applied with a view to maintaining the activity of the spine as a support and a base for muscular exertion. Recumbency means more than simply putting a patient to bed. It implies the retention of the whole spine in the best possible position so that the separate parts remain unchanged, or subject to such changes only as the surgeon may make. When the patient is horizontal, the force of gravity which had acted when upright as a deforming agent can be converted into a reforming force. Direct backward pressure can be accurately antagonized. Muscular action and consequent interosseous pressure, now greatly reduced by the general condition of rest, can be overcome by fixation and by less traction than would be required to raise the weight of what were superincumbent parts. The spine thus relieved of the performance of all its active functions, and saved from all traumatisms except that of respiration, is placed in the best possible condition for repair. And, what is of great importance, fever and the drain of muscular spasm, pain and perverted nutrition, are met by a state of systemic rest. Clinical experience has demonstrated the truth of these theoretical considerations. When the proper conditions are maintained, patients are usually relieved of pain, sleep and eat well, and soon lose the drawn, old, tired expression so familiar upon the faces of those suffering from prolonged muscular spasm. The improvement in general health which they commonly make is, to those who have been burdened by the traditional fear of confinement, surprising. I believe that by systematic recumbency the course of the disease is materially shortened, much destruction is avoided and much deformity prevented. Another merit of this therapeutic measure is that its employment does not demand the mechanical skill and experience necessary to the successful construction and use of a portative apparatus. When a spinal brace cannot be readily obtained, recumbency may, if the mechanical conditions are carefully studied, be safely resorted to, until other arrangements can be made. Patients may be removed long distances with comfort and safety upon a frame.

The indications for recumbency are: 1. As a routine measure, as soon as a diagnosis of spondylitis has been made, or even when it is probable. 2. In cases of patients wearing braces, persistent pressure sores, progressive deformity, psoas contraction, acute or increasing abscess, loss of power, pain, night-cries, grunting respiration, inclination to lean on chairs, etc., or any other suggestion by face, attitude, or gait that the proper degree of support has not been secured. For the fulfilment of all the indications a wheeled couch is recommended, consisting of a canvas support laced to an iron frame, which is adjustable at any convenient height or incline. The canvas is provided with the necessary aperture, closed by a flap. Straps, pads, and weights are added for support, fixation, and traction.

Adjustable pressure to antagonize the kyphotic projection is produced by means of straps. The patient need rarely be moved for any purpose whatever. When acute symptoms have been absent for several months the patient may gradually and tentatively be allowed greater liberty under the protection of a brace carefully adapted to the needs of the case.

Tapping the Lateral Ventricles of the Brain was the title of a paper by JACOB FRANK, M.D., of Chicago, Ill. There should be no hesitation in tapping the ventricles wherever it is indicated. In tubercular meningitis it is the effusion and not the deposit of tubercles that causes danger and death.

One case in point was that of a patient suffering from paralysis, loss of sensation and convulsions, and a diagnosis of tumor of the upper fissure of Rolando had been made. No tumor was found, but on tapping the ventricle three or more ounces of fluid escaped, giving immediate relief to the patient of all symptoms, none of which have since returned.

Method of Reaching the Ventricles.—In a general way, after the skull has been opened, it is not a difficult matter to puncture the ventricles from any portion of the cerebral cortex. From my own experience, by incising the membranes I can make digital examination much better.

Instrument Used.—I prefer to use a cannula with a blunt stylet, as being less likely to wound any arteries.

Shall Drainage be Free and Rapid, or Slow?—This must be decided in each individual case. If it is an inflammation in retrogression, tapping and removing the fluid without drainage is best. If there is an abscess of the brain which has broken into the ventricle, rapid evacuation and drainage is best and safest.

Indications for Tapping.—Among the most urgent are effusion of blood into the ventricles from trauma or disease, abscess involving the ventricles, chronic hydrocephalus without enlargement of the head; with enlargement of the head it is likely to lead to fatal results.

In discussing Dr. Frank's paper, DR. GRAHAM, of Chicago, said, in all cases of traumatism and inflammation with one sided paralysis, tapping should be done, and if we have or suspect abscess, the case is not properly investigated unless we have explored the ventricular cavity.

PROFESSOR LAVISTA, of the City of Mexico, said that he fully agreed with Dr. Frank, but instead of simply trephining he would perform craniectomy, which was more conducive to a final permanent cure than tapping alone.

Some Points in the Surgical Treatment of Appendicitis was the title of a paper by AUGUSTUS P. CLARKE, A.M., M.D., of Cambridge, Mass. In every case in which there is reason to believe that the vermiform appendix is involved, though the symptoms at first may be mild or transient, the surgeon or medical attendant should be ready to institute measures against the occurrences of sudden surprises and unusual results. There is great probability in almost any event that the appendix, during an attack of inflammation, will become adherent to other parts in the immediate vicinity. In many cases, if not in the most, incision should be made over the point of greatest tenderness; this corresponds to the McBurney point. A liberal incision, when timely, made over the tender part, has always yielded, in the cases occurring in the author's practice, an immediate and permanent result. In all cases after the incision has been made the parts should be thoroughly explored; if the appendix is within easy reach it should be brought forward and then sewed off by means of sutures of aseptic kangaroo tendon. The cordwainer's stitch will be most convenient for accomplishing this. If, however, the appendix is bound down by firm adhesions, or if it cannot be found without much difficulty or without doing excessive violence to the cæcum or to other parts, it will be far better to allow it to remain, for its presence, when thus left, will not seriously interfere with the patient's recovery. In most cases when the mesentery or other parts have been sufficiently detached the appendix should not be tied but should be clamped, and then sewed off by means of carbolized animal sutures; as soon as all hemorrhage has been controlled the appendix may be incised about two centimetres from the cæcal tissue. In order to prevent adhesions of the stump or base of the pedicle to other structures the peritoneal tissue in immediate vicinity of the margin of the incision should be closely approximated by a subperitoneal suture. The smaller sized kangaroo tendon, rendered aseptic, should preferably be the material for such use.

The danger of the subsequent occurrence of hernia may

be overcome by paying strict attention to the closure of the severed layers that have been divided in the operation; the peritoneum, the muscular tissue, the fascia, and the external integument should each be brought together separately. Carbolized animal sutures should be used for this purpose. Entire closure of the wound by the first intention can be effected only in those cases in which the operation has been undertaken in the early stage of the attack. After the formation of an abscess complete union at first cannot be expected to follow, because some method for facilitating drainage for a while will have to be employed. Trendelenburg's posture in this, as in all cases of abdominal section for intestinal affections, cannot be overestimated. In every such case of abdominal section when a drainage-tube has been employed, the possibility of the occurrence of hernia should not be overlooked. In all cases, whether the drainage-tube has been required or not, a firm binder or a thorough bandaging should be employed; the patient for some weeks should be kept for the most part in the horizontal position. The question often arises: Should the surgeon, when called upon in the later stages of a case, advise operative interference? In answer to this, it may be remarked that our experience in such cases is favorable to the adoption of an exploratory incision. When an operation is undertaken in the later stages, the patient must, of course, assume more risks, for the chances of recovery are much less than when an operation is attempted much earlier, though surgical measures at such late date may prevent the rupturing of an abscess into the peritoneal cavity; when there has been such a rupture, removal of the pus and cleansing of the parts may afford an opportunity for a retrograde process of the disease to take place. Nothing, therefore, but the occurrence of extreme collapse should weigh against the employment of operative measures. In those cases of appendicitis which have gone on to suppuration before operative measures have been undertaken, there may occur secondary abscess in other portions of the abdominal cavity. An operation to insure relief must therefore embrace a course of procedure which will afford a free discharge to all accumulation of purulent exudation; it will sometimes be necessary to make a prolonged dissection at different parts and also to overcome adhesions of an unusual extent. Great care will also have to be exercised lest an opening be made into an adherent intestinal mass. In some instances portions of the epiploon may have become gangrenous; there may occur in the veins of the abdomen an inflammation that may extend outward to the other vascular tissue. In carrying out, for these complications, the necessary surgical treatment, much judgment will have to be exercised, and much precaution taken that the dissection or search be not prolonged beyond what may afterward prove to be a beneficial or safe proceeding.

SECTION ON GENERAL MEDICINE.

First Day, Tuesday, September 5th.

Victor C. Vaughn, M.D., of Ann Arbor, Mich., President, in the Chair.

The Principles of Immunity and Cure in the Infectious Diseases was the subject of the President's address. He said that he wished to present a theory of the immunity of the infections. Theories benefit chiefly by their suggestiveness. A theory must not be valued entirely by its truth, but its use in leading to results must also be considered. Immunity may be natural or acquired. For example, the domestic fowl is not susceptible to anthrax, but the fowl may be rendered susceptible; still the immunity is natural. The child is susceptible to diphtheria; the adult takes it with difficulty. Dr. Vaughn believes that immunity is inherent in the parent cell. The difference in immunity is in the person, not in the anthrax. The germ is the same, but the adult immunity is due to the attained cell activity. Dr. Vaughn believes that immunity is a question of cells, not of chemistry. Ehrlich believed immunity wholly humoral. This view must be modified. The transmission of immunity from the father to the child must be cellular. The head of the spermatozoa is fused with the cell of the ovum. There is a quantitative relation between cause and effect in the production of immunity. A man may have small-pox a second time if the exposure be very virulent or the man's health is much below par. The immunity produced by a germ is greater than that produced by a vaccine. A third method is by sterilized cultures. What constituent of the sterilized culture gives the immunity? All will agree that it is not the ptomaïne.

The theory of antitoxins is very convenient. This is not the same as the killing of certain germs by their own productions. It is, however, as if we should find in nux vomica an antagonist to strychnine.

The immunizing substance is in the germ itself. Artificial immunity has not been obtained except by the injection of the germ itself in its own cell-wall or in solution. The same effects have been obtained by the bodies of bacteria or live bacteria modified.

Dr. Vaughn insists that the immunizing substance is part of the germ itself. It is not a split product, but the essential characteristic part of the cell. The three methods of immunity are in principle the same: 1, by an attack of the disease; 2, vaccination; 3, sterilized cultures.

The immunity is due to some part of the cell or something produced by the cell. What organs of the body are effectual we do not know, but probably the cell producing glands. The spleen, the bone marrow, the thymus and thyroid glands are probably the ones. They are the organs of the nucleated white blood cells which contain larger and more numerous nuclei than any other tissue in the body. It is, Dr Vaughn believes, the nuclei that is effective. He has tried to prepare this substance in its active form from compressed yeast and from brewers' yeast, but finally succeeded by using pure cultures of yeast.

Dr. Vaughn has demonstrated the truth of his theory by experiment. Yeast nuclein has marked germicidal effects. Five cubic centimetres of salt solution inoculated with the staphylococcus pyogenes aureus was found to contain many germs, but after two hours they were all dead. Experiments on guinea-pigs (with control animals) showed that tuberculous sputum was rendered innocuous. A 1 to 2,700 solution destroyed germs. The solutions keep well, and proteid materials are preserved by a minute quantity of nuclein.

Dr. Vaughn seems to have discovered an internal antiseptic which will kill germs without injuring patients. There is no chemical substance that will do this. The nuclein therapy does not call for minute doses. We may hope for great results, but if this fails we must seek farther in a like direction.

Forms of Malaria and their Characteristic Features was the title of a paper by Dr. Francisco A. Risquez. Caracas, Venezuela. He said the malarial diseases in Venezuela may be classified as follows: 1. Intermittent forms, generally quotidian, occasionally tertian. 2. Continued forms, including the varieties *a*, bilious, *b*, icterohematuric. 3. Pernicious forms, including the varieties *a*, pernicious proper. *b*, complicated. 4. Larved forms, including the varieties *a*, periodic, *b*, continued.

The forms of the first group are easily recognized by the features of the paroxysm and by the periodic element. When the access is prolonged, the diagnosis may be difficult. The forms of the second group are distinguished by the gastro-hepatic symptoms and the indications of the urine. They may be confounded with others, especially the yellow fever, and the distinction becomes often a matter of life and death. The forms of the third group are recognized by the pre-existence of malarial paroxysms. It may become almost impossible, however, to distinguish between cholera, pneumonia, or tetanus and cases of choleriform, dysenteric, tetanic, etc., pernicious fevers. The forms of the fourth group present still greater difficulties, especially in the continued varieties. They may

assume all the appearances of typhoid fever, of cholera, of dysentery, of paralysis, of hemorrhage. The malarial cachexia may simulate tuberculosis, hepatic abscess, etc.

An early diagnosis is indispensable in these cases, because they require the fearless administration of quinine; and this drug may be contra indicated in the non-paludal diseases. There is but one unquestionable method of diagnosis: the microscopic examination of the blood. All malarial manifestations are accompanied with melanœmia; melanœmia presents itself exclusively in malaria, the sign is, therefore, pathognomonic. A drop of malarial blood, under the microscope, shows the masses of black pigment in the plasma. The manipulation requires no special technique; it is simpler than the examination of the urine. It does not require, as the parasite of Laveran does, an investigation by an expert with high powers. Our method requires only a few slides and covers, and a drop of blood obtained from the finger, previously washed. The preparation is taken to the laboratory and there examined. The strong mineral acids may be used as reagents. A search after pigment should be made in all suspected cases. The number and size of the pigment masses is proportional with the degree of malarial poisoning. If they are found at all, quinine should be given. I have found pigment in all forms of malaria. I have found it also in other diseases, but only as an evidence of malarial complication. Melanœmia is always an indication for the administration of quinine. The life of the patient depends often in these cases upon a prompt diagnosis.

Dr. David Cerno and Dr. Cronyan, of Buffalo, discussed this paper.

The third paper was read by Dr. Mendezabal, of Orizaba, Mexico, on "Paludal Fever in Orizaba." This was a complete exposition of the subject and occupied the latter half of the session.

Second Day, Wednesday, September 6th.

An Outbreak of Typhoid Fever Presenting Unusual Features.—Paper by Dr. William C. Dabney, of Virginia. This paper was based on a study of fourteen cases of continued fever occurring at the University of Virginia between January 15 and April 1, 1893. The epidemic, or outbreak, presented the following features of interest: 1. There had been no typhoid fever in or around the University, so far as I could learn, for several months. 2. Between the middle of January and the first of April, 1893, there occurred fourteen cases of continued fever among persons living or employed on the University grounds. 3. The persons who had this continued fever had rooms at widely separated parts of the University grounds, but all took their meals at the same hotel. 4. The water supply of this hotel was the same as that of the other hotels and of other parts of the University, and the sanitary condition of the building was good. 5. A part of the milk supply was obtained from cows whose teats had been washed in water contaminated by sewage and probably infected with typhoid-fever germs. It was in evidence also that at least five of the fourteen persons used milk at every meal. 6. Of the fourteen cases of continued fever, five presented the typical features of typhoid; seven were typical in character; and of the other two I cannot speak with certainty, as they were not under my care and I could get no satisfactory history of the cases.

This paper was discussed by Dr. Ashton, of Dallas, Texas, who confirmed the views expressed by the author.

Dr. Claiborne, of Virginia, said that he found the diagnosis between typhoid and malarial fever difficult. He is in the habit of testing such cases by giving quinine, gr. xx., three times a day.

Dr. Larabee, of Kentucky, reported thirty-seven cases of typhoid due to washing milk-cans with sewage-infected water. He agreed with Dr. Claiborne in the diagnosis by quinine. He considered the term "typho-malaria" a disastrous error. He believes that the intestinal lesions will be found in all atypical cases of typhoid. When diagnosis has once been established, the sooner quinine is abandoned the better.

Dr. Cohen, of Pennsylvania, asked why mixed infection was not possible. He also stated that atypical cases of typhoid were very common in Philadelphia. He uses quinine hypodermatically to establish the diagnosis.

Dr. Leighton, of Brooklyn, N. Y., reiterated the opinion of Dr. Claiborne.

Dr. Sibney, of Pennsylvania, reported forty cases in an orphan asylum.

Dr. West, of Galveston, Texas, said: "The 'typhoid condition,' so called, has led to confusion because it is not found in most cases of typhoid." He believed quinine a reliable test drug to eliminate the diagnosis of malaria. He had never seen a true case of mixed infection. He believed they do occur, but are very rare.

Dr. Wilcox, of South Carolina, said that he had used quinine hypodermatically for diagnosis.

Dr. Andus, of Pennsylvania, agreed with the latter.

Dr. Parsell, of Illinois, emphasized the importance of treating doubtful cases with great caution, as perforation is liable to occur.

Dr. Vaughn, the Chairman, said that typho malarial fever had never been demonstrated by examination of the blood for malarial germs and the finding of the lesions of typhoid fever in the intestines. There are three theories of typhoid—1. As due to a single germ and no other. 2. That it is a modified form of the bacillus communis coli which sets it up. This is the French theory, and so it is possible for any fecal infected water to cause it. 3. Dr. Vaughn's own theory: it may be caused by any one of a number of germs, which differ—hence the different types. In an experience of many thousand cases, he had never seen a typical case of typhoid as described in the text-books. He had never found the typical German germ. In a recent outbreak he had found a similar germ in the drinking-water and in the spleens of the victims, but the germ was not the typical typhoid germ as described by the Germans. He believed that typhoid might be due to many different germs. It is a mistake to try to divide diseases by too sharp lines.

Most of us under ordinary circumstances are immune from typhoid. He believed that a healthy person might carry the infection without himself developing the disease.

Dr. Dabney closed the discussion.

A Contribution to the Clinical Study of Prolonged Remittent Fever.—The second paper with this title was read by Dr. David Lobo, of Caracas, Venezuela. He said that it was his purpose to describe a certain form of malarial infection, which, he believed, has received very little attention from standard writers on tropical diseases. The description was based on clinics exclusively, referred to the various individual conditions, and was intended to impart his personal views in regard to the malady as it occurs at Caracas. The normal type of malarial fever, the intermittent form, is rarely met with in said city, and its presence, when noticed, can generally be traced to an original exception at some of the genuine sources of the infection. Close examination will seldom succeed in detecting any marked congestion of the liver and spleen in cases developing within the bounds of the city. This congestion cannot, therefore, be regarded as a characteristic manifestation of the fever under consideration. The aspect and extraordinary course of the pyrexia are probably due to corresponding variations in the power and quality of Laveran's corpuscles, to over-poisoning of the blood, or to some distinct element operating simultaneously with the paludal germ. Investigations in this direction have not as yet been made.

Temperature.—Variations in temperature do not respond to any fixed law of recurrence. It generally ranges from 38.5° to 40.5° C., and drops or rises unexpectedly. Remissions take place at any moment of the day. Intermissions may recur, but they never should be

trusted. Chills and sweating may be observed, but never as definite stages of the fever.

Special Symptoms.—Circulation and respiration do not exhibit any deviations, except those induced by the reaction of the organism under the influence of abnormal heat. Divergencies between pulse or respiration and temperature should be looked to and carefully treated. Digestion: Appetite either very poor or absent. Tongue smooth, clean and moist. Bowels generally act well, but diarrhœa or constipation is sometimes present. Intense abdominal pain, meteorism, profuse diarrhœa, and obstinate constipation are indicative of some complication located in the intestines. Vomiting may occur, but it is never distressing. Urine offers no change worth mentioning. The excretion of albumin or blood is never observed. Liver and spleen: In respect to these organs, reference is made to the preliminary considerations contained in this abstract. But he desired to lay particular stress on the fact that the spleen is seldom enlarged or congested in long remittent fever. Nervous system: Headache and vertigo are not common symptoms. Delirium is never present. There is no impairment of sensibility and mobility.

Course, Duration.—The fever frequently runs its entire course free from complications. There are serious incidents, generally; their gravity depends on the importance of the organ attacked. Defervescence takes place, either gradually or by crisis. The former process is more common. As regards duration, remittent fever is not governed by any cyclic law, as typhoid or yellow fever are wont to be. The briefest term ranges from fifteen to twenty days; the longest extends to three months, seldom more. The average duration can be estimated at thirty-five days. It is obvious, from the preceding description, that the whole clinical history of the disease may be condensed into two prominent facts, viz., an irregular temperature and a long, weary course.

Diagnosis.—The main points by which long remittent fever can be discriminated from other malarial forms, are its uncommon course, its irregular temperature, the absence of marked stages and of hepatic or splenic troubles, and its resistance to quinine. Between it and typhoid, there is no possible confusion; typhoid is cyclic in its career, is accompanied by intestinal lesions, presents peculiar eruptions, and is extremely rare at Caracas. The so-called typho-malarial fever exhibits typhoid symptoms, which are never present in ordinary remittent. Vomiting of black matter and albuminuria are perfectly distinctive of yellow fever. The course of this never exceeds ten days. Pernicious fevers are sufficiently distinguished by their short duration and characteristic aspect.

Prognosis.—Where complicating or intercurring processes do not occur, a fatal issue is seldom to be feared. High temperature, extreme weakness, frequent vomiting, copious sweating, and diarrhœa, generally impart a serious character to the disease. Prognosis is entirely different when we have to deal with organic complications. In order of gravity, cerebral disorders rank first, and are followed by pulmonary congestion, entero-colitis with watery discharges, intestinal ulceration, and peritonitis. Congestion of the liver recedes under proper treatment. Measles, as an accident, occurred in one of my cases; this is the only intercurring disease I have ever observed.

Complications.—The fever may give rise to a special inflammation of the lung, to which the term pseudo-pneumonia can be properly assigned. Crepitant râles are seldom heard. Tube respiration is an early sign. Sputa are viscid, scanty, and bloody, but seldom rusty. Pain is generally absent. The seat of the fluxion is subject to frequent change. The pleuræ are sometimes included in the process. Among nervous complications, none is so terrible as cerebral congestion. It may assume a convulsive or a comatose form, but the latter is more common. The convulsive form is probably due to meningeal congestion. The issue is fatal in nine cases out of ten. Encephalitis, localized lesions, and spinal derangements I have never seen to complicate the fever. Hepatic congestion is also a possible occurrence, but is not necessarily connected with the disease. It yields speedily to remedial agents. Abscess of the liver is very rare.

Acute entero colitis, dysentery, and choleriform diarrhœa are fearful complications, as they often lead to fatal results. Hemorrhage and acute peritonitis are apt to occur as secondary phenomena, subsequently to ulceration of the digestive tract.

Treatment.—These cases are slowly influenced by quinine. Warburg's tincture is a valuable remedy. Cold baths or lotions to lower the temperature, and a generous diet, are indicated.

Afternoon Session.

In the afternoon Dr. Osler opened the discussion of Dr. Lobo's paper. The belief is now universal that there exist in all types certain organisms, the plasmodia. They are diagnostic. We lack the evidence of culture outside of the body and of inoculation.

Dr. Osler said that he would not like to criticise Dr. Lobo's paper without experience in his country, but that in the absence of blood studies he would not feel certain that he might not have met with cases of typhoid fever. Dr. Osler said Dr. Resquez emphasized the value of blood pigment in diagnosis, but this is present in very small amounts in some very severe cases.

Dr. W. A. Thayer, of Baltimore, said that the common type of malaria in Baltimore was quotidian, though the tertian type was frequent. The tertian type is characterized by an organism the same as in other countries, an amœboid body which undergoes the changes which have been so often described. Segmentation of the organism always precedes a paroxysm. The flagellate bodies are sometimes seen. The quartian organism is like the tertian, but breaks into fewer segments. The organism in the fall type is entirely different. It has a ring-like appearance and it is smaller than the others, and has very few or even no pigment bodies. The segmenting bodies are not seen. The pigmented crescent is the most characteristic organism of the fall type of intermittent. They do not usually appear till after ten days. They do not appear in the tertian or quartian form.

Dr. Lobo said that the clinical appearance of his cases was so different from typhoid that he was positive that they were not cases of typhoid. He did not think that any comparison was possible. Typhoid was almost absent in Caracas. He had seen typhoid cases there, but very few.

Vaso-motor Ataxia.—The first paper of the afternoon session was read by Dr. Solis-Cohen, of Philadelphia, on this subject. He said may persons exposed to cold and wet will develop many different forms of disease. This is called idiosyncrasy. He called attention to a circulatory idiosyncrasy. He called it vaso-motor ataxia, because either paresis or spasm might be present. The most striking instances are seen in peripheral vessels. The cause is central. Graves's disease and Raynaud's disease are familiar.

He made the following points: 1. By the term vaso-motor ataxia it is proposed to designate the condition of inability of the mechanism of circulation present in certain persons, and characterized by abnormal readiness of disturbance, with tardiness of restoration of the equilibrium of the cardio-vascular apparatus. The manifestations are most strikingly displayed in the terminal vessels, and occur chiefly under the action of external influences, especially cold; of toxic agents; and of emotion. The stimulus may be applied centrally or peripherally, but in each case the resulting phenomena indicate a defect of central inhibition.

2. Vaso-motor ataxia is in many cases congenital; in some inherited; the condition is not rarely present in several members of a family.

3. In some cases the phenomena are of paretic, in others of spasmodic character. Usually the two kinds of phenomena are displayed in varying degree in the same patient. Whether spasmodic or paretic the symptoms are suggestive of inco-ordination.

4. In exophthalmic goitre, especially such cases as are produced by emotion or are markedly intermittent, is found the extreme type of the paretic variety of vaso-motor ataxia.

5. The form of Raynaud's disease known as "local syncope" furnishes an extreme type of the spasmodic variety; while "local asphyxia" exhibits spasmodic and paretic phenomena.

6. Between these extremes are numberless gradations down to the slightest departure from normality; while even the extreme symptom groups represent merely exaggerations of phenomena that under certain conditions occur in normal individuals.

7. Dermographism is an essential feature of vaso-motor ataxia, and in most cases factitious urticaria can be readily produced by cold or by pressure, or by both; mottlings of the skin, certain peculiar markings of the nails, teleangiectases, and stigmata are common.

8. There is usually a hemorrhagic tendency, as shown by ecchymoses, petechiæ, epistaxis, hæmoptysis, hæmatemesis, hæmaturia, and retinal hemorrhage.

9. Even in the absence of hæmaturia red blood-cells are often found in the urine; uric acid, urates, and oxalates are likewise common; the presence of albumin, tube-casts, and cylindroids is less common, and is usually intermittent. Glycosuria has been observed.

10. In many striking cases there has appeared to be morbid alteration of the thyroid gland.

11. The action of the heart is usually rapid, irregular, and easily disturbed. Palpitation is common, and in some cases intermittent tachycardia has been noticed. Hæmic and functional murmurs are not uncommon.

12. Among other symptoms and morbid associations observed are drug idiosyncrasies, urticaria, local œdema, angina pectoris and pseudo angina, hyperidrosis, asthma, hay fever, vertigo, migraine and other forms of headache, transient hemiopia and other visual disturbances, persistent mydriasis, astigmatism, myopia, hyperopia, menstrual irregularities, intermittent polyuria, rheumatism, chorea, epilepsy, neurasthenia, gastralgia, enteralgia, and membraneous enteritis, most of which are doubtless related as effects of a common cause, or as secondary results.

13. The development of pulmonary tuberculosis in some cases is probably a sequence of vascular and trophic disturbance in the lung.

Dr. H. A. West opened the discussion. He said that the vaso motor ataxia as described by Dr. Cohen would explain many phenomena observed by the general practitioner.

He said that it threw light on many of his own cases, which he had not previously understood. He considered the name exceedingly happy.

Dr. Carmona Y. Valle, of Venezuela, spoke of the importance of this subject to the proper understanding of many cases.

The Course, Results, and Complications of Erysipelas.—Dr. J. M. Anders, of Pennsylvania, read the paper.

The author gave elaborate statistics to prove that debilitating diseases predispose to the disease. Complications are common, but acute articular rheumatism is notice ably so. It is only exceeded in frequency by abscess as a complication.

Dr. J. Cronvan, of Buffalo, N. Y., reported a case of progressive locomotor ataxia which recovered after having an attack of erysipelas. He said that he had no doubt of the antagonism of erysipelas to certain other diseases.

Dr. Desaussure, of Charleston, N. C., asked if the abscesses were in the cellular tissue or were they in the lymphatic glands.

Dr. Anders closed the discussion.

SECTION IN LARYNGOLOGY AND RHINOLOGY.

First Day, Tuesday, September 5th.

E Fletcher Ingalls, M.D., of Chicago, President, in the Chair; English Secretary, T. Murray, M.D., of Washington, D.C; Spanish Secretary, Angel Gaviño, M.D., of City of Mexico.

The Chairman, in opening the section, commented upon the large amount of work which American laryngologists had been called upon to do at the various societies during the last few months, and upon the growth of this specialty in the United States, where there were now probably five hundred men fairly competent to treat nose and throat lesions. He believed that the building of the pan-American railroad would do much to develop certain of the southern countries as climatic resorts during the winter months.

Some Forms of Nasal Reflexes, with Report of Cases.—This was the title of a paper read by Dr. S. K. Merrick, of Baltimore, Md. He reviewed the history of nasal reflexes from the original suggestions of Voltolini down to the present time. The principal ones insisted upon by various writers were ocular disturbances, cough, cardiac and gastric manifestations, chorea, epilepsy, with various forms of headache.

McBride, of Edinburgh, has raised the question, "whether the cure of the local condition within the nose or the counter-irritant action of the application controls the reflex." Bosworth cites Bourchard, as quoted by Rualt (in support of the counter-irritant action), who cured a case of sciatica by cauterizing the lobe of the ear. The question of "moral effect" has very naturally been invoked to explain many of these cures, yet I believe, that while it may have some force, it is secondary in most cases, but may be, I think, the chief factor in a small per cent. of cases. The cure of intra-nasal disease is responsible, undoubtedly, for most of the successful results.

There are, then, three chief views held as to just how these reflexes are cured, viz.: 1, By cure of intra-nasal disease; 2, by counter-irritation; 3, by moral effect.

None of these is wholly true or entirely false, as the following cases verified:

Cases I. and II. showed that reflex eye troubles were relieved, not suddenly, but when the local intra-nasal condition was cured.

Case III.—a case of reflex headache and vertigo—was relieved by the counter irritant action of the cautery before the local disease of nose was favorably affected.

Case IV.—a case of sciatica, cured almost immediately on cauterization of the turbinates—was doubtless relieved by the "moral effect."

Reflex Epilepsy from Intra-nasal Disease was the title of a paper read by Dr. John O. Roe, of Rochester, N. Y. He concluded:

1. That epilepsy is a frequent result of peripheral irritation, which may be excited by a local disturbance affecting the peripheral nerves in any portion of the body. 2. That the susceptibility to peripheral irritation varies greatly in different persons, as is shown by the fact that irritation of the same kind or degree will not always cause the same amount of central disturbance, or may develop reflex disturbance of an entirely different character. 3. That the nose is frequently the seat of sufficient irritation to excite a variety of reflex manifestations; that these disturbances may be confined to the brain centres, manifested in epileptic convulsions, or they may be reflected to other peripheral organs, giving rise to manifestations of an entirely different character. 4. That in the nose there are well-defined sensitive areas, which are more readily stimulated by diseased conditions or by irritants introduced from without, than other portions of the nasal cavity. 5. That these areas are rendered inordinately sensitive to irritation by abnormal conditions in the nose, frequently independent of "neurotic habit." 6. That the undue susceptibility of these sensitive areas and the production of reflected disturbances—and especially those of epilepsy—is more often excited by intra-nasal pressure

than by any other local condition. 7. That the frequency with which epilepsy has been found to result from intra-nasal disease emphasizes the importance of interrogating the nose in all cases of epilepsy, and especially in those in which the cause is in any manner obscure.

Dr. Price Brown, of Toronto, Canada, had never seen true epilepsy result from intra nasal disease, but had seen the latter produce many neurotic symptoms which without relief to the exciting cause might have eventuated in epileptoid seizures. He narrated cases illustrative of eye trouble and hay fever, both permanently relieved by the removal of intra nasal pressure.

Dr. S. Solis-Cohen, of Philadelphia, opposed the extreme position taken by many rhinologists in this matter of nasal reflexes. He was inclined to doubt the existence solely of a neurotic substratum in these cases. Frequently there were evidences of instability in the circulatory mechanism. In such patients various peripheral excitants might cause epileptic disturbances. In such cases we should note carefully the condition of cardiac action. It was frequently disturbed by trivial causes, which in a healthy person would produce no effect. Furthermore, we frequently saw dermographism or factitious urticaria. This was brought out by tracing a probe over the tense skin, using light pressure, occasionally heavier pressure was necessary, and at times the subsequent application of cold over the tracings. After a while the design traced would stand out in bright red lines on the skin, or wheals would appear in the track of the probe.

Of course the question of "moral effect" does undoubtedly play an important part. There was again a class of cases with intra-nasal obstruction, producing a sense of pressure at the root of the nose, and also over the supra- and infra orbital regions. He had for this condition obtained good results from the use of quinine hydrobromate in dosage of from fifteen to thirty grains given four to six hours before the paroxysm of pain was due. He usually combined it with ergot to obviate unpleasant ear symptoms.

Dr. A. W. de Rhoaldes, of New Orleans, La., related the history of a case recently seen by him. A strong, buxom, country girl complained of slight deafness. There was nasal obstruction on the left side which was removed by the saw under cocaine anæsthesia. Very quickly there supervened supra-orbital headache, embarrassed respiration, paleness, and rapid and feeble pulse. A short expiratory cough came on and lasted three days, relief only resulting from the hypodermatic use of morphia, and then but partially. When the nostril was dressed the same symptoms recurred, lasting one week. A third dressing resulted likewise. The symptoms were at first thought to be due to the cocaine, considerable of which had been used during the operation, but none was used during the dressings, and that idea had to be given up. The nostril was left alone and complete healing resulted with relief of cough. He thought that where the so-called reflex effect is at a distance from the seat of lesion, the patients were generally of a distinctly neurotic character.

Dr. J. C. Cobb, of Boston, doubted the permanency of the cure in many of these cases. He had seen asthmatics relapse after a year of freedom from symptoms. There is often an effect produced which is a mixture of suggestion and true physiological relief.

Dr. Herrick added, in the discussion, that any drug which controlled the circulation will help these cases. Quinine undoubtedly has such an effect. This fact does not, however, negative the idea of reflex action.

Alumnol in Diseases of the Nose and Throat.—Dr. J. Mount Bleyer read a paper with this title. He gave a history of synthetic chemistry leading up to the use of many of the newer compounds. He had found alumnol antiseptic and astringent. The salts of aluminium, particularly the acetate and the aceto tartrate, had been long used. The new preparation was a white powder, soluble in cold water up to a strength of forty per cent. Solutions turned dark on exposure to the air, but this change of color did not seem to interfere with their efficiency. It precipitated albumin, but the precipitate was redissolved in an excess of the alumnol. He had used the remedy in epistaxis, for naso-pharyngeal hemorrhage after removal of adenoids, and for cleansing the nose and throat in various diseased conditions. In mucous plaques of the tongue it had been especially beneficial, proving superior to chromic acid.

Dr. Bleyer also exhibited an apparatus for detecting lost intubation tubes after operation. In one case recently seen, he had attempted to remove the tube but found it missing. He judged it was in the trachea, which was congenitally misshapen. There was no respiratory difficulty. The apparatus consisted of two parallel needles connected with an ordinary induction coil. These needles were thrust between the tracheal rings, and when they impinged upon the tube the electric circuit was closed and the alarm set off.

In discussing the matter of alumnol, Dr. D. Bryson Delavan, of New York City, said that its use had given him satisfaction, though he could not extol it as highly as the reader of the paper had done. One objection to its use was its cost, which in this country was four times as great as in Germany.

The Treatment of Certain Cases of Chronic Laryngitis was the title of a paper presented by Dr. Angel Garviño, of the City of Mexico. He alluded to those cases in which symptoms persisted though the objective examination revealed nothing abnormal, and where no tuberculosis would be suspected. He makes it a routine practice to examine the secretions of the larynx in every case, and when the mucous membrane is apparently normal he scrapes it and examines the scrapings. In both secretions and scrapings he has found the tubercle bacillus.

The regions thus operated upon have been the arytenoids, false cords, ventricular bands, and epiglottis.

For treatment, he recommended the use of intra-laryngeal injections of some oily menstruum impregnated with creosote, salol, or salicylate of bismuth. He also employed bichloride and zinc applications and gave creosote internally.

Second Day, Wednesday, September 5th—Morning Session.

Dr. A. W. de Rhoaldes, of New Orleans, read a paper on "An Improved Motor Dynamo and Electrical Cabinet for the Adaptation of the Street Current to Office Work."

The paper was a highly technical description of a new apparatus he had devised, and was illustrated with diagrams.

A Case of Elongation of the Epiglottis, Reduced by Operative Measures, was the title of a paper read by Dr. Price Brown, of Toronto, Canada. His patient was a young woman, aged twenty-three, with a tuberculous family history, and of a doubtful pulmonary condition herself. She had always been subject to frequent colds, always attended by hoarseness, and at times complete aphonia for several days. Great difficulty had been experienced in freeing the throat from mucus. What could be seen of the larynx appeared perfectly healthy. The epiglottis, however, which was long and narrow, with the end turned up, lay in a horizontal position, the whole of the free end pressing against the posterior wall of the pharynx, during ordinary respiration the air passing up and down through the open sides. At forcible respiration the epiglottis was varied slightly, seemingly enough to admit the passage of a knife-blade. The whole of the larynx was deeply seated and the vocal cords quite invisible. It required two and a quarter inches, from the right angle of a probe, to reach the tip of the epiglottis. As the patient was tractable, and a good view of the parts could be obtained, the case was considered a good one for operation, always using a fif-

teen per cent solution of cocaine. On March 1st, the first tentative touch with the galvano cautery was made. There was but slight reaction. On March 4th, during forcible breathing, the galvano-cautery blade was slipped between the epiglottis and post-pharyngeal wall. Then drawing the former forward so as to free the latter, the central portion and left side of the tip were cauterized. The operation was followed by limited sloughing and acute congestion of a mild type. There were two subsequent cauterizations, one on the 18th and the other on the 29th, and the patient was allowed to return home. Throughout the treatment albolene sprays were used to the throat several times a day.

The shortening of the epiglottis amounted to about one-fourth inch; and there was a perpetual niche of one-eighth inch. As there was, however, still a protruding corner, she came back for treatment on June 6th. The epiglottis had entirely healed, and there was no hoarseness. The remaining projections were twice touched with the galvano-cautery, at three-days intervals. In ten days the patient returned home. The sloughs had come away. The epiglottis was regular in outline and uniform in length. The cords could be seen for the first time.

The paper was discussed by Dr. E. Fletcher Ingalls, of Chicago, Ill.

The Easiest and Most Practical Means of Making Galvano-cauterization, Especially to Turbinate Hypertrophies.—The paper was read by Dr. Arthur G. Hobbs, of Atlanta, Ga., and consisted of a description of a small apparatus contained in a rosewood box eight inches long, four inches wide, and four inches deep, and is secured to the wall at a convenient distance from the operator's chair. The wires from an alternating current of fifty-two volts, the most generally used circuit, particularly in the medium and smaller-sized cities, are brought into the operating-room from the street and attached to one end of this little box. The conducting wires are similarly attached to the other end. The apparatus is now ready for the cautery operation and, more than this, it remains always and ever ready, in no way requiring the attention of the operator at any time. When the proper cautery point is attached, through the handle of the conducting wire, it is necessary only to turn a screw projecting from the nearer service, with the left hand, to use any number of volts, or to raise the cautery point to any degree of heat desired. In short, the little apparatus is simply a gauge for measuring out the exact quantity of electro motor force in the form of heat that may be needed for each particular case. The needle and a very narrow blade are the only cautery points ever used, and in all cases they are made to enter at the most prominent point of the hypertrophied tissue, penetrate to the bone when a white heat is reached, then withdrawn through the same puncture while the point is still hot. In no case is a wholesale destruction of mucous membrane ever produced by applying the flat surface of a blade to the protruding part.

Discussion by Dr. D. Bryson Delavan, of New York City.

Some of the Throat Conditions Observed in Gouty Subjects, was the title of a paper read by Dr. Solomon Solis-Cohen, of Philadelphia, of which the following is an abstract:

The term "gouty subjects," as used in this paper, applies not only to those who have had attacks of acute gout, or those who exhibit the characteristic deposits of chronic gout, but also to the much larger number who suffer with the varied and often obscure symptoms of "lithæmia," with a more or less constant tendency to excess of oxalates, phosphates, urates, and uric acid in the urine. In both classes of patients the upper air-passages are frequently affected; and while the gouty diathesis cannot be affirmed to be the sole cause of the local manifestations, it doubtless acts both as a predisposing and modifying influence. A large number of cases by different observers would have to be recorded in detail and carefully analyzed, before characteristic signs of throat-gout could be laid down. In most, if not in all, cases the condition is a chronic one, with a tendency to paroxysmal exacerbation. Inflammation is not a necessary feature of the case. In the author's experience the most prominent symptoms are sensory. Pain and abnormal sensations are referred to various areas apparently healthy.

Sometimes during a paroxysm these spots show a junction of dilated vessels. There may be a dusky discoloration of the mucous membrane, or an enlarged and reddened follicle. The epiglottis and arytenoid summits are in the larynx the favorite seats of abnormal sensation. In some instances we have a diffuse laryngitis with a "corned beef" appearance. In the pharynx the tonsillar and peri tonsillar structures and the angles of junction of the postero-lateral walls, have seemed to be most frequently affected. Luschka's tonsil may be reddened and tumefied when the rhino pharynx is invaded. Tubal catarrh and gouty changes in the drum membrane may cause subjective noises and peculiar sensations in the ear.

In young patients, the pharynx and larynx are often covered with a grayish tenacious mucus; in those past middle life the pharyngeal membrane is more often dry and pale, exhibiting a network of enlarged and tortuous vessels, or mottled with livid patches. Spasmodic obstruction to nasal respiration, with or without accompanying coryza, spasmodic choking in swallowing, and spasmodic obstruction to voice and to laryngeal or bronchial respiration, have been observed in a few cases. The diagnosis depends on urinalysis and associated symptoms of gout or lithemia. Local treatment must be of the mildest character, and is palliative only; for permanent relief of greater or less degree, dependence must be placed on dietetic, hygienic, and medicinal measures appropriate to the gouty state.

Discussion by Drs. J. E. Logan, of Kansas City, Mo., and John H. Lowman, of Cleveland, O.

Dr. D. Bryson Delavan, of New York, exhibited an electric lamp for giving illumination for office work in nose and throat disease.

(To be continued.)

Methyl Chloride in Neuralgic Affections.—Hertmann (*Therap. Monatsh.*, April, 1893) describes his experience with this remedy, which has been greatly used in France for affections of the nerves, etc. The substance in a liquid state is preserved in iron cylinders resembling siphons, and is allowed to escape from a distance of about half a metre from the affected part, which thereby is cooled to 23° C., and according to intensity of application more or less frozen to some depth. An intense reactive hyperæmia follows, frequently accompanied by blisters, in the course of a few hours. The author gives exact details of treatment in twenty nine cases, comprising fifteen patients with sciatica, five with intercostal neuralgia, the remaining suffering from lumbago, coccygodynia, chronic rheumatism, etc. Twice treatment failed, possibly in one instance—the first experiment—owing to insufficient application, and in the other in consequence of pressure of an abscess on the nerve. The majority were absolutely cured or more or less relieved by each operation, the number of sprayings in each patient averaging two to three. The whole of the affected area should be covered with the white powder which forms on the skin, one spraying often sufficing to produce a cure. The objections hitherto urged are the possibility of erysipelas, lymphangitis, and even gangrene; but the author, among seventy administrations, observed no evil results beyond occasional blistering, not severe in character, and he considers the probability of more serious troubles to be remote, and not more likely to occur than with sinapisms, etc. In order to guard against gangrene, patients suffering from albuminuria and glycosuria might be excluded from this treatment. The author considers that the treatment involves less expenditure of time and money than either faradization or massage, a filled cylinder being sufficient for four to eight sprayings.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, May 22, 1893.

WILLIAM STEVENS, M.D., PRESIDENT, IN THE CHAIR.

Resolutions on the Death of Dr. Lee.—In the absence of Dr. Thomas, chairman of the committee, DR. ROOSA read the resolutions on the death of the President, Dr. Charles Carroll Lee.

The Faradic Current in Gynecology, with Description of Improved Apparatus.—DR. AUGUSTIN H. GOELET read the first paper of the evening, with the above title, and exhibited apparatus.

The apparatus was one which he had presented at the meeting of the American Therapeutic Association in 1891, with improvements. Since that date it had been put upon the market by different dealers. It was adapted not only to gynecology, but to all cases in which the induced current was indicated. In constructing the instrument he had started with certain distinct purposes in view. The long, fine wire gave a current of greater electro motor force and less volume; the short, thick wire gave greater volume and less electro motor force. The instrument presented was so arranged that by switch action a greater or less length of wire could be employed. The long, fine wire, with its high tension and inappreciable volume, was sedative in its influence, but the current had to be appreciable, else it would have no therapeutic effect. It should not, however, be strong enough to be painful. Then the interruptions had to be even in order to produce a sedative effect—three hundred to three hundred and fifty per second in gynecological work. When the interruptions exceeded this the current was inappreciable and inefficient, at least in the vagina. It was passed for sedation ten to twenty minutes, being gradually increased the first four or five to the desired point. Four or five Leclanché cells were used, and the instrument contained a rheostat. He employed the bipolar method in uterine and vaginal treatment, and the relief from pain due to uterine congestion and various other conditions was prompt and efficient. The services of a specialist were not required in treatment by this means. Electrodes were exhibited.

MR. A. E. KENNELLY, of the Edison Laboratory, was invited to make some remarks, and spoke of the instrument, from the electrical, and not from the therapeutical, aspect. He said, with regard to the number of interruptions, it was best to use the natural tone of the instrument, and not to force the rapidity of interruptions beyond that point if one would not break up and cause irregularity of current quality. Speaking of painful or sedative influence, he said that, on making, the current partook of the character of a long wave; and on breaking, of the character of a chop or sharp pitch, the latter being the more unpleasant or painful. He suggested that the more sedative influence of the long, fine wire was due probably to the more uniform and wave-like character of the current, to a wiping out of the jerky, spasmodic elements which were more or less prominent in the short wire.

DR. MARGARET A. CLEAVES did not know of a better nutritive agent in anæmic sensitive patients with pelvic complaints than the abdomino vaginal faradic current. She admired Mr. Kennelly's explanation of the greater sedative effect of the long, fine wire with rapid vibrations, namely, the absorption of the sharp peak of break by the long curve.

DR. A. D ROCKWELL further emphasized the point made in the paper as to the importance of differentiating between the current of tension and that of quantity. Few seemed to fully appreciate their difference physiologically and therapeutically. The current of tension applied to the skin might be very painful, whereas, if applied to the mucous membrane it might be scarcely appreciable; the current of quantity applied to the skin might produce little effect, applied to the mucous membrane it might produce a profound effect. Doctors had lost patients by failing to observe this simple but important point.

DR. GOELET in closing called attention to the difference between connecting the cells in multiple, as was usually done, and in series, and said that two of the four cells in his battery were in multiple, two in series.

Brain of a Pathological Giant.—DR. CHARLES L. DANA presented a brain which he spoke of as the brain of a pathological giant, it being that of the Indian who had died very recently in Bellevue Hospital. The man had been reported to be 8 feet high, and to weigh 350 pounds, but his actual height was 6 feet 7 inches, his weight 300 pounds. He died suddenly, the immediate cause not being known. The brain was a little above the average size, weighing 53 ounces. There was great enlargement of the pituitary gland. Bodily measurements showed the case to be one of acromegaly, and not one of great size from normal growth. This fact was an interesting one, inasmuch as increase in size of the pituitary gland was usually present in acromegaly. It was probable that many cases being exhibited throughout the country as giants, were cases of acromegaly with enlarged pituitary gland.

Note on the Apoplectic Pulse and its Treatment.—DR. CHARLES L. DANA then proceeded to read a brief paper on this subject. The class of cases of apoplexy to which he wished to call attention did not include the most common form, in which the arteries were tortuous and hard, but with pulse of high arterial tension, but certain exceptional ones in which the blood vessels, though tortuous, had become much dilated, non-resilient, the pulse full and of low tension. These patients did not show evidence of much kidney or cardiac disease, although the heart was likely to be moderately dilated and hypertrophied. The apopletic attack was apt to come on suddenly, without warning, during a time of comparatively good health, and was apt to be followed by mental disturbance, vertigo, general weakness of mind and of body out of all proportion to the paralysis or symptoms attributable directly to the seat of hemorrhage. This state, however, varied much in different cases. Improvement took place gradually, but might be interrupted by another attack.

The author had studied the pulse in four such cases, and taken sphygmographic tracings before, during, and after treatment, and had found quite a different condition from that present in ordinary apoplexy with atheromatous arterial walls. The most marked feature was attributable to the want of resiliency in the arteries, the relatively low tension, and the abnormal peripheral resistance. The tracing showed the total area of wave small, the predicrotic notch marked, the dicrotic deep.

The essential trouble in such cases lay in the periphery of the circulatory system, in the capillaries, and was caused by diathetic conditions, as rheumatism, gout, lithæmia, excessive amount of carbonic acid in the blood, etc. The treatment should be based on this view of the cause, and would consist in regulation of the diet, the use of tincture of iron, salicylates, and like drugs, and in this particular class of cases of apoplexy much relief from symptoms attributable to a badly nourished brain often followed the use of cardiac tonics, as digitalis and strophanthus.

In conclusion Dr. Dana expressed the opinion that the sphygmograph was of great value to one who by experience had learned to interpret his special instrument.

Capillary Resistance and the Dicrotic Notch.—DR. ANDREW H. SMITH thought the dependence of the depth of the dicrotic notch upon the capillary resistance could be proven by a simple experiment. Place a ligature about the wrist just sufficiently tight to measurably interfere with the return circulation, and it would be found to exaggerate the dicrotic notch. Give the patient oxygen and the dicrotic notch would become less prominent, showing apparently that when the circulation was arterialized the peripheral resistance was less.

The Condition of the Arteries and Pulse of Great Significance.—Dr. William H. Thomson had long regarded the study of the arteries and pulse as of much diagnostic value. A thorough study of the arterial system should always precede deductions based on the pulse. He had one case at present under observation in which the clinical symptoms were like those described by Dr. Dana, and the pulse was similar. The patient had had several attacks of apoplexy, had a number of tortuous and dilated arteries, and a pulse of low tension. As the author had stated, thickened and tortuous arteries in ordinary apoplexy gave a pulse of high tension. The tracing shown by Dr. Dana was somewhat suggestive of an anacrotic pulse, but the deep dicrotic notch was unquestionably due to a pronounced fall in the arterial current owing to the state of the artery. The practical deduction to be drawn from the valuable paper was, that the arterial change was secondary to trouble in the capillaries and not in the arterioles.

Dr. Mary Putnam-Jacobi thought the special sphygmograph which Dr. Dana had used and praised was faulty in that it was too sensitive and made a tracing, the parts of which were contradictory to the normal tracing produced by the pulse wave.

Dr. Dana said, in closing, that if the tracing shown was contradictory to previous theories, which he did not admit, it was so much the worse for the theories, for the same instrument had shown, repeatedly, markings which were in accord with the pulse tension when varied by the administration at one time of nitro-glycerine, at another of digitalis, etc. The markings were in accord, too, with the studies of the pulse by Broadbent and others.

Dietetics in Diseases of the Stomach.—Dr. Max Einhorn was to have read a paper on this subject, but the limited time permitted of the reading of only a small portion. His subject was divided into three parts: 1, General rules of dietetics in diseases of the stomach; 2, dietetics in acute diseases of the stomach; 3, dietetics in chronic diseases of the stomach.

In his remarks upon chronic diseases of the stomach, the author said the emaciation was due to taking too little food rather than to poisoning of the blood. By appealing to vicarious digestion sufficient food might be given to keep up health and permit the stomach to rest, to receive treatment, and to regain its healthful state. A table of the digestibility of food articles was given. The author's time elapsed while he was speaking of malignant diseases, cicatricial obstruction, etc.

THE PRACTITIONERS' SOCIETY OF NEW YORK.

Stated Meeting, April 7, 1893.

Charles L. Dana, President, in the Chair.

Case of Myositis Ossificans.—Dr. V. P. Gibney presented the patient.

Dr. Robert Abbe had seen a case, about three years ago, in a man, of large bony plaques in the thigh, involving the quadriceps muscle. No treatment.

Cases of Appendical Abscess of Unusual Germ Origin.—Dr. Robert F. Weir presented the specimens, with histories. He stated that it was well known that a number of other germs than the staphylococcus and streptococcus pyogenes produced purulent inflammation. These were the typhoid bacillus, bacillus prodigiosus, bacillus acidi lactici, micrococcus tenuis, micrococcus tetragenus, and particularly the diplococcus pneumoniæ and the bacillus coli commune. Of these latter two the diplococcus often is present in aural and cerebral diseases of otitic origin, and the bacillus coli commune affects seriously and disastrously the peritoneal surfaces in rapidly advancing septic inflammation. Both of these germs, however, are found wide of the chest and abdomen as the cause of purulent deposits. Besides these we have the saprophytic germs, as the proteus vulgaris, inerabilis and Zenkeri as pus generators. In addition to this, as adding to the interest on this subject, we have recently learned that an innocent germ added to a phlogistic germ augments often the infection or toxicity. He had in two cases been able to detect irregular germ infection by cultures from the pus obtained from abscesses resulting from appendical perforation. In one case the germ found was the bacillus coli commune.

The history of the case is very briefly this:

First attack: Vomiting; temperature, 101½° F.; marked iliac tenderness. Seen by me thirty six hours after. Temperature, 99½° F.; pulse, 128; respiration, 30, shallow; face of bad color; pain, slight; tympanites, marked; tenderness marked at Schüller's line, not much at McBurney's point. Patient cheerful and talkative. Laparotomy advised and performed. Abscess of ʒ iij. turbid pus; appendix, perforated and gangrenous near attachment, removed. Abscess also found running into depths of pelvis; cleaned out and packed. Prognosis unfavorable, as septic conditions were strongly marked. Patient succumbed within twenty-four hours. Autopsy showed general suppurative peritonitis. Bacteriological examination of fluid removed showed nearly pure cultures of the bacillus coli commune.

The second case was a child, eight years of age. Laparotomy third day. Appendix perforated and localized abscess of ʒ jss. of pus; appendix removed. Bacteriological examination of fluid showed diplococci pneumoniæ in nearly pure cultures. Recovery prompt. No cough present, nor could infection be traced.

In private practice it has been not easy to be always ready with a sterilized tube for the purpose of promptly receiving a fluid for a culture test; but lately, through the kindness of Dr. Ferguson, the pathologist of the New York Hospital, a number of small test-tubes with agar agar in them, and with a wire embedded in the cotton stopper, all duly sterilized, are kept ready in a small pocket book, such as is used to put tablet bottles in. These are easily carried in the pocket or operating bag, and will last several weeks, only spoiling by the drying of the culture medium.

Dr. J. D. Bryant also presented an appendix removed from a case three weeks ago. The patient had been under his observation at the hospital for hip-joint disease a number of years, and on one occasion he had removed three inches of the upper portion of the femur, including the head. The patient recovered from this operation but suddenly symptoms of appendicitis developed for which Dr. Bryant operated after forty eight hours. The symptoms were not severe; the pulse was 86, the temperature normal, the respirations about normal, abdominal distention very slight, so that he really felt some doubt whether there was involvement of the appendix. Yet at the operation he found that the appendix had sloughed through and general fecal infiltration had taken place, extending into the pelvic cavity and upward alongside the colon, there having been no effort whatever at limitation. Another experience in this case which was quite new to him was the fact that, owing to what might be spoken of as the rotten condition of the appendix, the first ligature cut through, and he had to apply a larger one, drawn less tightly, on the short stump. This patient, like all others seen by him in whom there was free escape of fecal matter into the pelvic cavity, died. The cause of the appendicitis was found to have been a fecal concretion.

Pathogenic Properties of the Bacillus Coli Commune.—Dr. Herman M. Biggs had last year studied a case of acute purulent pachymeningitis following typhoid fever, the attack of typhoid fever having been a severe one, convalescence having been protracted. About the seventh or eighth week the meningitis developed suddenly and caused death. He found in the lower portion of the small intestine a number of old ulcers that had not healed. Bacteriological examination of the exudate of the pia mater revealed pure cultures of the bacillus coli commune. He thought that observations made the last

two years had shown very clearly that under certain conditions the bacillus coli commune possessed very virulent pathogenic properties. Why at one time it was virulent and at other times not, had not been determined. He had seen two or three cases in which the clinical history was that of Asiatic cholera and the diagnosis had been made of that disease. The autopsy showed the anatomical lesions commonly found in Asiatic cholera, yet bacteriological examination of the intestinal discharges and contents revealed simply the bacillus coli commune.

The Treatment of Sterility, with Report of Cases.—Dr. William M. Polk read the paper.

Patency of the Ureter or Vas Deferens after Division.—Dr. R. F. Weir said he had been much interested in Dr. Polk's case of pregnancy after excision of the Fallopian tubes, as it gave the surgeon hope of patency being re established in the vas deferens or ureter should these by accident or otherwise be divided. In the case of the vas deferens there had been no positive proof of patency being re established through the cicatrix after accidental division in hernial operation, for the reason that the continuance of virility might be explained by function of the other testicle. In the case of the ureter, however, Kuster had had a case of division of this canal, and the re establishment of patency had been proven by observing through the cystoscope urine discharged from that side into the bladder.

Dr. Thompson supposed that in Dr. Polk's first case there must have been a Graafian follicle nearly ripe very close to the divided end of the tube in explanation of pregnancy. He also mentioned the fact that in the report of Lieutenant Peary's expedition to Greenland it was said to be the custom among certain of the Greenlanders for the men to exchange wives when there was no issue, and frequently the women became pregnant after the exchange, showing that there had simply been incompatibility.

Dr. Polk remarked that it had been the custom among Scottish clans for the chief to take another wife if there were no issue within a year.

Stated Meeting, May 5, 1893.

Charles L. Dana, M.D., President, in the Chair.

Aneurism of the Aorta in a Boy, aged Eighteen.—Dr. A. A. Smith presented a case of aortic aneurism which was almost unique in the early age at which it had developed. The lad, eighteen years of age, but having a more youthful appearance, had entered Bellevue Hospital complaining of beating of his heart. He gave a history of having had an attack of rheumatism a year ago, but Dr. Smith would judge from the size of his heart and the lesions apparent that he had had rheumatism before that date. The patient claimed to be pretty comfortable except for shortness of breath and a constant "cold." Although there was a cardiac lesion, that was not the point of chief interest to the pathologist, but rather an aneurism which involved the ascending and transverse portions of the arch of the aorta. Over this region there was a very marked thrill, decided dulness over quite a large surface, a double murmur, the thrill felt in the carotids. There was no history of trauma. Dr. Smith said he did not remember ever having seen an aneurism in one so young, especially of the aorta, nor had he seen the record of a case without trauma after the brief search which he had made of the literature.

Dr. Peabody, Dr. Biggs, and the other gentlemen present said they had not seen an aneurism of the aorta in a subject so young Dr. Peabody had seen two young men, aged nineteen, who had died of rupture of a miliary aneurism of the brain, but in both of them there was congenital narrowing of the aorta and larger vessels, together with arterial sclerosis, which usually accompanied that condition.

Dr. Abbe inquired whether it might possibly be a pulsating sarcoma in which a bruit was sometimes heard, but Dr. McBurney and Dr. Smith said the transmission of the bruit and thrill into the vessels of the neck was against that view.

Cases Showing Excellent Results of Skin grafting.—Dr. Charles McBurney presented two patients on whom he had employed Thiersch's method of skin-grafting for injuries of the hand and wrist, with most excellent results. The more recent case was that of a young man who had had his hand crushed on March 22d, while coupling cars, the laceration being so extensive that he was able to save only the thumb and forefinger. Even then there was no skin for covering, and one or more deep valleys existed due to absence of flesh. Skin-grafts were applied over the uncovered parts with perfect satisfaction. An interesting feature was the wonderful rapidity with which tissue had been reproduced beneath, filling up the hollows. There was no form of surgical dressing, as by rubber tissue or other means, which would produce such a result.

The second case showed the later results of skin-grafting. It was that of the boy whom he had presented several months ago, and who had sustained a very serious lacerating wound of the wrist by broken glass. The median and ulnar nerves, both arteries, and all the anterior tendons except that of the flexor carpi radialis were entirely divided, no injury having been done the posterior part of the wrist. The divided parts were sutured, the raw surfaces covered with skin-grafts, and there was a good result except for a dense cicatrix at one point which drew the hand to one side. The contraction had since been overcome, the influence of massage in this regard having been marked, and to-day the use of the hand and sensation were apparently normal.

Dr. Beverley Robinson could recall at least one case which had come under his observation, after the surgeon had done an operation for an injury and massage had seemed to do harm rather than good, increasing the nervous irritability at the site of the cicatrix.

Dr. McBurney thought that simple cicatricial tissue was very much benefited by massage, but where the cicatrix was keloid in character he thought it was detrimental.

Cerebro-Spinal Meningitis, with Hæmoglobinuria.—Dr. Herman M. Biggs presented a specimen of urine from a typical case of cerebro spinal meningitis. During the last twenty-four hours the urine had been passed in large quantities, was of reddish hue, as if mixed with blood, and on examination was found to contain some red blood-corpuscles, but not a large number, not enough to cause the deep red color of the fluid. It was a hæmoglobinuria rather than a hæmaturia. There was also considerable sugar in the urine. While glycosuria, hæmoglobinuria, and hæmaturia were known sometimes to occur in cerebro spinal meningitis, yet they were not frequent complications.

Being asked the history of the case, Dr. Biggs said that the morning of the day the man was taken ill he had worked, and at noon began to feel unwell, took a dose of Rochelle salt, rapidly grew worse, was transported to the hospital at midnight, when he had delirium and convulsive movements of the left side. The temperature was 104° F. He had been vomiting during the evening, and this continued more or less during the night. There was then rigidity in the back of the neck, contraction of the pupils, and delirium calling for restraint. The following day the head was drawn far back, convulsive movements still continued, more upon the left than upon the right side, the temperature somewhat more than 105° F. At night he began passing the discolored urine. Pulse, 140; respirations, 36 to 40. There was some twitching in the face and hands.

The President said he then had a case of cerebro-spinal meningitis under observation, and the patient was passing bloody stools. The case was running the typical course of cerebro-spinal meningitis, and typhoid fever had been safely, he thought, excluded. There was the sunken abdomen, stiff neck, delirium, hyperæsthesia, fever, etc.

A Case of Brachycardia.—Dr. W. Gilman Thompson sent the patient, with the following history, arriving later himself:

The patient who presents himself for examination is of interest on account of the remarkably slow, full pulse which he has had for some months, the average at present being between 28 and 20. He is a German, seventy-four years of age, of good physique. His general health has been excellent, and his history up to within a short period is unimportant. For the past four years he has had occasional attacks of syncope, but none of them were severe. About two months ago he had slight rheumatic pains in the left knee and shoulder, and some swelling of the feet. Thirty-eight days ago he entered the Presbyterian Hospital to seek relief from the latter symptom. During all this time the pulse has never risen above 36, even after exercise, eating, etc. I have counted it at 22, and it is usually just below 30. It is always full, strong, and regular. It does not become slower during sleep. The heart is slightly enlarged, the impulse beat being three-quarters of an inch outside of the nipple line. The sounds are distinct, but the chest-wall is very thick. No murmurs have been discovered at any time. The vessel-walls are only moderately thickened. Since the patient entered the hospital there has been no vertigo and no dyspnœa. His color is always good. The appetite and digestion are normal. There is never any disproportion between the number of radial and cardiac pulsations. There was at first a trace of albumin discovered in the urine, which later disappeared, and there is now again about five per cent. bulk of albumin, with granular, hyaline, and waxy casts. The œdema of the legs has nearly disappeared.

The man has regular habits, and has not abused alcohol or tobacco. His treatment has been merely tonic.

I have seen one other case which resembled the present one in infrequency of pulse-rate, but there was present decided mitral and aortic valvular lesion. In this instance the pulse frequently fell to 18, 22, and 24.

In an exhaustive article read by Dr. Prentiss, of Washington, before the Association of American Physicians,[1] he reported three cases of remarkably slow pulse, and reviewed the literature of the ninety one others which had been reported up to date. In one of these the pulse rate was 3 for several hours, and in another 4, afterward becoming somewhat more rapid. He reviews the etiological factors under the headings of diseases or injuries of the vagus or cardiac sympathetic nerves or their centres, of the intra-cardiac ganglia, disease of the heart muscle, and poisons.

Dr. A. A. Smith and Dr. McBurney remarked that the radial pulse was even more than usually full, and if they were to judge by that alone they would not suppose there was fatty degeneration of the heart.

Dr. Kinnicutt had never seen a case in which the pulse was so slow without there having been more or less cerebral disturbance. He remembered one case in which the pulse was 30, and when it fell lower than that the man would have an epileptiform attack.

The President said that he was once called in consultation, in the case of a man over sixty years of age, whose pulse then was from 6 to 10 per minute. This slowness of the pulse had occurred at intervals for some weeks. He would also have attacks of syncope which Dr. Dana thought to be due to anæmia of the brain. The patient finally died in one of the attacks. The diagnosis was fatty degeneration of the heart.

Malignant Endocarditis—Large Polypus.—Dr. Herman M. Biggs presented a heart with a large polypoid mass on the mitral valve. The patient, a man, was admitted to his ward about six weeks ago, apparently suffering from acute lobar pneumonia. The pneumonic process cleared up somewhat, the temperature went down, but rose again after two days, and continued rather high for three or four weeks.

[1] Transactions of the Association of American Physicians, vol iv, 1889, p. 120.

There were râles all over both lungs, a good deal of expectoration, and the diagnosis of probable general miliary tuberculosis was made. There was nothing to call attention to the heart. The patient failed and died with symptoms of pulmonary œdema. At the autopsy he found extensive miliary tuberculosis of both lungs and a small patch of old tubercular process at both apices. The spleen was very large, very soft, and contained two large infarctions, evidently from septic embolism. There were also several infarctions in the kidneys. The fact of interest was that on one of the mitral leaflets there was a polypoid mass which filled at least two-thirds of the mitral orifice. There was also a large fibrinous deposit on one aortic cusp. No petechial hemorrhages were noticed on the skin during life, but two groups of three or four small hemorrhages were observed on the side at autopsy. There having been no symptoms to call special attention to the heart during life, it was a great surprise to find so large a polypus of the mitral valve at autopsy. He had seen only one other case of so large a mass on the valve, it having occurred in a patient in the service of Dr. Janeway some years ago. Death took place in that instance suddenly, and Dr. Janeway made the diagnosis (on what ground he did not know) of polypoid growth on the right auricle, with detachment and plugging up of the mitral orifice, and all present were astonished when just that condition was found at autopsy.

Dr. Roosevelt said he had once presented at the Pathological Society, with other specimens, one of large polypus of the mitral valve of recent formation, an older and a larger piece having become detached during life and caused complete obstruction of the circulation in the lower extremities. The clot was large enough to obstruct both iliac vessels.

At the same meeting he had presented the heart of a man who had entered Roosevelt Hospital in 1881, was there a number of months, went out, and came back again after three or four years, with the same symptoms and died. When he entered he was a little less than twenty years of age, gave a history of rheumatism, and on examination was found to have a very loud, harsh, systolic murmur at the right of the sternum in the second and third interspaces. There was a thrill over the same neighborhood and lower. There was a systolic and a diastolic murmur at the apex, which was situated in the sixth interspace in the axillary line. There was no pain, no distinct signs of pressure on a bronchus. The autopsy showed great general cardiac dilatation, aortic insufficiency and no aortic stenosis, some mitral insufficient and slight mitral stenosis. The thrill and loud murmur had covered exactly the locality of the dilated right auricle which lay against the chest-wall. The case was sufficiently like that of the boy presented by Dr. Smith to be worthy of mention in that connection.

Acquired Immunity.—Dr. Roosevelt made some remarks upon this subject.

Dr. Biggs thought that in its ultimate analysis the theory advanced by Dr. Roosevelt amounted to the substitution of a vital for, according to the old idea, a chemical substance in the body in explanation of the immunity given by one attack of certain diseases. But it seemed to him there were certain facts opposed to this new theory as well. For instance, it was known that the susceptibility of individuals to all sorts of contagion varied at different times. Moreover, the susceptibility could be increased by the introduction of various chemical substances. It was a question of relation between individual susceptibility at the time and dose of the virus. If Dr. Roosevelt's theory were supposed to hold, that after one attack the old and susceptible cells were replaced by new ones which were not susceptible, following the law of survival of the fittest, he thought there would not be varying susceptibility at different times depending upon the presence of certain chemical substances. Again, he could hardly see how the theory could be reconciled to the fact that chemical substances might them

selves produce immunity, as in inoculations against tetanus and hydrophobia. There was no evidence that such substances when introduced into the system destroyed any of the cells.

Dr. Peabody said he could add nothing to the discussion, for while the subject was an interesting one, it was yet too transcendental to form a basis for practical conclusions.

Dr. Roosevelt, in concluding the discourse, said that the theory which he had advanced, like others, was not sufficiently tangible to admit of positive proof, but he thought it was unlike the others in that it could not be disproven. The arguments which he had advanced showed that the ground on which the chemical theory had been based was not tenable, and this was an advantage, as that theory had been taken as the starting-point for investigations which were intended to lead to practical results.

Trional as a Hypnotic.—Dr. F. P. Kinnicutt gave the results of experience with this new agent.

Dr. Peabody said that during a period of three months they had used trional in the New York Hospital in a large number of cases, and while they had found the effects which it produced about the same as Dr. Kinnicutt had described, still he and the house-staff had not thought it superior to the older hypnotic, sulphonal. The latter, when given in hot milk, produced its effects in fifteen minutes, and trional could do no better. The latter, however, was also efficient in gramme doses and was quite unobjectionable.

Dr. W. Gilman Thompson said trional had been used in twenty or thirty cases at the Presbyterian Hospital and the impression which he had obtained of its usefulness was like Dr. Kinnicutt's. It had acted very promptly in a case of alcoholic gastritis verging on delirium tremens. He had observed no depressing effects from it, but when thirty grains had been given as a commencing dose the drowsiness had sometimes lasted until noon or in the afternoon of the next day. It had acted in most cases, if it acted at all, very promptly, certainly within half an hour, often within fifteen minutes. He had never observed the vertigo and depression which sometimes followed the use of sulphonal. It could be taken easily dry on the tongue.

Correspondence.

DOCTORS IN POLITICS.

To the Editor of the Medical Record.

Sir: Medical journals constantly lament the indifference of members of the profession to political matters, and lack of representation in municipal and legislative bodies. As a necessary result, the doctor and the doctor's interests, and the community in which he is an important factor, all suffer.

I do not think this indifference prevails in Maryland, and know it does not in old Anne Arundel County. Many years ago I saw the most powerful political organization broken and defeated by a combination of two doctors, in a district where there was apparently, in the opinion of all the knowing ones, no chance for a fight. After the victory, an old negro man expressed the universal sentiment of the people, including the politicians, "dem doctors am de debbil." It is needless to state that at the next election the politicians did not fight the doctors, but were genial, kind, clever, took them by the hand, conferred with them in making the ticket, and finally sent one of them to the legislature, where he could vote upon bills relating to his professional interests and see the vote counted.

As early in the history of the country as 1655, religious and political strife culminated in a bloody war at the mouth of the Severn River, and among the many remarkable characters participating in the stirring events was a member of the medical profession, Dr. Luke Barber. From that period to the present, nearly two and a half centuries, every generation, every war, assembly, or convention where the "rights" of the people were in jeopardy, I think the records of Maryland—not assertion or tradition—will show that the "doctor" was there, and that he did his duty.

J. M. Worthington, M.D.

Annapolis, Md.

CHARCOT.

To the Editor of the Medical Record.

Sir: There are two persons here who were waiting till Professor Charcot got back from his vacation in order to consult him; one was from California, the other from Dresden. This I mention to show the world-wide extent of the lamented physician's reputation. Perhaps no medical man in modern times had become so extensively known among the laity, and so highly honored by the members of his profession. Whatever there is or was to be gained in the way of reputation, position, fortune, and scientific achievement he had done. French medical science was particularly indebted to him, for he not only created for it a new and most important branch of practical knowledge, but kept it fully abreast of German, English, and American work. While France fell in recent years so lamentably in the rear as regards surgery and many departments of medicine, the neurological school has been constantly turning out industrious, fruitful, and original workers.

Knowing this I have been reading with much interest the comments of the Parisian press on the life of the man who did so much for the glory of France. The result has been to create some doubt as to whether Charcot was really much of a man after all. Most of the papers give a half-column perfunctory notice, containing a sketch of his life, and a very incomplete account of his work. *Figaro* alone takes the trouble to employ a competent writer, and devotes to him nearly a column, which is quite as critical as it is laudatory. Charcot, according to M. Gautier, was a great scientist whose word was law on two continents; but, perhaps, he adds, he was more esteemed out of France than in it. A writer in *Gaulois* seems to think that a Dr. Blanche, who died on the same day, and of whom I confess I had never heard, was quite as great a man in his way.

Charcot, says *Figaro*, was accused, not perhaps without some truth, with an absorbing egotism and an intense passion for *réclame*. He aimed to be continually posed before the public. This is a side of his character which, if true, was not noticeable to us who judged him by his writings alone. His French eulogists, if they may be called so, seem to think that Charcot's greatest work was in the direction of hypnotism, and that when the world has forgotten all else that he did it will still remember that he first cleared up the mysteries of animal magnetism, mesmerism, and similar *diableries!* This is the astonishing conclusion reached by a writer in the leading journal of Paris. As a matter of fact, Charcot contributed little that was new or valuable in this department of research. On the other hand, his name is inseparably connected with researches upon the pathology of apoplexy, asthma, tabes dorsalis, paralysis agitans, various scleroses, hysteria, aphasia, and many other forms of disease. Perhaps his greatest work, after all, consisted in utilizing constantly and intelligently the enormous opportunities offered at the great poor-house of Salpêtrière.

Charcot married a rich widow, and her fortune enabled him from the first to pursue his scientific work without the cares incidental to working for a practice and a living. He cared much less for his private practice than for his scientific work, and he was said to care more for interesting cases than lucrative patients. He was fond of music, painting, and the arts. Charcot was, according to his biographers, a "taciturn." He was not approachable or companionable in his ordinary professional relations. He preserved with his pupils the attitude of a master. This system of pupil and master, which Charcot

illustrated so well, had its good features and produced excellent results, for by it a wise control was exercised over the work of the younger neurologists. Their labors were concentrated upon certain fields, and rich opportunities for study were furnished to younger men.

On the other hand, the masterful temper of Charcot prevented anyone in Paris from becoming but a secondary light. Now that the master is dead, there are no successors. Paris has a number of able "pupils" in neurology, but no one who has secured anything like the reputation which Charcot held.

There is already talk of Professor M. Raymond filling his place. Raymond has written one good book and one very bad one. He is hardly looked upon as a neurologist by the profession in general. Charcot was a man of large physique and striking presence. He had the stooping shoulders and something of the physiognomy of Napoleon.

He had an attack of vertigo during one of his Monday lectures and started soon after on a vacation in company with Debove and Dejerine. On the night before his death he sat up chatting with his companions and making plans for the morrow. He then went to his room. Next morning he was found dead in his bed. On the table was an unfinished letter to his son. His last lines were, "I will finish to-morrow; I will now go to rest," and so he went to his last rest. C. L. DANA, M.D.

LUCERNE, August 18, 1893.

ABDOMINAL HYSTERECTOMY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: My attention has just been directed to the letter of Dr. J. S. Pyle, of Canton, O., in which he claims priority in the use of clamps in abdominal hysterectomy. As I have already informed Dr. Pyle, my first operation by my method was made in a public clinic in this city in July or August, 1890. If the doctor can say that he had even thought of the procedure at the time my operation was made, I am perfectly willing to ascribe to him the credit of originating what I have termed "Lanphear's method;" if he cannot, then I must claim whatever honor there is in a method that can, at least, be recommended only in cases where total extirpation by the use of ligatures cannot be followed, for the reasons set forth in my paper published in the RECORD of July 1, 1893; a method which, I must confess, has attracted more attention than its merits deserve. Very truly yours,

EMORY LANPHEAR, M.D.

KANSAS CITY, Mo., August 19, 1893.

PURULENT OPHTHALMIA—IMPERFORATE HYMEN—A QUESTION OF MICROBES.

TO THE EDITOR OF THE MEDICAL RECORD

SIR: Dr. Alfred Hinde, in the RECORD of July 15th, this year, in an article entitled "Purulent Ophthalmia, from the Stand-point of its Specific Microbic Cause," makes assertions that I do not think can be substantiated. As almost the whole article is dependent on the first paragraph, I will only notice that. He says: "That all cases of purulent conjunctivitis are of microbic origin and due to Neisser's gonococcus." My principal reason for disputing the above paragraph is that I have treated purulent conjunctivitis that did not so originate. You may say that is only the assertion of one observer. I know it well enough to be able to go on the witness stand and swear to my conclusions. I had binocular purulent conjunctivitis last summer myself. It originated from an irritant, driving through hot alkali dust on the prairie. I saw a case only a few weeks since that was not of gonorrhœal origin. The case happened in the family of my nearest neighbor, the subject a child, nine months of age, and as I am personally acquainted with all the family surroundings, and from the peculiar isolating circumstances surrounding the child before the disease, am equally as positive as in my own case. In this case the disease was monocular. I will readily admit that purulent conjunctivitis is oftenest caused by gonorrhœal infection, but will never admit that all cases are so caused. I do not admit, though, that the gonococcus is ever the cause of conjunctivitis, nor of urethritis. Some of our most eminent physicians claim to find true gonorrhœa without the gonococcus. I would like to have that phenomenon explained, if phenomenon it is, else I cannot accept the microbe theory of gonorrhœa.

It seems that we are going wild over microbes. Though only an humble country practitioner, and fully realizing the seeming egotism in the prediction, yet I do predict that in ten years from to day we will laugh at our folly in ascribing diseases to microbes.

Do not understand me to say I do not believe in microbes. We must believe in what we see. I believe the bacillus tuberculosis is as much of a scavenger as the vulture

Too many of us talk in a positive way about "inflammation," "bacterial infection," etc., when we do not know what we are talking about; yet some of these very men are teachers.

On one of the hottest summer-days of 1891, the writer was called to dress a scalp wound inflicted upon one railroad section hand by another. The wound was both contused and lacerated, and was made by a powerful blow with the back of a shovel. The man had on an old slouch hat at the time, and though the blow did not cut the hat, the scalp was split in three directions from a common centre to the extent of one and a half inch each way from said centre, thus laying the skull bare over an area of at least two square inches. Now, with an old, greasy, slouch hat mashed into the wound, and with a scalp crusty with several weeks' accumulation of dirt and the oily excretions of the skin, we surely had the ideal wound for "bacterial infection." You will of course say we had a suppurating wound very slow of healing. We did not have anything of the kind. I put some boric acid in warm water, using an old dirty tin pan as container—could get no better—and washed off the blood and as much dirt as possible, and shaved the wound margins and closed with silk sutures. Powdered with boric acid, put on gauze, cotton, and plaster. The result was "union by first intention," no pus. Do not understand that I disbelieve in asepsis. I carry it out fully when circumstances permit. Asepsis is simply cleanliness; and "cleanliness is next to godliness," so we are told. We should be clean if only from force of habit. The point I wish to make is, that it is silly to go into spasms over contamination from contact with some unsterilized student or clinical assistant, as we often see some of our learned professors do.

Dr. Charles E. Nammack, in his article on "Imperforate Hymen," page 81 of RECORD—same date as above referred to—says: "The patient made a speedy and satisfactory recovery. The case seems to show that the danger formerly attributed to rapid evacuation of these accumulations can be obviated by asepsis." Now, doctor, don't you think you ought to state it this way: That if death had resulted it would have been from "shock" caused by the sudden withdrawal of so large an amount of fluid; or from hemorrhage from tubal rupture; or from traumatic peritonitis—peritonitis from tubal rupture, or some similar traumatism? It is to be supposed your patient would have died without operation, so don't you think it was the operation and not the asepsis that did the work?

I once performed a laparotomy in which my assistant wiped the saliva from the patient's mouth with his fingers and immediately thrust them in the abdominal cavity. The wound healed with a temperature not higher than 101° F., and with no pus except a few drops at a stitch-hole. Such an assistant as the above is not a very desirable one, but we have a few such.

Truly the microbe is passing through a period of persecution; but we will some day "arise and call it blessed."

V. BERRY, M.D.

WAGONER, INDIAN TERRITORY.

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Original Articles.

THE MANAGEMENT OF ECZEMA IN CHILDREN.[1]

By ALBERT E. CARRIER, M.D.,

DETROIT, MICH.

Fully one-half of the cutaneous affections that occur in children under the age of five years are cases of eczema, and as they are all treated by the family physician, it is to the general practitioner that the specialist must look for the best therapy of the disease.

I think that it is our fault that many of these cases of infantile eczema occur. I think that it is our fault that they are allowed to continue for an indefinite period without treatment. I think it is our fault that when they come under our care they are not sooner cured.

Eczema in the adult, or in the child, is a perfectly curable disease. Eczema should be cured as rapidly as possible, no matter how small or how large a surface may be affected. The skin of the adult is a very complex and delicate structure, that has passed through its period of growth, and with its hardened epidermis it is in a comparative state of rest, able to resist and to repair injuries. The skin of a child is much more delicate, and more than this, it is growing, and its epidermis is very much softer than that of the adult, and yet it receives the harshest treatment at the very beginning of independent life.

During the life in utero the child lies in a bland alkaline fluid, of constant temperature, and is covered with an oleaginous substance that prevents any liability to maceration of the epidermis, and also protects it from the irritation of discharges that it comes in contact with in its passage to the outer world. At birth the babe it ushered at once into a gaseous envelope, with a drop in temperature of 20° to 40° F. Usually our first attention to the child is when the nurse asks about the dressing of the cord, and we find the babe wrapped in a woollen blanket, and its skin from head to heels as red as a boiled lobster, while kicking legs, flying arms, and lusty cry, attest its protest against the treatment it has received. The nurse has done her duty in a most conscientious manner. In the first place she greased the baby, using either lard, butter, bear fat, goose oil, skunk's oil, olive oil, or vaseline, according to her individual preference; rancid or not, it has been thoroughly applied and rubbed over the surface.

The next process is the getting rid of the fat by the use of soap, and here again the selection has been left to the nurse, or to the mother, and we find a nasty perfumed preparation has been used whose irritating properties are in direct proportion to the perfuming; this has also been thoroughly rubbed over the skin. To remove this, hot, cold, soft, or hard water is used, and the climax of the whole process is reached in the drying, and the attempt to establish the cutaneous circulation by briskly rubbing the skin with the hands, or often a harsh cloth. The probable result of this is the loss of the outer layer of epidermal cells, the natural protector of the skin.

After this comes the clothing, which is woollen next the skin, and tightly drawn together. It is a common thing to see a nurse attempt to put a fifteen-inch belly into a twelve-inch band. If the child survives these first assaults upon its skin without the development of a salt-rheum, the irritation of the daily routine of babyhood, with the daily baths and the extra bathing to meet emergencies, the exposure to temperature changes, or the direct rays of the sun, etc., may cause an inflammation to occur that speedily becomes eczematous.

Between babyhood and the age of five years the child is independent, and helps by its own actions to add irritations to an already sensitive skin, by scratching it with dirty nails, handling bugs, toads, spiders, etc., having a holy horror of all principles of hygiene, asepsis, or antisepsis, the outcome of which is likely to be an eczema.

So far I have called attention to irritations that might be called normal, as they consist of the surroundings of nearly every child from babyhood until the age of five years is reached, but other local causes will readily occur to the reader, such as pediculi, the itch mite, eruptive fevers, etc., either of which may be the cause of an eczema.

Eczema results from an internal or an external cause. From what I have said it might be inferred that I hold external agencies responsible for all eczemas in children. Do not so understand me, but I do believe that the largest number of cases are due to external causes, and as evidence of this stands the fact that eighty per cent. of the cases attack the face and the scalp, parts most liable to injuries.

Internal causes for an eczema are as various as are the internal organs. We can easily comprehend the relation of external agencies in the causation of an eczema, the local irritation setting up an inflammation that speedily becomes eczematous; but it is more difficult to explain the relation of a slight affection of some internal organ to an eczema that may only occupy a very small portion of the skin. Clinical experience proves, however, that such relations do exist. Most of the cases of internal origin will be due to some disturbance of the digestive tract, and are in the majority of instances due to improper feeding.

Foods for babies are as numerous as the grains of sand upon the seashore. There is but one food for a baby. Improper feeding may consist of too much or not enough of proper food. A fat baby is no more healthy on that account than is a lean one sick because it lacks fat. Fat, even within moderate limits, may be a pathological condition in a salt-rheum. Organic or functional disease of lung, liver, heart, kidney, or spleen, of even trifling nature, may develop a salt-rheum, or when once established keep it in existence.

I know of no skin disease that, being curable, so taxes the patience of the sufferer, or the skill and ingenuity and patience of the physician, as an eczema in the adult, unless it be the same disease in the child.

Salt-rheum of the child is salt-rheum of the adult, plus the extra liability of the child's skin to injuries, and the tendency to reflexion of gastro-intestinal affections to the cutaneous structures.

To preventive measures I attach the greatest importance in the management of this disease. I think that every new-born child should be treated as liable to an attack of eczema. Having this in view, directions for the care of the new-born would be pretty explicit, we would see that proper materials were at hand for the cleansing process, and that they were properly used with the profoundest respect for the skin; the fat or oil that is used to remove the sebaceous matter must be of the blandest kind, and one that is not liable to decomposition nor to the ravages of a microbe; lanolin, and the petroleum

[1] Read before the Michigan State Medical Society.

products furnish such. The soap must be perfectly neutral, an excess of alkali in a soap makes it very irritating. Pears' unscented transparent soap comes the nearest to a neutral soap of any that I have tried. The water used in washing must be soft and warm, not hot, and the wash cloths of fine old linen. The drying of the skin should be by simply mopping it, and this should be followed by a little fat smeared over the body. Woollen clothing must not be worn next to the skin, and all clothing must be held in place loosely. The same minute attention to detail throughout babyhood will probably avoid an outbreak of the disease, as far as external agencies are concerned.

Nursing children are very easily affected by the mother's milk, and a diligent inquiry of the mother in a given case may reveal the fact that she has a slight dyspepsia, or a tendency to gout, or rheumatism; or we may find that her habits of living are bad, she may take her food at irregular intervals, or she may be in the habit of using beer, ale, or porter, with the intent of increasing the supply of milk. Malt liquors are not good for the eczematous, and they are no better when strained through the mother. The child may be fed irregularly, or given too much or not enough at a time. Many of the eczemas occurring in children who seem to be otherwise in perfect health, may trace the cause of their disease to one or other of these faulty conditions of the mother.

After the child is weaned, its diet must be carefully attended to, the food must be nutritious, and easy of digestion. All rich foods must be avoided—pastries, gravies, puddings, sauces, and all fried foods are not good for the eczematous, nor are candies and too much sweets. Sometimes fat food is not taken in sufficient quantity. Diet regulating in these cases of infantile eczema is of the utmost importance, and we may be agreeably surprised when some rebellious case is speedily cured, when a trivial diet error is corrected.

Eczema always tends to become chronic, and no matter how small a surface may be attacked, it should receive our attention at once; cases should not be left to nature, nor treated expectantly; here is where we often make an error, and are responsible for the disease continuing an indefinite time. Attack the disease at its very beginning, and you may speedily cure it, but let it get well under way, and you may have a severe siege before it is overcome.

Eczema is an inflammation of the skin, acute, subacute, or chronic, and catarrhal in character. In the medicinal treatment of the disease we are to avoid both over and under medication. A routine practice will never satisfactorily combat an eczema. Treatment must be active and persistent, varying with the various conditions of different individuals, or in the same individual at different times in the course of the attack.

Internal medication will be directed to the removal of diseased conditions of other organs than the skin, and to discuss this would require an essay on general therapeutics. He who is the most successful in the practice of general medicine, will not so often call to his aid the so-called specifics for skin ailments, such as arsenic, mercury, etc.—remedies powerful for good in selected cases, but better left out entirely than to be used indiscriminately. In the cases where we are unable to find any internal cause for the eczema, we may give remedies for their direct action on the skin. The acetate of potash, or other saline diuretics, are of great value in reducing the blood pressure in affected areas, or the saline cathartics may be used for the same purpose. There is one remedy that I think of great value in acute cases, in the full-blooded, red babies, viz., antimony; it must be given in small doses and not too long continued.

A district in which the malarial toxæmia taints every disease (and this is the case in nearly every portion of our State) will be apt to exert a pernicious influence upon an eczema, and many of our little patients will need antimalarial medication before the skin affection yields. Quinine and iron will be needed, but it is difficult to get children to take quinine. I usually give it to the mother if the patient is nursing, and if weaned use it in ointment or suppository.

Local treatment is of greater importance as far as the special medication of the eczema is concerned. Many cases will continue even after the cause is removed, the skin becoming habituated to the disease. Soothing measures are required in acute cases, while stimulating remedies will be called for in subacute or chronic cases. Tar as an application in an acute case will do positive harm, while oxide of zinc, in an infiltrated patch of chronic eczema will as positively do no good.

Don't use plain water in an eczema that is acute, the washing of such a surface will completely undo your work. Don't fail to protect an acute eczema from the air, and if it is on the face keep the patient indoors when the wind blows. All scales, crusts, etc., must be removed before applications are made, so that the remedy may be brought into direct contact with the diseased surface, and this is better done by soaking the part with some fat until the scales are soft, and then gently removing with a mucilage of marshmallow, or flaxseed. The remedy must be ready for immediate use. To afford protection, to constringe the vessels, or to soothe the parts, remedies must be applied continuously, and may be in the form of powders, pastes, liniments, lotions, or ointments; but which to use in a given case is a matter of importance, and how it is to be used is of more importance. To direct that an ointment must be rubbed in night and morning on a patch of acute eczema, will do more harm than good. It must be spread thickly upon a cloth, and kept in place by bandages, removing when scales or crusts have formed; but this may not be necessary for several days, the longer the better, as it protects the young epidermis. Ointments are useful when the discharge is moderate, and when hairy parts of the body are involved. With a profuse discharge, lotions or powders are to be used. A liniment is preferable if the remedy is to be applied continuously to a large surface, with free discharge, and is used by saturating cloths, and applying closely to the part. Powders should never be used when the hairy parts of the body are the seat of this variety of eczema, as with the exudate they form crusts, matting the hair, and confining the irritating discharge; nor should they be used between diseased surfaces, as by their caking they form irritants with every motion. Mild, non-irritating antiseptics may be added to soothing applications with benefit. In all pustular eczemas, bactericides are called for, and of these iodoform stands at the head. It is this variety of the disease that has been called contagious, but it is only so in the same sense that are all pustular inflammations due to a pus coccus, transference of which to an abraded surface may develo[illegible] pustule. The dry, itching patches on the cheeks [illegible] forehead, or small patches of the disease with only sli[illegible] discharge, are best treated by the gelatine pastes, wh[illegible] may be painted over the parts once or twice a day. [illegible] soon as the disease has passed the acute stage, the tre[illegible] ment changes to one of a mildly stimulating charact[illegible] but always using the mildest remedy that will do [illegible] work. In these cases the applications are to be use[illegible] intermittingly. With marked infiltration severer measures must be used, and it is in these cases that the mercurials are of so much benefit. Soothing remedies should always follow an irritating application. A very distressing symptom of all varieties of the disease is the pruritus, and the efforts of the child to relieve this by scratching, will often undo in a minute the benefit that we have worked days to accomplish. The child must be prevented from scratching by force, until we can control the pruritus. This is often the most difficult part of our therapy of eczema. Antipruritics, such as thymol, menthol, tar, and carbolic acid are all useful; one of the best remedies for this purpose is "liq. carbonis detergens" diluted with water and mopped over the surface several times a day, following the application with a powder, or a little fat. I have confined my remarks to the discussion of principles, and indications, rather than to special

medicines, and the few mentioned are all familiar drugs. I have purposely left unnoticed the latest remedies recommended for this disease, because I think better results will be obtained from the use of the drugs with which we are familiar, than from the use of the newer ones that may have only a single case to recommend them.

14 Adams Avenue, West.

EMPTYING THE UTERINE CAVITY BY ARTIFICIAL DILATATION. A NEW BAG FOR ITS ACCOMPLISHMENT.

By J. S. PYLE, M.D.,

CANTON, OHIO.

Not infrequently the gynecologist is confronted with the subject of inducing premature labor, or emptying the uterine cavity for various causes; the obstetrician meets with many cases where artificial dilatation of the cervix would be preferable to hours of suffering, and the first thing to engage our attention under such circumstances is the means at our command. We next study the requirements and nature's method of performing the work, and ask ourselves if any known device will secure dilatation as effectually and with as little danger to both mother and child? Such a contrivance would certainly be desirable, and we are safe in saying that nothing, in general use up to the present day, has ever approached such perfection. It would be presumptuous for any person to assert that this would be impossible, as nature's methods are being paralleled every day by the inventive genius of man. In this instance we are greatly assisted by seeing the operation performed almost daily, and it would be strange indeed if some one did not undertake to imitate the process. An attempt was made some years ago by Dr. Barnes, of London, England. His contrivance, however, was far from fulfilling the requirements; and inefficient as it proved to be, it came into general use for the want of something better. Dr. Barnes made a mistake in the choice of the material out of which his dilating apparatus was to be constructed; and had he looked to the "bag-of-waters" for the solution of the problem this error would not have occurred. Elasticity is not a property of the membrane that enters into the formation of the bag-of-waters. If this property existed to a marked degree it would be impossible to effect dilatation, as the membrane would simply be obtruded, the dimensions of the amniotic cavity increased, and the whole force of contractile energy of the uterus would be expended upon an expanded surface, thereby diminishing the dilating force and interfering with the progress of labor. An elastic apparatus, such as Dr. Barnes's bag, is far more harmful in its use as a uterine dilator in the commencement and during labor than it would be if the same property was imparted to the membrane constituting the bag-of-waters. In the latter case no alteration to the normal presentation would be witnessed, while in the former this would be a serious objection. Instead of securing the dilatation, the elastic material out of which the bag is made, when put under the required pressure, bulges out balloon-fashion, displacing the uterine contents, and exerting a great tendency in favor of abnormal presentations with a dilating force equal only to the resistance of the elastic rubber. This is far from what is at all desirable, and is, I might add, dangerous. So much for elastic material and Dr. Barnes's bag; and if our allegation be genuine, what can be said in favor of an inelastic, impervious dilating bag, made sufficiently large to secure full dilatation for the passage of the oncoming head. Such an apparatus is represented in Fig. 1, upon which our remarks will now rest.

More than a year ago my mind was occupied with the subject of constructing an inelastic bag to be used by the gynecologist and obstetrician as well. My labors were somewhat impeded by the delay in selecting a material that combined the proper strength and delicacy of texture. This was a question upon which much depended, as I was aware that it would have to be made of material that would occupy the least possible space when inserted. My mind at last rested upon bolting silk; and forthwith a sample was obtained and forwarded to the Hodgman Rubber Co., of New York, for being treated with rubber to render it impervious to water. This was promptly returned prepared for working up into the article required. The form of the bag was the next thing in question, and here I spent considerable time experimenting. A cylindrical shape was decided upon, and at first it seemed a great advantage to shorten the vertical axis by the use of silk cords; but this soon proved to be unnecessary, and the trial bag was made without this addition, and with just enough material in the top and bottom to form a right angle with the vertical axis. Of course it would be impossible to retain this flattened surface where there is the slightest elasticity, as there is in all woven fabrics; but the loss in this adds little to the convexity and does not impair the usefulness of the apparatus. The transverse diameter decided upon

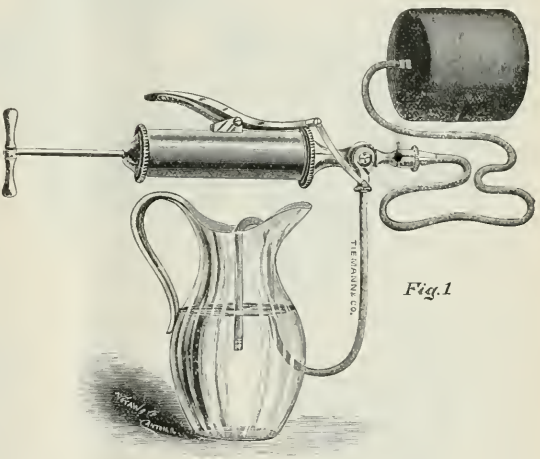

Fig. 1

was three and a half inches; the vertical, three inches. The seams were united with rubber cement, and to assist in this it was found necessary to have a form that could be taken apart and removed in pieces before the opening in the side of the bag was closed. The latter can be cemented without any support. After all this, which represented a great deal of labor and patience, a trial bag was secured and put to the test; but as its power of resistance fell short of my expectations, I proceeded to find a stronger fabric, and one that would answer the same requirements. The raw silk prepared by the Chinese was chosen this time, and treated as before. The bag made from this material was put to the test and answered every requirement quite up to my anticipations. I have had it in use for the past eight months, and will be able to give an account of its operation and the cases in which it proves of the most service. The appearance of the bag when it is in position and operation is well shown in Fig. 2.

Its introduction is effected by inverting the distal end, folding the sides in until it occupies the least possible space, and carrying the compact mass through the cervix up to the child's head. Here it should be pressed firmly, while the reversible acting pump, shown in the illustration, forces water enough into the bag to expand it. The effect produced is to carry the top end out beneath the membrane and between it and the cervix, and in the same manner expand the lower end to which the tube is

attached—giving it the shape of an hour-glass. When the bag is full of water it is self-retaining, and to secure dilatation all that is necessary is to place the liquid under pressure. This is the dilating force; and with the double-acting pump uterine contractions may be imitated and the dilatation secured in a most natural way. As the bag is being filled and the dilatation progresses, it acquires a cylindrical shape; and when the capacity is completely satisfied, it will be forced out of the cervix by the on-coming head, and may be used to dilate the vagina in like manner. In cases of labor where I have

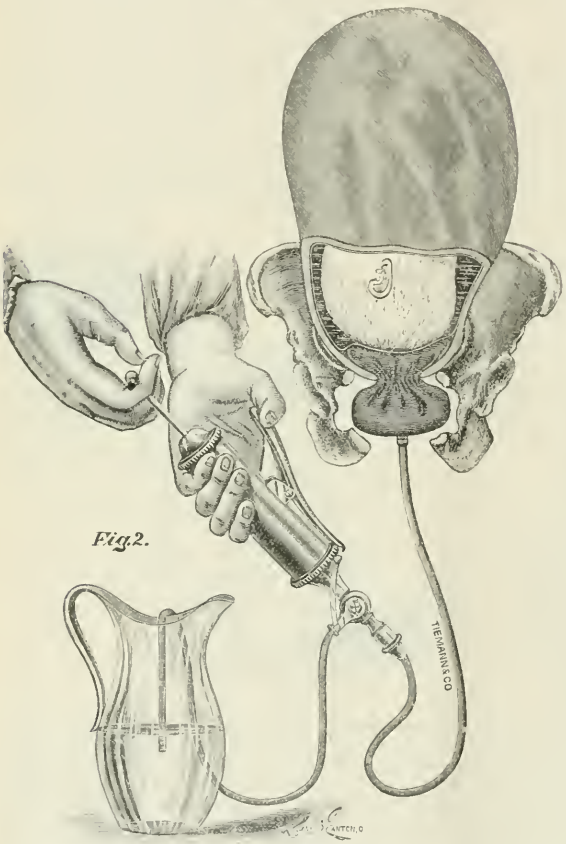

Fig. 2.

used it, I proceeded by dilating the vaginal passage first, so as to allow the greatest freedom to the introduction of the hand in inserting the bag. The operation appears simple enough, and is not difficult; but great self-possession and collectedness are required if we hope to become adepts and work with any satisfaction. After the bag is in place, gentleness and a well regulated pressure with intermissions should be observed. It allows the cervical tissue time to become œdematous and softened, thereby favoring the perfect dilatation of the parts. Care should be exercised not to let too much of the bag enter the uterine cavity, as it would displace the contents and probably encourage abnormal presentations; but this is not likely to happen if it is introduced while the uterine contractions are in progress, as the head will be forced down and prevent the bag from ascending. To the obstetrician the instrument is very desirable in painful labors, cases of uterine inertia, or where the tissues of the parturient canal are highly resistant. By it the hours of labor may be shortened and the patient relieved of a great deal of suffering and muscular exertion. In fact this is so marked that one is tempted to use it in the majority of cases, and I believe to a great advantage. For the induction of premature labor no instrument now in use will take its place. The rapidity of dilatation is under the direction of the operator and may be accelerated or allowed to progress slowly at pleasure. Water is used exclusively as the dilating medium, and the parturient canal, as well as the apparatus, is thoroughly disinfected. The use of the bag is extended to all cases where the uterine cavity is to be emptied or explored. Its value is inherent in its inelastic property and delicacy of texture. The former contributes to its resistance and the maintenance of the cylindrical shape, and the latter to its ease of introduction and wider range of application. The instrument is made by Tiemann & Co., of New York

68 West Tuscarawas Street, July 12, 1893.

IMPETIGO HERPETIFORMIS.

By M. B. HERMAN, M.D.,

Memphis, Tenn.,

Visiting Surgeon to St. Joseph's Hospital.

E. McC——, aged twenty-three, married, American, of healthy parentage, her father and mother both living and enjoying good health; one brother has had dropsy, two years ago, but is in good health now. She began to menstruate at seventeen years of age and has been irregular ever since, going sometimes for four months without a return of the flow.

In 1889 she had typhoid fever, lasting eight weeks. After her recovery her health had been good up to August, 1892, when she was attacked with severe pains and swelling in both ankle-joints, which was quickly followed by painful swelling of both knees and shoulders. Three months later, and while still suffering somewhat from arthritis, she was taken with a chill, fever, pains in her limbs, and nausea, and the following day noticed a vesicular eruption around her mouth and neck, which soon became pustular, and gradually involved the whole face, scalp, upper and lower extremities. She had no treatment up to February 28, 1893, when, after a trip of seventy miles in an ox-wagon, she was admitted into St. Joseph's Hospital, where she came under my care the following day. Her hair was cut short and was matted together. The whole scalp was a mass of pustular patches covered with soft yellowish crusts, which, when raised, discharged a large quantity of very offensive pus. The face, back, and extensor surfaces of the arms, flexor surface of the legs, as well as the posterior and inner aspect of the thighs, were covered with brownish-black, irregular crusts.

The neck, hands, and abdomen were free from any eruptions. Some discrete vesicles and pustules the size of a hemp-seed to a split pea, and a few groups of pustules the size of a ten-cent piece were scattered over the sternum and feet. No areolæ surrounding the crusts were visible except over each knee. There was no pruritus, nor had there been any since the beginning of the disease, and then it was only slight. Patient was free from glandular enlargement. The removal of the crusts with a paper-cutter exposed red superficial ulcers slightly purulent. Patient complained of sore mouth and swelling of the gums and fauces. She said she thought that was due to ptyalism caused from a dose of calomel which she had taken a few weeks before coming to the hospital. There was no abnormal flow of saliva at the time. The inability on the part of the patient to open the mouth prevented me from making an examination of the fauces,

but I am inclined to think that the lesions involved the mucous membrane of the mouth also. She still complains of pains in her limbs and joints, but no swelling; both knees are anchylosed.

Her temperature when admitted into the hospital was 101° F.; pulse, 126; bowels regular; tongue, as near as I could see, was clean; appetite fairly good, but could only take liquid food on account of her inability to masticate.

Two weeks after her admission into the ward she had a very severe attack of facial erysipelas; her temperature rose to 105½° F. for nearly four days; the face became very much swollen. The attack lasted six days. At first the improvement was slow, but after she was able to take nourishment freely the improvement became more pronounced.

As soon as the patient came under my care the crusts on her face and body were removed by the use of sweet-oil freely applied with a paint-brush, the scalp was cleansed with soap and water and a five per cent. solution of carbolic acid poultices applied; these were covered with gutta-percha tissue and bandage and renewed daily. In a few days the scalp was entirely free from crusts and the pustular patches were covered by a luxuriant growth of granulations. An ointment of white precipitate, grains x. to ℥., was applied, but soon replaced by another of three

per cent. carbolic acid, which was used continuously on the scalp and alternately on each side of the body. Internally the salicylates were given until all pain in the joints had disappeared, when tonics, arsenic, strychnine, iron, quinine, and malt were substituted with a full nourishing diet. Her appetite improved very much; she was constantly asking for food. She gained very much in flesh and strength. The large superficial ulcers, which looked red and shallow after the crusts had been removed, formed into decidedly "elevated" irregular cicatrices, with occasional new crops of pustules at the periphery. These fresh irruptions were usually accompanied by a rise in temperature of from 1° F. to 1½° F. and slight anorexia, which, however, subsided in a couple of days. No new lesions had appeared for three weeks prior to her leaving the hospital. She was discharged, apparently cured, on May 21, 1893, and left for her home in Mount Pleasant, Miss., feeling perfectly well, and with the promise that she would keep me informed if a relapse should occur.

The case has been of great interest to me, as it is the first case of impetigo herpetiformis which has ever come under my care. This is the second case reported in America.

According to Hardaway [1] some thirteen cases have been reported, twelve of which proved fatal, and the patient that recovered suffered many relapses, and the two who recovered from former attacks died later from the same disorder. Eleven of the cases reported occurred in pregnant women. Of the thirteen cases on record, twelve were reported by Hebra and Kaposi and one by Heitzmann.

SUPERFICIAL LACERATION OF THE FEMALE PERINEUM.

By FREDERICK P. HAMMOND, M.D.,

NEW YORK

In the evolution of research concerning the female perineum and its diseases, a few suggestions do not seem out of place concerning the pathological changes which take place following a laceration of the skin and superficial connective tissue. Our older teachers and many of the present day deal with the area of tissue between the vagina and rectum as the perineal body, and teach that its main function is the support of the female pelvic viscera. The newer school, unable to believe Nature had been so imperfect in her work as to leave the important organs of generation dependent upon a mass of connective tissue and skin for their support, sought for and found the more logical pelvic floor, consisting chiefly of the levator ani and triangular ligament. But these, having found the true support of the pelvic viscera, have in their enthusiasm lost sight of this still important organ, the perineal body. For in a degree it still remains a body, and its function is hardly less important than our older teachers held, for it closes and protects the vaginal outlet from the atmosphere and friction of the clothing, and affords support for the superficial perineal muscles.

From a careful observation among dispensary patients and in my private practice, I have taken special note of the existing condition of affairs in all cases presenting themselves where a laceration of the superficial perineum or relaxation of the pelvic floor due to a division of the fibres of the levator ani has existed, and in both the resulting pathological condition has been the same. From my observation, therefore, it seems conclusive that the more modern teaching of a slight laceration of the superficial perineum being harmless, further than for its cosmetic effect, is entirely erroneous. For if any gynecologist wishes to convince himself that hypertrophy and œdema of the vaginal walls follow a superficial laceration as well as a relaxed pelvic floor, he has ample opportunity in observing a number of the cases presenting themselves before him. While I admit that the serious train of symptoms such as cystocele, and rectocele with its attendant prolapse and subjective symptoms, is delayed in a case of simple laceration, it as certainly results from a case of relaxation. For given any case where the normal protection from atmospheric irritation and friction of the clothing is destroyed, hypertrophy and œdema are the logical result. And while those with opposite views would combat this argument with the circumstance that they have observed cystocele and rectocele in virgins who have passed the menopause, they must remember that they cite one of the rare occurrences of pathology, and might be brought to see the absurdity of their views by going still further and calling to mind the fact that cases of complete prolapsus uteri have occurred in strong, robust domestics who have the hymen intact.

The sooner we in a degree come back to a realization of the fact that a laceration of the perineum, however slight, is a pathological condition which demands interference as much as any of the other ailments of the female genital tract, the earlier shall we relieve our patients of so much suffering. There are many to day who, for a case of endometritis or salpingitis, advocate dilatation of the

[1] Manual of Skin Diseases, p. 211.

os and curetting—an operation not less serious in its results than a salporrhaphy in the hands of an ordinarily careful operator. Why, then, do we remain as extremists in our views regarding this condition, when proof is forthcoming that in this, as with nearly all others where minds have been at variance, a middle ground is our shield and haven?

1939 Madison Avenue.

CYSTICERCUS CELLULOSÆ.

By WILLIAM MOSER, M.D.,

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The hydatid ot the tænia solium is not often seen in this country. In Germany, where pork often raw or nearly so is much consumed, the parasite is by no means infrequently seen. In a discussion relative to cysticercus in the eye before the Berlin Medical Society, both Schweigger and Hirschberg were agreed that even in that country, owing to more stringent sanitary regulations, it is far less common than formerly. In England the immature tænia solium rarely finds its habitat in the eye (Nettleship). As this is its seat of predilection, we infer it is equally rare in the skin and subcutaneous tissue, brain, muscle, etc. Of course, it is admitted that all cases are not diagnosed, for the reason that the ophthalmoscopic picture is often rendered difficult by opacities in the vitreous and detachment of the retina. The latter complication is especially frequent (Schweigger), which one would naturally expect, since any foreign body or tumor (sarcoma of choroid, etc.) situated between retina and choroid only too often has this serious complication. When the view is unobstructed the diagnosis is easy, as the characteristic bluish-white vesicle seen with the ophthalmoscope cannot be confounded with any other condition. They may occur on the lid, and even in the orbit (Schweigger, Knies). In the skin and subcutaneous tissue the hydatid appears as a smooth, elastic but firm swelling. This was the condition of the tumor in a case seen by the writer. It was solitary in this case. They often occur multiple (Lewin). If the parasite be alive, the swelling has the character as stated above. If, on the other hand, the parasite be dead, the tumor is very much reduced in size and hard. Lewin, who has made and reported a number of observations, is of the opinion that they are at times mistaken for some cystic growth, lipoma or abscess. It is true, according to some observers, the sac may suppurate. In all doubtful cases the microscope is indispensable.

Cysticerci have been described by various observers in muscle. They are said to be common in the cardiac muscle and pericardium of the hog. In man, cysticercus of the myocardium or pericardium would be an interesting specimen. I would like to see one. I have never seen the hydatid in any muscle. I am inclined to believe, however, that they are apt to escape our attention. The writer well remembers, while watching autopsies in Germany, how the small white dots scattered throughout the muscle, and characteristic of the trichina spiralis, were overlooked until his attention had been called to them. We usually examine the muscular system a little hastily. These trichinæ, being calcified and consequently innocuous, are discovered accidentally at autopsies. The same statement may be applied to the cysticerci. In only two cases out of five which I saw, in which trichinæ were found in the muscles after death, was trichinosis held responsible for causing it. The cysticercus cellulosus, too, has this tendency to calcification. The scolex dies, the sac shrinks, becomes much reduced in size, and finally the whole tumor is converted into one solid calcareous mass, difficult of recognition. Such was the appearance presented in three cases of cysticerci of the brain which I saw. In two cases, it is interesting to note, the cysticercus found lodgment in the floor of the fourth ventricle; in the third case, in the lenticular nucleus. As a general rule, cysticerci of the brain are innocuous. They produce no symptoms which betray their presence. In one of the cases, however, occurring in the fourth ventricle, an internal hydrocephalus and "ependymitis granularis" were also present. As the other organs remained unchanged, the pathologist, Dr. Israel, was disposed to attribute the death in this case to cerebral compression caused by the internal hydrocephalus. The ependymitis granularis is a condition not infrequently seen in chronic hydrocephalus. It is sometimes seen in alcoholic subjects, but most frequently in the general paresis of the insane. In those cases in which the cysticercus undergoes a calcareous metamorphosis the hooklets, according to Ziegler, usually remain for a long time well preserved. The "cysticercus racemosus" described by Heller and Zenker, which has its habitat in the brain, consisting of a cluster of vesicles, usually sterile, like a bunch of grapes, has not come under my observation.

158 Ross Street.

THE STERILIZATION OF THE URETHRAL CANAL.

By JAMES PORTER FISKE, M.D.,

New York.

From a theoretical point of view, when a substance or surface is made sterile it is perfectly free from microorganisms or their spores. To test a given object, to ascertain its condition, whether it be free or not from bacteria, we make cultures. If we attempt to render the urethral canal sterile, and then take a urethral sound (sterilized), introduce it into the urethral canal, withdraw, and quickly apply it to a gelatine plate, we can very soon tell whether our efforts have been successful or not. If in the tracks of the sound over the culture plate colonies of bacteria proliferate, then the urethral canal has not been rendered sterile.

Practically, we cannot readily render the urethral canal absolutely sterile, because we cannot safely use the stronger antiseptic solutions; but we can put it in such a condition that any surgical procedure may be undertaken with impunity, as regards infection from the mucous membrane itself.

The passage of the urethral sound is a procedure which I would not undertake without first attempting to sterilize the canal and tissues surrounding the meatus. I see no reason for rendering our instruments aseptic, if we do not make the field of operation also aseptic. That the meatus and surrounding surface of the glans penis is usually surgically unclean, no one will dispute, yet the sound in its passage must come in contact with these parts and ca infection down. It would be interesting to know h many cases of urethral fever can be accounted for by passage of clean instruments over parts and through canal not rendered aseptic. That we may have a con tion of profound shock follow the passage of the ureth sound, is well known, but that a form of urethral fe not due to sepsis may follow the passage of instruments, do not believe. That infection may follow dirty instruments, an unclean canal, or the flowing of urine over an abrasion produced by the sound or otherwise; but infection always precedes true urethral fever.

The passage of instruments, particularly dilators (sounds), divulsors, etc., almost invariably produces fissures or excoriations of the delicate lining membrane of the urethra, and any foci of infection existing within the canal, or any particle of sepsis carried down the urethra, are favorably placed for absorption, and each may become the starting point of urethral ulcer, lymphangitis, acute urethritis, or urethral fever. The body as a whole, and various localities in particular, have been shown to have the power of successfully resisting bacteria in certain numbers and of varying degrees of virulence. And as we reduce the number of bacteria in a given region, so we decrease the chance of germ infection, and in a region where there exists a "locus minoris resistentiæ" this is of vital importance.

To one accustomed to aseptic methods, the precautions necessary to be taken to render the passage of instruments in and through the urethra safe, are simple. A pus basin, a blunt nozzled syringe holding about one ounce, some pledgets of absorbent cotton, a warm solution of ac. boraci., four per cent., and solution of bichloride (1 to 2,000), are all that are necessary. A sterilized towel, or one soaked in the solution $HgCl_2$ (1 to 2,000), should be so arranged that the penis lays on it, and the surrounding parts are covered. The entire penis, foreskin and glans, are to be thoroughly soaked with the bichloride solution. Then take the blunt-nozzled syringe and inject the solution ac. boraci. into the urethra, repeating once. The technique of urethral injections I have already discussed in a previous number of the MEDICAL RECORD.[1] After the above procedure we can safely pass sterilized instruments in and through the urethral canal. After the passage of any instruments, especially if I suspect that any abrasions have been made, I flush out the urethral canal once more with the solution ac. boraci., and allow the patient to depart. This simple procedure is to be carried out previous to the passage of any instruments, either exploratory or for treatment, as the use of the sound in stricture, Thompson's searcher for stone, etc., and is not to be confounded with the more extensive antiseptic precautions which must precede every *bona fide* operation in this region. Instead of the saturated solution of boracic acid we may, with perfect safety and success, use a solution of peroxide of hydrogen (1 to 4), or a watery solution of Listerine in the same strength. A solution of iodoform in olive oil has been largely used, and in a measure fills the bill, both as a lubricant and antiseptic.

Many operators, immediately before any instrumental procedure, inject the canal with a solution of cocaine, and then proceed in their work, using clean instruments in many cases, it is true, but often making no attempt to render the site of the operation aseptic. If the patient understood the principles of aseptic surgery he would exclaim, "I will stand the pain, but will not tolerate the use of septic instruments or septic methods." There is no objection to the use of cocaine, but its use must be preceded by all antiseptic precautions being taken, and if the busy practitioner is pressed for time he had better discard the injections and applications of cocaine, and stick to aseptic surgery. The time and efforts expended for the prevention of pain should be applied to a better cause, the prevention of septic infection.

Some physicians will perhaps think it unnecessary to flush the canal. If the urethral canal is absolutely normal it is, but in any case where there is a pathological condition of the urethra we ought to irrigate. If the urethral mucous membrane is secreting abnormally, if we know or suspect the presence of granular patches, if there is an existing stricture, preventing as it does the free exit of discharges, irrigate by all means, and irrigate thoroughly, before the passage of any instrument. The surgeon who neglects to take this precaution in any of the above conditions, imperils the deep urethra and neck of the bladder.

If we except the catheter, it is a pretty safe rule to follow, that where there is cause to pass instruments into the urethra, there is also good reason to first flush the urethral canal. To the methodical surgeon who believes in and practises asepticism in this region, it is only a question of putting one's self to a little trouble and the expense of a little time, say seven to ten minutes, both of which he gladly bestows on his patient, realizing as he does the result of septic infection.

328 WEST FIFTY-SEVENTH STREET.

"**Drunkenness**" was the subject of discussion at a recent meeting of the Sunset Club of Chicago. Several of those present related their personal experiences with great effect.

[1] The Value of Urethral Injections in the Treatment of Acute Gonorrhœa, MEDICAL RECORD, August 26, 1893.

VIRAGINITY AND EFFEMINATION.

BY JAMES WEIR, JR., M.D.,
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IN following up the chain of evolution in animal life from its inception in primordial protoplasm to its end, as we now find it, we discover that the interlinking organisms are, in the beginning, either asexual or hermaphroditic. The moneron, the lowest form of animal life, simply multiplies by division. The different elements through which propagation and generation are carried on, are undoubtedly present even in the moneron, but are not differentiated. The moneron is an organless, structureless organism, consequently asexual. The cell, on the contrary, is hermaphroditic, for it contains within itself the necessary elements for reproducing itself. The amœba is the connecting link which connects all terrene life with primitive bathybian protoplasm, and is, strictly speaking, a true hermaphrodite. Ascending at once to the sixth stage in the ancestry of man, we come to the acœlomi, or worms without body cavity.[1] These worms are phylogenetic, consequently hermaphroditic. I do not mean to say that these worms have the organs of each sex equally developed; therefore, in the use of the word hermaphrodite, I use it in its broadest sense. I simply mean that they are autogenetic. In the rhabdocœla the sexual organs appear in their simplest forms—a testis anterior to a single or double ovary. Other gliding worms have a more complex arrangement of the sexual organs, but most of them are true hermaphrodites. Next in the chain of evolutionary development, and one step nearer man, we find the soft worms (scolecidæ); from a branch of this family the parent group of vertebrates was developed. The immediate ancestor of the vertebrates was either the amphioxus (lancelet) or some other notochordate animal, whose type is now extinct. Thus we have traced hermaphroditism from the amœba to the amphioxus, from the ancestor of the parent cell to the ancestor of the vertebrates. We could carry it further, but it is unnecessary. Effemination and viraginity are due directly to the influence of that strange law laid down by Darwin—the law of reversion to ancestral types. It is an effort of nature to return man to the old hermaphroditic form from which he was evolved. It is an effort on the part of nature to incorporate the individualities of the male and female, both physical and psychical, in one body. The phenomenon of atavism is more apt to occur in feeble types than in strong, healthy, and well-developed types. Microcephalism, occurring, as it most frequently does, among ignorant, ill-nourished, and unhealthy people, is an example. Dolichocephalism and a flattening of the cranial arch, with corresponding loss of capacity in the skull—types that we see everywhere among the depraved and vicious—are other examples of this tendency of atavism to seize on weakened and unhealthy subjects. Effemination finds more victims among the wealthy and the educated than among the poor and uneducated. This phenomenon is a psychic rather than physical hermaphroditism, and is directly traceable to the enervation produced by the habits of the wealthy and unemployed. Wealth begets luxury, luxury begets debauchery and consequent enervation. Periods of moral decadence in the life of a nation are always coincident with periods of luxury and great wealth, with consequent enervation and effemination: examples of this may be found in the histories of Rome, Greece, and France. During the reign of Louis XV., examples of effemination crowded into the court and vied with the royal fop in the splendor of their raiment and effeminacy of their bearing. Psychic hermaphroditism does not occur in uncivilized or half-civilized races.[2] The reason for this is patent. Atavism finds among them no weakened and enervated subjects on whom to perpetrate this strange travesty on nature. Large cities are the hotbeds and breeding-places of the various neuroses. There, general

[1] Haeckel: The Evolution of Man, vol. ii., p. 76.
[2] Kraft-Ebing: Psychopathia Sexualis, p. 7.

paresis treads closely upon the heels of sexual neurasthenia, while the victims of hysteria and kindred ills are almost countless in their number. What wonder, then, that the offspring of such parents should be weak and neurasthenic, and fall easy victims to the thousand and one erotic fancies that beset them. What wonder that atavism here finds its richest field, and plays its strangest and most fearful pranks, sending men into the world with the tastes, desires, and habits of women, and women with all the mental habitudes of men! Juvenal wrote in scathing, searing sarcasm of the degeneracy of the Roman youth; effemination was very prevalent, and this bitter satirist advised the Roman ladies to look for men among the gladiators and peasants. The people of cities divide themselves into classes, and these classes are generally exceedingly clannish. It is not considered good form to marry out of the class to which an individual may belong, consequently no new types of individuals are added to the class.

I have shown that luxury enervates the class that indulges in it. The people of this class intermarry among themselves, and if no new blood is added, in a very few generations examples of effemination and viraginity begin to make their appearance, due to enervation and consequent psychic hermaphroditism We see daily on our streets, mild types of effemination in the cigarette smoking, soda-water-drinking young men whom the caricaturists consider their legitimate prey. The tailor-made, horsy, and loud-talking young woman is by no means infrequent—an example of mild viraginity. Effemination makes its appearance early in life. The boy likes the society of girls. He plays with dolls and, if permitted, will don female attire and dress his hair like a girl. He learns to sew, to knit, to embroider, and to cook. He becomes a connoisseur in female dress, and likes to discuss matters pertaining to the toilet. He does not care for boyish sports, and when he grows older, takes no pleasure in the amusements and pursuits of his masculine acquaintances. He prefers to spend his time with women and engage in their employments and amusements. As the change in his psychic being becomes more developed and more overpowering, he will endeavor to approach the female in gait, attitude, and style of dress. I have seen mothers guilty of incalculable harm by fostering such inclinations in their sons. They think that such perversions of taste indicate gentleness and kindness, and induce their sons to continue in the practice of them, thus assisting atavism in its baleful work. Effemination is a disease which, taken at its inception, can generally be eradicated and cured. As soon as it is discovered the boy's surroundings should be changed. His mind should be directed into new channels and his dormant boy's nature aroused. Out-door exercise and a free intercourse with companions of his own sex, should be made important factors in the treatment of an incipient effeminant. He should be carefully watched until his *vita sexualis* has been established. He should then be taught the dangers of youthful follies and indiscretions. A dandified man is always ridiculous, but when he adds to his foppery, effemination, he then becomes contemptible. Several years ago I had the opportunity of studying a pronounced effeminant. He is one of the best-known young men of a southern city, and is a leader in society. He took me to his "boudoir" and showed me his "lingerie." The words quoted are his own. His night-gowns were marvels of artistic needlework, and made by himself. His night-caps were "sweetly pretty," and one of them was a "perfect dream of beauty." On his bureau were all the accessories of a modern society woman's toilette, including rouge, powder, a complete manicure set, and numerous bottles of perfumes and toilet waters. In his wardrobe he had, displayed on forms, some six or eight corsets and chemisettes—"corset-covers" as he designated them. This man's voice and manner of speaking are decidedly feminine; all the little mannerisms and affectations of a society woman being faithfully reproduced. I understand from his associates that he is a splendid business man, and that not a breath of scandal has ever tarnished his good name. He was reared by his mother, and never associated with boys until his sixteenth year. I understood from him, that she always treated him as a girl, and consulted him in all things pertaining to her toilette. He seemed utterly unconscious of his anomalous condition, and as his business associates are gentlemen, and his intimate friends are ladies, he may drift through life without a single jar to mar the serenity of his existence.

Viraginity is by no means an infrequent occurrence, and under its influence the unfortunate victims are guilty of startling vagaries. The recent case of Alice Mitchell, who killed Miss Johnson, at Memphis, Tenn., is an example of pronounced viraginity. We see daily in the newspapers accounts of women who masquerade as men, and history abounds in like instances. The celebrated writer, Count Sandor V., was a woman who posed as a man, and who was in fact Sarolta (Charlotte), Countess V. "Among many foolish things that her father encouraged in her was the fact that he brought her up as a boy, called her Sandor, allowed her to ride, drive, and hunt, admiring her muscular energy." At the age of thirteen she ran away from school, where she had been sent by her mother, and returned home. "Sarolta returned to her mother, who, however, could do nothing and was compelled to allow her daughter to again become Sandor, wear male clothes, and, at least once a year, to fall in love with persons of her own sex."[1]

Mothers, early in life, though not from any sense of danger to their daughters, begin to eradicate the tom-boy inclinations in their female children; hence the comparative infrequency of viraginity. The congenital viragint will always remain somewhat masculine in her tastes and ideas, but her inclinations and desires having been turned toward femininity early in life, she will escape the horrors of complete viraginity or gynandry. The victim of effemination, however, is saved by no such accidental forethought. The ignorant mother fosters feminine inclinations and desires in her effeminate son until his psychic being becomes entirely changed, and not even the establishment of his *vita sexualis* will save him from effemination. An only son, who is in the least degree neurasthenic, runs the risk of becoming an effeminant under the tutelage of a loving but ignorant mother who encourages his feminine tastes and inclinations.

A young man of my acquaintance, who is an only son, is so situated. This young man devotes his entire attention to matters of the toilet. He paints his cheeks a powders his face; even his eyebrows and eyelashes a anointed with some dark-colored ointment or pomac Effemination and viraginity are more prevalent in t Old World than in the United States. The civilizati and settlement of the United States are, comparativ speaking, new. The people are, as yet, a young, stro and vigorous nation. Years of luxury and debauch have not yet brought the penalty of enervation and n rasthenia to the masses, though, in certain circles of ciety, it is becoming painfully evident that that penalty is being even now exacted. In this article I have described only mild types of viraginity and effemination. In the more pronounced types of these singular examples of atavism or reversion, the victims commit the most unheard of and the most unnatural acts. Almost every case of effemination or viraginity can be cured if recognized and treated in its incipiency. The parents should be the physicians. They should keep a watchful supervision over their offspring, and as soon as any evidences of effemination or viraginity become apparent, treatment, both physical and psychical, should at once be instituted.

Effemination has occasioned the downfall of many nations; let us guard against it with all our power. Let us train up our boys to be manly men, and our girls to be womanly women.

[1] Birnbacher: Friedreichs Blätter f. ger. Med., 1891.

Surgical Suggestions.

Hernia in Childhood.—Palliative measures are, of themselves, sufficient in almost all cases to effect a cure. To permit a child to grow up to adult age handicapped by so serious an infirmity, bespeaks culpable neglect or criminal ignorance.—Dallas.

Odontalgia.—The pain of toothache is soothed by allowing a current to pass through the painful part by pointing an electrode toward it while the patient is in communication with a static machine.—Gatchkovsky.

Galvanic Cautery should be used only by men who have taken the needful time and trouble to learn how to handle an instrument capable of so much harm.—*Journal of Balneology.*

Purulent Pericarditis.—Here operation by incision and drainage is fully justified, since its execution causes no trouble in the functions of the heart, and because it offers the only chance of safety. An incision is made in the fourth or fifth intercostal space, at a few centimetres to the left of the sternum. Drainage without washing.
—Sievers.

Mastoid Suppuration.—The technique of operating should vary with the nature and needs of the case. Usually a liberal incision close behind the auricle, free exposure of the bone, and penetration by the gouge close behind the auditory canal below the level of its upper margin and the spina supra meatum, is safest and surest to reach the antrum.—Randall.

Appendicitis.—If there is an abscess at the head of the colon with the peritoneum shut off, it should be opened, washed out, and packed. If done in time it should not have one per cent. mortality.—Price.

Fracture of the Neck of the Femur in the aged should be managed by treating the patient, and not the fracture. Leave off apparatus, use sand-bags, do everything that will make the patient comfortable and prevent bedsores.
—Allis.

Gonorrhœal Orchitis.—Paint with crystallized carbolic acid, nine grams; alcohol, one gram; several coats being applied over scrotum and course of spermatic cord. Cocaine injections will prevent pain.—Lardier.

Pneumonectomy is reported by Lawson (*British Medical Journal*). The right infiltrated apex was ligated and removed. Three months later the girl was doing well.

Bronchiectasis.—Inject into the trachea a drachm of the following:

R. Guaiacol	2 parts.
Menthol	10 parts.
Ol. oliv	88 parts.

—Stewart.

In Pelvic Abscess or repeated attacks of cellulitis due to leakage from the open end of a diseased Fallopian tube, the best interests of the patient demand early removal of the diseased tube.—Boise.

Removal of the Tongue, if contemplated for a growth of moderate dimensions, can be best accomplished by ligaturing the vessels as a part of the operation.—Haslam.

Partial Gangrene in hernia will show extension of the sloughing under prolonged manipulation. If left *in situ* the intestine may contract adhesions, and a curable form of artificial anus be produced.—Heaton.

The Gasserian-ganglion may be removed as a last resort in tic douloureux. Trephining the base of the skull through the pterygoid region is the preferable operation. The steps are: 1, the incision of the skin; 2, section of the zygoma and coronoid processes, and detachment of masseter and temporal muscles; 3, exposure of the base of the skull, and search for the foramen ovale; 4, opening the base of the skull; 5, removal of the ganglion; and 6, reposition of structures and closure of the wound.

Uterine Carcinoma.—Schultze's alcohol injection treatment is an undisputed palliative measure which should not be neglected. It not only relieves pain, but checks discharge and bleeding.—Pomoriski.

Stenosis causing obstructive dysmenorrhœa, with symptoms gradually growing worse each month, and menstruation finally stopping, and where examination shows a puckered scar instead of an os uteri, is best treated by introducing a duckbill speculum, fixing cervix with volsella, and incising with sharp knife through scar which represents the os.—Herman.

Hernia in children should be operated upon (MacEwen's method) if not cured by the careful and continuous use of a truss for one year.—White.

Œsophagotomy.—Where foreign bodies present angular or sharp surfaces, abstain from attempts at extraction and proceed at once to operate.—Cahier.

Gummy Syphilides of the lower extremities extend rapidly in those who neglect personal cleanliness. After poulticing, apply

R. Nug. de Vigo,	
Styrax	ā 10 grams.
Vaseline	50 "

—Besnier.

Contracted Meatus is alone sufficient to cause urethral inflammation by reflex irritation, and when such a condition obtains, permanent relief cannot be expected without complete division of the orifice.—White.

Indications for Intubation.—In the early stages of croupy children; in the cases of diphtheria where the membrane is principally in the fauces: in cases of dyspnœa in children dying of diphtheria, where the parents will not consent to a tracheotomy.—Burrell.

Tetanus is much more frequent after gunshot wounds than after other injuries; and after several of the battles of our late war the statistics show a very large prevalence of tetanus, because the patient lay exposed for an unusual length of time in the heat of the sun, the nervous system became thoroughly exhausted, and absorption of dirt germs ensued.—Cheever.

Symblepharon Treated by Snellen's Method.—Mr. Priestley Smith showed a boy upon whose left lower eyelid he had operated for symblepharon by Snellen's method. The adhesion between lid and globe, which was the result of a burn, having been freely divided, reunion was prevented by the interposition of a thin flap of skin obtained from the outer surface of the lid. The flap was pushed through a sort of buttonhole in the lid, and thus brought into position between lid and globe without severing its pedicle. The pedicle was severed later.

The Ordinary Fracture of the lower extremity of the radius usually requires no splint, and should be dressed with a wristlet of adhesive plaster or bandage. When a splint is required, a narrow, short dorsal splint, fixing the wrist, is all that is necessary.

Fractures of the lower extremity of the humerus of ordinary severity are, as a rule, more successfully treated in the extended than in the flexed position, because the "carrying function" is less liable to be impaired.—Roberts.

Small Tympanic Perforations, Dr. Harris says, may be positively diagnosed by blowing finely pulverized boracic acid against the drum until it is coated. Examination a few hours later will show a dark spot where the secretions have passed through.

Progress of Medical Science.

The Bacteria of the Respiratory Passages.—The respiratory passages being freely in communication with the external air on the one part, and with the saliva on the other, are naturally continually exposed to microbic invasion. According to Pettenkofer, among all the various ways by which pathogenic organisms can gain entrance to the animal organism, the lungs occupy the chief position (*Medical Press*). In the normal state, that is to say, when the integrity of the passages is complete, no microbic infection takes place, but the case is different when any lesion of the mucous membrane exists. In the nasal cavities of eighty-one persons examined, the mucus obtained therefrom contained pathogenic as well as non-pathogenic bacteria. Among these persons were six medical men engaged in laboratory work, eight domestics, four soldiers, and twenty-eight convalescents. There appears, therefore, to be no doubt that even in the case of the healthiest men the nasal fossæ become as it were the storehouse of a large number of microbes of various species, some of a virulent character, which are ready at the first opportunity to create mischief in the respiratory passages. Besser has studied the bacteria found in the larynx and bronchi, and for this purpose he examined the bodies of many persons shortly after death. In the mucus of the larynx in five cases he detected the streptococcus pyogenes; in the same cases the staphylococcus dore was present three times, and the micrococcus albus liquifaciens four times. So far as the normal bronchial mucous membrane is concerned, the number of bacteria is not so considerable In ten cases examined after death the streptococcus pyogenes was found twice, the diplococcus of pneumonia thrice, the staphylococcus aureus thrice, and the bacillus of Friedlander once. Thus there is evidence to show that the microbes of pneumonia and of suppuration can survive in the bronchial secretions without causing any pathological changes in the lungs. The question then arises how it is that these microbes are able to display their virulent effects. Undeniably the influence of cold in the majority of cases has much to do with this result. From the inhalation of cold air bronchitis is produced, and with the sudden chilling of the body while in a state of perspiration nutritional changes are caused, which in each case afford the microbes the opportunity of asserting their virulence.

Influence of Extirpation of the Gall-bladder on Digestion.—As is well known, the bile, which is so essential for the digestion of fat, is normally poured into the small intestine only periodically, viz., at the time when there is the greatest demand for its presence. When, however, the gall-bladder has been extirpated there is presumably a constant trickling of bile over the mucous membrane of the intestine, consequently affording only a small amount at the time when intestinal digestion is at its height. What the effect of this may be upon digestion, especially the digestion of fat, has never been determined. Küster has indeed intimated that in his opinion total extirpation of the gall-bladder would give rise to general disturbances of the system, such as follow, for example, total extirpation of the thyroid. As, however, cholecystectomy is an operation occasionally called for, knowledge of the probable results to follow are especially desired, and Rosenberg has attempted to obtain experimental evidence of the effect of the removal of the gall-bladder on the digestive processes of the intestinal tract. His experiments were conducted on a dog of 10.3 kilos. body-weight, the animal being confined in a suitable cage and fed upon a weighed diet of known composition. After the animal had been brought into a condition of equilibrium the urine and fæces were analyzed for three distinct periods of four days each, the amount of fat and proteid matter absorbed under these normal conditions being thus ascertained. The gall bladder was then entirely removed by making an incision along the right mammillary side, only a small piece of the cystic duct being allowed to remain. The wound healed quickly, and after three days of fasting the animal was allowed to eat, and on the seventh day after the operation was put upon his former diet. Shortly thereafter the urine and fæces were again analyzed for three periods of four days each, the diet being the same as before the operation. The following table shows the results obtained:

	Before the Operation.			After the Operation.		
	I.	II.	III.	IV.	V.	VI.
Absorption of nitrogen in per cent.	93.75	95.40	95.55	93.50	95.14	95.05
Fat in per cent.	98.66	98.18	98.53	98.04	98.53	97.69

It is thus evident that so far as the ultimate result is concerned, the digestion and absorption of both proteids, or nitrogenous foods, and fats is not in the least affected by extirpation of the gall bladder. In order to make sure that the bile, after the operation, did flow constantly over the mucous membrane of the intestine, the animal was killed after fasting twenty-four hours, and the parts examined. As a result, it was found that the portion of the cystic duct remaining, together with the point where it was joined to the hepatic duct, were widened to the thickness of an ordinary lead-pencil, while the ductus choledochus was normal throughout, without the slightest appearance of widening. Further, the entire mucous membrane of the intestine was covered with yellowish brown bile, thus showing that the bile did flow continuously into the intestine. Hence, it would seem safe to conclude that extirpation of the gall-bladder, followed as it must be by a continuous flow of bile through the intestinal tract, is without influence on digestion.—*Dietetic Gazette.*

Removal of Cancerous Inguinal Glands.—Dr. Ruprecht calls attention to the necessity of a radical removal of the inguinal glands in cases of carcinoma of the umbilicus, the penis, the vulva, the anus, and the lower extremity, and also in many instances of cutaneous sarcoma on the thigh. This practice he has carried out during the past ten years in every case of cancer in the abovementioned regions, in which a prolonged operation was not contraindicated by debility of the patient, or advanced age. In the groin, as in the armpit, in cases of cancer of the breast, the glands, it is held, should be removed, even though not appreciably enlarged. In cases of cancer either on the right or the left side, only the corresponding inguinal glands are removed, but in cases in which the primary disease is seated in the median line of the body, the author clears out both groins. The operation, like that for removal of the axillary glands, is a extensive one. A skin incision is made from the spine of the pubes to the antero-superior spine of the ilium, and a second is carried downward from the middle of this along the course of the femoral vessels. The skin is then separated from the subjacent soft parts as far as the aponeurosis of the external oblique muscle above, the fascia lata on the outer side, and the adductor muscles on the inner side. The triangular mass of fat and glands thus circumscribed is then carefully detached from the deep fascia by using as far as possible a blunt instrument. In the course of the dissection it is necessary to divide the saphenous vein. It is often necessary to remove the fat and glands from the fossa ovalis after division of the falciform process, and also to reach deep-seated glands by incising Poupart's ligament.—*Centralblatt für Chirurgie.*

Vicarious Symptoms.—*The Wife:* There is a prescription that the doctor left for you to day when he called and found you out.

The Husband: How did he know what to give me?

The Wife: He said that from my appearance and symptoms he knew you were suffering from chronic dyspepsia.

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THE EDUCATION OF EPILEPTICS.

In a paper upon this subject, read before the Social Science Association in Saratoga, September 5th, Dr. Louise Fiske Bryson calls attention to the fact that two well-defined errors exist in the public mind concerning epilepsy. One is that all epileptics are insane. The other, that very few persons have epilepsy. In point of fact, epilepsy is a wide-spread disorder. It is calculated that one person in five hundred is thus afflicted. In the United States alone there are in the neighborhood of one hundred and thirty thousand epileptics, and over twelve thousand in the State of New York. They are everywhere in our midst. There are epileptic doctors, clergymen, bookkeepers, dressmakers, masons, and telegraph operators, who practise useful pursuits in spite of adverse circumstances. That all epileptics are insane, or about to be, or carry insanity around as a concealed weapon, is not true. The proportion of insane epileptics is really very small, much less than ten per cent., taken at the utmost (Peterson).

The epileptic child is always a sick child. He is different from others—not insane, but sick and subject to periods of disablement all his life. This should be taken into account from the start. Afflicted with a horrible malady, every effort should be made to render him agreeable and useful to his fellow-creatures. His whole future may depend upon his power of pleasing and being pleased. Too often dreamy, suspicious, irritable, uncertain, and subject to fits of violent temper that make him "gey ill to live with," the first lesson for the unfortunate child is self-control and self-effacement. Outbursts that in the healthy might occasionally be overlooked, should always be calmly and firmly suppressed. The impulse to violence of speech and conduct may last a lifetime. The power to control it can be acquired. While epilepsy does not necessarily lead to mental and moral degeneration, it is quite possible that the patient and the patient's family must exercise an ever alert intelligence if they would be sure that it does not efface some of the finer manifestations of mind. Epileptics who have been able to keep their place in the world in spite of their great disability, no doubt owe their success largely to the wise training of unsentimental parents, who early formed in them habits of order and self-control.

As the right training of mind is one source of physical vigor, education in its widest sense is the chief hope of the epileptic. What, then, should be its aim, its scope? The same as for a well child, the only difference being the necessarily modified application of methods. Hours must be shorter, and the intervals between tasks and lessons longer. Like all other children, the epileptic should begin his education in the kindergarten, among companions of his own age, where self-control, self-reliance, and the value of mutual concessions are learned in a perfectly natural and spontaneous way. The kindergarten is a system of scientific sense training, and capable of substituting correct habits of observation for the deadly introspection so common in nervous disease. To be practical, after the kindergarten, primary and grammar school age (the years devoted to the acquisition of tools and standards), education should concern itself with the universal interests that will endure when everything else fails and is outgrown. Of these permanent interests, literature, history, social economics, and the objective sciences are the chief, seasoned with something of art and a taste of foreign languages. Physical education is of supreme importance, since without some physical imperfection, either structural or chemical, epilepsy could not exist. The necessity of outdoor sports is at once apparent. Like others who are nervously weak, the epileptic must ever keep in mind two words that should always be joined as closely as the Siamese twins: moderation, exercise. With these they need not fear the uses of many legitimate pleasures, and even occasional irregularities in eating and sleeping.

Following school and college days comes special technical training for some chosen career. Though many attractive callings are permanently closed to the epileptic, since consciousness may leave him at any moment and without warning, the things that remain are many and consoling, and the trained will always find the way. As encouragement and incentive, it must ever be remembered that epilepsy and genius may co-exist. Dr. Peterson calls attention to certain well-known historical characters in whom the two have been united. While it may not be given to every epileptic to describe his own sufferings as does Dostojewsky in his novel "The Idiot," or to delight the world with music as did the epileptic Handel, or with comedy as did Molière, or with poetry as did Petrarch, or with military exploits as did Cæsar and Napoleon, or with religion as did Mahomet and St. Paul, it is still possible for him to exercise all of his own capabilities for his own support and for his own welfare and happiness.

To secure right conditions for the exercise and training of these capabilities, is the office of education—first of the public, then of the epileptic.

A Discussion on Cholera.—At the request of the Indian Government, the organizing committee of the Eleventh International Medical Congress has decided to establish a subsection of the Section of Hygiene, to discuss the whole subject of Asiatic cholera, to study its origin, the means of arresting its diffusion, and its treatment.

A Case of Poisoning by Balsam of Peru is reported by Dr. Lohaus. The subject was a nursing infant, and was poisoned by the balsam used by the mother for sore nipples.

THE PAN-AMERICAN MEETING.

The meeting of the Pan-American Medical Congress held recently at Washington, marks an era in the history of medicine in the Western Hemisphere, in that were brought together for the first time the representative medical men of the two Americas. We are pleased to note that the arduous endeavors of the accomplished and energetic secretary-general and other prominent officers of the Congress have been rewarded by such a complete success as to numbers in attendance as well as interest in the topics presented. The attendance, despite many adverse circumstances which obtain at this season of the year, was remarkably good, and the harmony of spirit and systematic working of the different parts of the complex organization does credit to all concerned. It was a difficult and delicate task, on the part of the organizers of the movement, to give each district its proper recognition and representation, but so far as can be seen no one was neglected, while the aggregate number of active participants was unusually large. It was eminently fitting that the President of the United States should open the Congress by a cordial god-speed for its beneficent work in the interchange of views calculated to minister to the health and consequent prosperity of two great countries. Although the attendance from the Eastern States was not as large as might have been desired, it was sufficiently representative of American medicine to give an idea to our foreign visitors of the trend of American thought and the animus of American work. Nor will we, in turn, be less impressed with the earnestness of purpose, honesty of endeavor, and sound practical suggestions of our distinguished confrères.

This meeting will doubtless be the beginning of a better understanding than ever between the two Americas, which, epidemiologically speaking, are oftentimes so closely connected in a common interest for self-protection against two of the most wide-spread and destructive of diseases. There was, we are gratified to note, a proper disposition to take the initiative in the way of formulating rules of action in times of emergency, by the establishment of uniform systems of quarantine and such proper health regulations as would best guarantee against the spread of pestilences. The other scientific work was fully up to the standard of the larger conventions, allowance always being made for the multiplicity of miscellaneous subjects and the necessary limitation of time in these presentations. We trust, however, that we have given our readers a full digest of the proceedings in the exhaustive reports which appear in the present issue, and which will be continued in future issues. We thus place on permanent record one of the most remarkable and, we hope, most edifying medical conventions of the year.

CŒLIA AND LAPARA.

Our friends the gynecologists are receptive and progressive. They drop the ovaries and take up the tubes; they leave the tubes and smite the appendix or loosen up the clitoris; they abandon the much prescribed douching for "whites," and simply wipe and clean and do an "antiseptic toilet."

We notice that recently there has been a sudden change in gynecological nomenclature from laparotomy to cœliotomy. In one week three notices of operations, from as many hospitals of this city, contained an announcement of four "cœliotomies." We are quite willing to admit that cœliotomy is the better word, though it is only six years old, but this is not very apparent at first sight. Cœlia means the abdomen or belly, and so does lapara. But cœlia also means any cavity of the body, including the ventricles of the brain, so that by cœliotomy one may mean the opening of the brain, thorax, or abdomen. The gynecologist should be reminded that there are other cavities than that which he manipulates so skilfully. Besides, there have been combined with the word "lapara" over twenty other words, making compounds which have come into more or less use. There will have to be a readjustment of all this, which it seems to us must be confusing and unnecessary.

TEN TESTS FOR DEATH.

It is the rarest thing in a physician's experience to be placed in any doubt as regards whether a person is dead or not. The cessation of breathing, the absence of audible heart-beat, and the physiognomy of the patient are enough. Every now and then, however, we are called upon to give some absolute test of death which is not connected with the heart-beat or the respiration. One of these criteria is the so-called "diaphanous test," which consists of an absence of the translucence seen in living people when the hand is held before a strong light with the fingers extended and in contact. An English physician relates in the *Lancet* an interesting experience with this test.

He was called to see an old lady who was believed to be dead, but whose countenance looked natural and life-like, the eyes being open. The family, being extremely anxious, urged that all the tests of death be applied, and this was done in the following order:

1. Heart-sounds and motion entirely absent, together with all pulse movement.
2. Respiratory sounds and movements absent.
3. Temperature of the body taken from the mouth the same as that of the surrounding air in the room, 62° F.
4. A bright needle plunged into the body of the biceps muscle (Cloquet's needle test) and left there, shows on withdrawal no sign of oxidation.
5. Intermittent shocks of electricity at different tensions, passed into various muscles and groups of muscles gave no indication whatever of irritability.
6. The fillet test applied to the veins of the arm (Richardson's test) causes no filling of the veins on the distal side of the fillet.
7. The opening of a vein to ascertain whether the blood has undergone coagulation shows that the blood was still fluid.
8. The subcutaneous injection of ammonia (Monte Verde's test) causes the dirty-brown stain indicative of dissolution.
9. On making careful movements of the joints of the extremities, of the lower jaw, and of the occipito frontalis, rigor mortis is found in several parts.

Thus of these nine tests, eight distinctly declared that death was absolute, the exception, the fluidity of the blood, being a phenomenon quite compatible with blood

preternaturally fluid and at a low temperature, even though death had occurred.

10. There now remained the diaphanous test, which we carried out by the aid of a powerful reflector lamp yielding an excellent and penetrating light. The writer says: "To our surprise the scarlet line of light between the fingers was as distinct as it was in our own hands subjected to the same experiment. The mass of evidence was of course distinctively to the effect that death was complete; but, to make assurance doubly sure, we had the temperature of the room raised and the body carefully watched until signs of decomposition had set in. I made a visit myself on the succeeding day to assure myself of this fact."

This experience shows that the diaphanous test is not a trustworthy one.

A CHINESE DOCTOR MAKES A PLEA.

Dr. Tom She Bin, Chinese physician, of Los Angeles, Cal.; writes to the *Sun* in behalf of himself and his countrymen who want to practise medicine. He says:

"In many States we are not permitted to practise medicine unless we pass examinations prescribed by the laws of those States; we are not supposed to know the American medical systems upon which the examinations for practice are based; and notwithstanding we are the masters of an older and superior system; notwithstanding we, when given a chance, cure ninety per cent. of the alleged incurables who for years have tested the inefficiency of Western medicines and skill; notwithstanding we possess honorably earned diplomas, the result not of two or three years' study, but of thrice that time—diplomas whose genuineness is attested by the officials of our Government: we are, in defiance of solemn treaty stipulations of the United States, which cover our business and in any other country would protect us in our cure of disease, driven from the practice of medicine."

Dr. She Bin says many other things to show that he and his countrymen are unfairly used. Perhaps he is right in some respects, but as to medicine he is wrong.

The States require of the Chinese, before they can practise medicine, only the same thing which is required of all others, natives and foreigners. The fact that he has studied Chinese medicine for many years does not help him, because, according to the standards of all civilized countries, this is not medicine, but a mixture of voudooism and stupid traditions.

Last Year much joy was given to the Parisians by a man with a musical anus. This year medicine supplies the curiosity. At the close of the Congress for the Advancement of Science the members of the Section of Medicine had a banquet. At dessert the "venerable Dr. Schiff, of Geneva, who presided," entertained the company by playing the "Marseillaise" with the abductor muscles of his feet. Strong rhythmic contractions produced a sound audible for two or three metres. He is said to be the only possessor of this accomplishment in society, which, however, does not prevent him from being a gallant gentleman and a scholar—*Au contraire!*—*Cor. Boston Medical and Surgical Journal.*

News of the Week.

Army Medical Appointments.—The following nominations have been made by the President: Major H. R. Tilton, Surgeon, to be Lieutenant-Colonel and Deputy Surgeon-General. To be Assistant Surgeons with rank of First Lieutenant: A. N. Stark, of Virginia; Charles Lynch, of New York; J. S. Culp, of Pennsylvania; E. L. Munson, of Connecticut; Charles B. Flagg, of South Carolina; J. M. Kennedy, of South Carolina; G. C. M. Godfrey, of Ohio; and W. F. Lewis, of North Carolina.

The Human Body used as a Medicament.—The leaders of the late anti foreign movement in China stirred up their emissaries to hatred of the foreign dwellers in their midst by various false accusations. Missionaries were charged with bewitching women and children, and murdering them for the sake of their hearts and eyes. According to Dr. Macgowan, who has lived in China for years, these charges are far from preposterous; for in that country various portions of the human frame are credited with therapeutic properties. In the only Chinese authoritative materia medica thirty-seven remedies of the kind are given. Human blood, taken into the system from another, is thought to strengthen it. Of course, this idea is not purely Chinese, as Western medicine has its transfusion of the blood of others as a last resource in extreme hemorrhage. But other Chinese remedies are not elsewhere recognized as efficacious. Thus, human muscles are supposed to be a good remedy in consumption, and children mutilate themselves to administer their flesh to sick parents. This treatment, too, is especially frequent among the *literati*. A graduate, finding "the snipping of the skin from his own arm too painful, seized a hatchet and cut off a joint of one of his fingers, which he made into broth mixed with medicine, and gave to his mother." The recipient must be kept in absolute ignorance of the potion thus prepared, while the operation is never performed for an inferior, as by a husband for a wife, or by a parent for a child. There is, consequently, a demand for portions of the human body, which command a certain price; and this fact tempts men to murder others that they may obtain the money which will be paid for the portions in question.

Increase of Morphiomania in Paris.—In 1883, according to an estimate made by M. Foville, the number of victims of morphiomania in Paris was 40,000; now M. Dubut de Laforêt puts the number at 100,000.

Arkansas State Lunatic Asylum.—Dr. P. O. Hooper, the medical superintendent of the Arkansas State Lunatic Asylum, has been forced to resign, as it was impossible, in consequence of political interference, to obtain competent assistants. Dr. Hooper has held office since the foundation of the Asylum.

Special Tour of Foreign Delegates to the Pan-American Medical Congress.—The foreign delegates to the Pan-American Medical Congress, in charge of Dr. S. S. Adams, of Washington, Chairman of the Committee of Arrangements, visited New York on Monday last, and were the guests of Dr. Lewis A. Sayre. A visit was made to Bellevue Hospital and the New York Academy of Medicine. A luncheon was given at the City Club, where speeches were made by Dr. August Comeau, of

Hayti, Dr. G. Mendizal, of Mexico, Dr. Reginald H. Sayre, Dr. George F. Shrady, of New York, and Mr. Ernest Hart, of London, editor of the *British Medical Journal*. The guests then visited the New York Cancer Hospital after a drive through Central Park, and, returning, inspected the Presbyterian Hospital. A portion of the delegation visited quarantine, and were the guests of Dr. W. T. Jenkins, Health Officer of the Port of New York. The delegation visited Boston on Tuesday and Wednesday, Saratoga on Thursday, Niagara Falls on Friday, and will spend Saturday and Sunday in Detroit, Monday in Cincinnati, and will arrive at Chicago on Tuesday next, where the members will separate for home

The Seventh Annual Meeting of the American Orthopedic Association will be held at St. Louis, Tuesday, Wednesday, and Thursday, September 19, 20, and 21, 1893. The sessions will be held in the lower hall of the College of Pharmacy, 2110 Lucas Place, at 9 A.M. and 2 P.M. daily. At noon, on Tuesday and Thursday, the Association will go into executive session. The annual dinner will be held Wednesday evening, at 8 o'clock.

An Army Medical Board will be in session at Washington City, D. C., during October, 1893, for the examination of candidates for appointment to the medical corps of the United States Army, to fill existing vacancies. Persons desiring to present themselves for examination by the board will make application to the Secretary of War, before September 15, 1893, for the necessary invitation, stating the date and place of birth, the place and State of permanent residence, the fact of American citizenship, the name of the medical college from whence they were graduated, and a record of service in hospital, if any, from the authorities thereof. The application should be accompanied by certificates based on personal knowledge, from at least two physicians of repute, as to professional standing, character, and moral habits. The candidate must be between twenty-two and twenty-eight years of age and a graduate from a regular medical college, as evidence of which his diploma must be submitted to the board. Further information regarding the examinations may be obtained by addressing the Surgeon-General, United States Army, Washington, D. C.

There is Great Newspaper Indignation over the alleged misconduct of two physicians lately assistants at the Flatbush Insane Asylum. It is asserted that one of these gentlemen placed a lighted cigarette between the lips of a corpse upon which they were making an autopsy, while the other danced around it. It would be wiser to find out the facts before the local editors get too much excited. The tale seems to be a very highly colored one.

A New Medical School in Boston.—The trustees of Tuft's College have decided to establish a medical department. The new school will be located in Boston, and will be opened next October to men and women on the same footing. Albert Nott, M.D., is the Dean, and Charles P. Thayer, M.D., the Secretary.

Western Reserve Medical School.—Professor Gad, of Berlin, has been appointed professor of physiology in the medical school of the Western Reserve University, O. The required school term each year hereafter will be eight months. The new professor, Dr. Gad, ranks among the leading physiologists, and has just written a text-book which has been very highly commended, especially for the thoroughness of its chapters on the nervous system.

Professor Czerny has sent a contribution of twenty dollars to the Gross Monument Committee, as a mark of his "admiration for the man and the surgical work which he has done."

The Progress of Cholera.—The report of the United States Consul at Nantes, France, which reached the Marine Hospital Service this morning, shows that cholera is on the increase there to an alarming extent. For the week ending August 26th there were 73 cases and 36 deaths, not including those treated at the various hospitals. The previous week showed only about 50 cases and 15 deaths. Surgeon General Wyman, of the Marine Hospital Service, received a cablegram from United States Consul Rosenthal, at Leghorn, Italy, saying that there was cholera at that place. Without specifying the period of time, he says that there were 27 cases, 5 of which resulted fatally. On Saturday and Sunday, according to the returns of the Imperial Board of Health, only 4 fresh cases developed in all Germany, and none of these was in Berlin. A death from Asiatic cholera was reported September 11th at Retford on the Idle, county of Notts. Another death from Asiatic cholera has occurred at Rotherham, in the West Riding of Yorkshire. The physicians' report as to the two deaths at Retford, county of Nottingham, confirms the statement that they were caused by Asiatic cholera. A death that recently occurred at Gainsborough is now declared to have been due to the scourge. There has been a severe outbreak of cholera in Leghorn, in a dirty quarter of the town named Venuzia. In this district, September 11th, 265 cases and 7 deaths were reported. The record in other infected places for twenty-four hours is as follows: Naples, no new cases; Cassino, 4 new cases, 1 death; Palermo, 3 new cases, 4 deaths. Cholera returns from Constantinople for September 12th show 14 new cases and 5 deaths. A bacteriological examination was made into the cases of two men who died there, September 12th. Both are believed to have died of Asiatic cholera.

Death of Dr. Graily Hewitt.—We regret to have to announce the death, at the age of sixty-five, of Dr Graily Hewitt, for many years professor of obstetri medicine in University College, London, and obstetri physician to the hospital. Dr. Hewitt's contributior to the special branch to which he devoted his life wer numerous and important, and his personal characte caused him to be much beloved by students and co leagues alike. We hope to publish a full obituary notic at an early date.

Medical Education in the United States.—*Polk's Medical Register of the United States for 1893* contains the names of more than 105,000 practitioners, including "'paths" of every variety. Of the 137 lawfully established colleges in the United States and Canada. 23 now require four courses of instruction of not less than six months each; 23 require four or more years of study and three courses of not less than six months each; 55 require three or more years of study and three terms of not less than six months each. Of the remaining 36, all but 7 have announced a minimum requirement of three courses of instruction before candidates are admitted to the final examination. Nearly

every medical college in the United States now requires clinical instruction, laboratory instruction in chemistry, toxicology, the analysis of urine, normal and pathological histology, bacteriology, pathology, and hygiene. More than ninety per cent. of the regular colleges in the United States now require preliminary education equal to or better than that required in high schools of the first class.

American Public Health Association.—The twenty-first annual meeting of this Association will be held in the Art Institute Building, Chicago, October 9 to 14, 1893. In connection with the World's Congress Auxiliary, it is proposed to make this meeting an International Congress of Public Health, and the preliminaries have been conducted with this end in view. The meeting will be held in sections, and papers will be classified accordingly.

Onychophagy is the name given by a French physician to the morbid habit of nail-biting. He finds it very common among French school-girls—61 out of 207 in one school. Are the deformed finger-ends and nails so commonly seen a result of the custom?

Reviews and Notices of Books.

Naphey's Modern Therapeutics, Medical and Surgical, including the Diseases of Women and Children. Ninth Edition. Edited by Allen J. Smith, M.D., Professor of Pathology, University of Texas, and J. Aubrey Davis, M.D., Assistant Demonstrator of Obstetrics, University of Pennsylvania. Philadelphia: P. Blakiston, Son, & Co. 8vo, pp. 1112.

The general plan of this well-known work is consistently followed out in the present volume and gives the reader an amount of practical knowledge of the numerous subjects touched upon which is not only well arranged but tersely presented. The number of formulas presented from the leading authorities in the different branches is remarkable and bears evidence of very careful selection. It is a capital work of its kind, and will prove, as it has done before, an excellent and suggestive aid to the practitioner.

Clinical Lectures on Abdominal Hernia, chiefly in Relation to Treatment, including the Radical Cure. By William H. Bennett, F.R.C.S., Surgeon to St. George's Hospital, etc. London and New York: Longmans, Green & Co. 1893. 8vo, pp. 225.

This volume is made up of revised clinical lectures on the subject treated, which were delivered in St. George's Hospital, London, and afterward published in *The Lancet*. In their new form they present the reader with a number of interesting facts connected with differential diagnosis and much of necessary detail in the perfection of radical treatment. The author is in favor of the simpler radical operations and advocates the invagination of the sac as the preferable one when it can be performed. His remarks on differential diagnosis are admirable, and will be read with great interest by everyone liable to meet a hernia with an obscure history. The diagrams in the work are well made and answer their purpose most satisfactorily.

Influenza. Its Pathology, Symptoms, Complications, and Sequels; Its Origin and Mode of Spreading, and its Diagnosis, Prognosis, and Treatment. By Julius Althaus, M.D., M.R.C.P. Lond., Senior Physician to the Hospital for Epilepsy and Paralysis. Second Edition. London: Longmans & Co. 1892.

So much has been written upon the subject of influenza since the late epidemic began, that, in preparing a second edition, the author has an extensive journal literature to go over, and this has undoubtedly been of much assistance in making this account of the disease in its varied aspects as complete as it is. The thought naturally comes into one's mind on first picking up this work, What circumstances have led a man like Althaus to produce a work upon the grip? Few pages have to be read, however, before one is forcibly reminded of the vast importance of the disease in its relation to the nervous system, in its onset and clinical features as well as in its sequelæ. In the chapters devoted to the nervous forms, to the post-grippal psychoses and diseases of the brain and membranes, spinal cord and peripheral nerves; to the sympathetic system and to general neuroses, the author is especially felicitous, while no portion of the subject has been neglected. Literary references are quite copious, and the index of authors takes up several pages. There are three hundred and sixty-three pages of very readable matter, and one can find much valuable information presented in an attractive way.

Pocket Dose-Book. Edited by John Edwin Rhodes, M.D. Chicago, Ill.: Sharp & Smith. 1893.

This vest-pocket edition contains a complete posological table of old remedies and the new ones of established value. The doses are given in both apothecaries' weights and measures and in the metric system, with easy rules for changing from one to the other. The book also contains rules for artificial respiration and treatment of asphyxia, a table of poisons and their antidotes, etc.

A Text-Book of the Theory and Practice of Medicine. By American Teachers. Edited by William Pepper, M.D., LL.D., Provost and Professor of the Theory and Practice of Medicine, and of Clinical Medicine, in the University of Pennsylvania. In Two Volumes. Illustrated. Volume I. Philadelphia: W. B. Saunders. 1893.

This new work is apparently intended as a compromise, in size as well as in thoroughness of treatment of the separate articles, between the encyclopedic treatise of medicine and the ordinary one-volume text-book. This first volume contains forty-five articles, averaging twenty pages each, written by six contributors. The subjects treated of are hygiene, the infectious diseases, and nervous, muscular, and mental diseases. Some of the articles are rather unsatisfactory in their brevity, and others are longer, in proportion to the size of the treatise, than the importance of the subject demands; but, apart from this unevenness, the work is good. The articles are practical and up to the times, and, moreover, the authors are all well-known teachers of medicine who are entitled to speak with an authority that commands respect. This work, like the three-volume one published, under the same editorial management, by Lea Brothers & Co., is, we understand, sold by subscription only, a method of sale which we should think would interfere with its use as a students' text-book. We presume its distinguished editor has not undertaken this work without the consent of Messrs. Lea, publishers.

The Year-Book of Treatment for 1893. A Critical Review for Practitioners of Medicine and Surgery. Philadelphia: Lee Brothers & Co. 1893.

This is the ninth edition of this excellent annual. The review of therapeutic progress embraces the second half of 1891 and the first half of 1892. Two new articles, "Anæsthetics" and "Public Health and Hygiene," have been added to this edition. This Year-Book is destined to retain its popularity for many years.

The Chronic Disorders of the Digestive Tube. By W. W. Van Valzah, A.M., M.D. New York: J. H. Vail & Co. 1893.

This little book brings nothing new nor original, and confounds new scientific problems with obsolete theories. The author speaks of atrophy of the stomach, or of cases with anacidity, and postulates a thorough examination of the blood, urine, and fæces as the best help for diagnosis.

Society Reports.

Pan-American Medical Congress.

First Meeting, Held at Washington, D.C., September 5, 6, 7, and 8, 1893.

(Special Report to the MEDICAL RECORD.)

(Continued from p. 346.)

SECTION ON OBSTETRICS.

GILES S. MITCHELL M.D., EXECUTIVE PRESIDENT; HUGH HAMILTON, M.D., AND JOHN J. CASTELLANOS, M.D., SECRETARIES.

FIRST DAY, TUESDAY, SEPTEMBER 5TH, AFTERNOON SESSION.

The President's Inaugural Address.—Parturition, the President of the section said, cannot in different races and in different countries so widely differ, hence the means of aiding it should not be so varied. He was convinced that such a meeting as the one being inaugurated would be more potent in diffusing a more just and mutual appreciation of our knowledge and practice than volumes of literature, and work beneficial results which would be felt throughout the great republic of science. We were here to express collective judgment upon controverted points. Certain great principles had been grasped which seemed unlikely to undergo change, but the mode of application of those principles was susceptible of infinite improvement, and each step in advance meant probably the saving of many lives.

"Medicine," Lord Bacon had said, "has been a science more professed than labored, yet more labored than advanced; the labor having been, in my judgment, rather in a circle than in progression. For I find much iteration, but small addition." Especially was this true of obstetrics until the last two decades, since which time the progress had been extraordinary.

In 1847 Semmelweiss had clearly indicated the true nature of puerperal infection, but his voice was not heeded until Lister utilized the researches of Pasteur and became the father of antiseptic surgery. The enthusiasm with which the German school embraced the antiseptic plan soon led to abuses, which were followed by serious consequences. Then Winckel, Breisky, and Gusserow inaugurated the present aseptic or prophylactic plan.

The most famous teacher of obstetrics in France to-day had introduced the forceps.

Allusion was made to the development of Cæsarean section and its modifications, to the renewal of symphyseotomy with its wonderful results, to the prevention of tetanus and ophthalmia neonatorum by asepsis or antisepsis, and to the prevention of much suffering on the part of mother and child by the practice of aseptic principles in general.

The consensus of opinion of this section ought to go very far toward settling many disputed questions, such as how much pressure and moulding the fœtal head could be subjected to without permanent damage? When is delivery by turning preferable to forceps? The limitations and field of symphyseotomy, Cæsarean section, Porro's operation, and the induction of premature labor?

In conclusion, Dr. Mitchell extended his personal thanks to the Secretaries, Drs. Hamilton and Castellanos, for their untiring efforts in behalf of the section.

The Hemorrhages of Pregnancy; Their Management.—DR. JOHN O. POLAK, of New York, read the paper. Hemorrhages due to rupture of the uterus and to extra-uterine pregnancy were left out of consideration. Others occurring ante-partum were: (1) Bleeding as a symptom of miscarriage; (2) placenta prævia; (3) accidental hemorrhage from the partial separation of the normally placed placenta and ectopic gestation, post-partum hemorrhage from atonicity of the uterus, and lacerations of the cervix, vagina, and vulva. Hemorrhage as a sign of miscarriage, when very slight, could be controlled by rest in bed, suppositories of morphia and atropia, drachm doses of fluid extract of viburnum, or pills containing four grains of the solid extract. He could report thirty-two cases treated in this way, averting abortion. In more severe cases, when abortion was inevitable, everything should be made aseptic, and the vaginal tampon be used to empty the uterus and secure firm retraction. The bladder and rectum should be emptied, patient placed in Sims's position, douche given of two per cent. creolin through a Sims speculum, carry strips of iodoform gauze through the internal os, pack well, and finally fill the whole vagina with gauze. The gauze acted in three ways: It stimulated uterine contraction, favored dilatation, caused separation of the ovum by producing accumulation of blood between it and the uterus. If necessary divulse by the rapid method.

In placenta prævia Dr. Polak advised that the uterus be emptied when the first hemorrhage took place. He would tampon with iodoformized gauze, remove the gauze in about eight hours, and douche with an antiseptic. If the cervix would then admit one or two fingers, and it usually would, he would turn by the Braxton-Hicks method, and bring down a foot to act as a tampon.

Digital dilatation, podalic version and extraction had proven very successful in the hands of many, notably Grandin.

In accidental hemorrhage from partial separation of a normally placed placenta, rapid dilatation manually was indicated, or if the portio-vaginalis were effaced, the bloody method: rupture the membranes and deliver rapidly by forceps or version; remove the placenta immediately and tampon the uterus with iodoform gauze to control hemorrhage. The author thought that ergot given before delivery in these cases caused spasmodic action and tendency to stricture at the lower segment.

In post-partum hemorrhage from uterine atonicity give proper attention to the third stage of labor; if no hemorrhage, wait fully half an hour before delivery, grasp the uterus and keep up friction until there was firm contraction; if bleeding, express the placenta, afterward squeeze out clots and press the fundus well into the pelvic cavity; use ergot hypodermatically. He had so used it three hundred and twenty-one times without abscess forming, injecting into the deep muscular tissue on the posterior aspect of the thigh. Tampon the uterus. In tears control hemorrhage by ligature or suture.

In acute anæmia subcutaneous injections of salt solution had been particularly valuable. He had had a case of full bladder as a cause of hemorrhage, which had impressed upon him the importance of Dr. Waldo's advice always to empty this viscus.

In secondary hemorrhage (occurring after a day pe haps) empty the uterus with the finger, use hot douch ergot, tampon with iodoformized gauze.

Discussion upon this and other papers took place late

A Comparison Between the Mexican and Europea Pelvis, with Practical Consequences Arising from th Peculiar Conformation of the Mexican Pelvis.—PR FESSOR MANUEL GUTIERREZ, of the City of Mexico, re a paper in Spanish upon this subject. The Mexican pel was characterized by a general reduction in its diameters, which was the more remarkable as it approached the perineal floor, being made so by the great elevation of the pubic symphysis; by the great inclination of the excavation and of the straits; by the great extension of the perineum, and by the straightness and direction of the vulva. The consequences of this configuration were: 1, Some difficulties in extatic accommodation; 2, the peculiar manner of practising vaginal touch; 3, a certain tendency to facial presentation from the mechanism of delivery; 4, delivery sometimes slow and made painful by the difficult movement of descent, rotation, and extension of the head and by the accidents caused by the remaining of the ovoid in the vaginal canal; 5, these difficulties were sometimes manageable, but they often required the interference of art; 6, the conformation and diminution of the floor and pelvic outlet exposed the perineum to great danger.

A Study of Placenta Prævia, especially the Causes of the Hemorrhages.—Dr. Sarah Hackett Stevenson, of Chicago, read the paper. During the past ten years she had been teaching students a theory of the causation of hemorrhages in placenta prævia, which, with one exception, had not yet found its way into journals or text-books. The peculiar tendency to hemorrhages in placenta prævia was due to gravity and the mechanism of circulation of the parts. Gravity tended constantly to overcome the supports which held up the uterus and its contents and to drive them through the opening below. As to the circulation, the uterine artery entered the organ below, and pursued a tortuous course upward, but was straighter in the lower segment. The course of the veins was more direct and longitudinal than that of the arteries. When the placenta was implanted high, the general course of the arteries transversely to the uterus was opposed to gravity as a cause of hemorrhage; but when the placental implantation was low, as in placenta prævia, a rupture of a vessel was almost like opening the aorta. When the force of gravity became greater than that of the utero-placental connection, rupture of distended vessels took place with more or less profuse bleeding. Moreover, it was the author's opinion, based on a study of the direction of the vessels, that when uterine contractions took place, the blood was squeezed into the veins of the lower segment, which were already unduly distended in placenta prævia. The veins below become diverticuli for the blood pushed out of those above. Other factors might exist, but were not constant.

Dr. Zórraga, of Mexico, asked the opinion of those present upon the state of the circulation in the newly-born during asphyxia. In America and Europe it seemed to be the belief that the circulation and number of heart-beats were diminished. In Mexico observation had been that the opposite was the case, the heart failing only toward the end.

Dr. Stevenson supposed, if it were shown the heart-beat was accelerated, it would be of value in prophylaxis, as pointing to impending asphyxia.

Dr. Polak was asked whether he had seen iodoform poisoning from the introduction of iodoform into the uterus; and he replied that he had not. The agent, it seemed, came only in contact with the surface, and acted as a disinfectant, but was not absorbed.

Dr. Gutierrer said that in Mexico they were very much opposed to making cervical incisions in order to effect delivery quickly.

Dr. P. A. Harris, of New Jersey, said he had avoided making cervical incisions in one case by long waiting, and he knew of a surgeon being called to a case who preferred and actually performed Cæsarian section rather than incise the cervix, although he was acquainted with the work of others in delivering by the bloody method. He asked Dr. Polak whether actual danger had arisen in any case from hemorrhage.

Dr. Polak knew only of Dr. Marx's case, and in that instance the bleeding was controlled by ligature. By this means and uterine and vaginal tampon the danger was almost *nil*. Repiying to Dr. Stevenson, he thought there might be some danger in cases of placenta prævia. Danger of tear through the utero vaginal segment had caused some to stand aloof from the procedure.

Dr. Gutierrer said after-results were feared in Mexico.

Dr. Dewees, of Kansas, preferred to bring about cervical dilatation by use of chloroform or the lancet. He had used one or both of these measures successfully in about a dozen cases, seen in consultation, all simpler measures having been tried prior to his arrival. The lancet was used only in plethoric women, chloroform in anæmic. Replying to Dr. Polak, he said the supposed danger of increase of after-hemorrhage, when chloroform was used, applied, he believed, more to plethoric patients. He withdrew twenty to fifty ounces of blood, and dilatation followed almost immediately. Hot douches succeeded in one case.

Dr. Mitchell said he had been accustomed to tell students that chloroform favored after-hemorrhage, but was beginning to think it a mistake.

Dr. Knox, of Pennsylvania, had found tartar emetic hastened dilatation and delivery.

A Study of the Blood in Pregnancy.—Dr. Fernando Zórraga, City of Mexico, read a paper in Spanish on the above subject.

The Application of Graphies to the Fœtal Heart-Sounds.—Dr. Hugh Hamilton, of Harrisburg, Pa., read the paper, which had to do with the application of electricity to magnify and record the fœtal heart-bruits. The instrument presented in this connection was designed to raise one of the certain diagnostic signs of pregnancy out of the domain of sense into that of record, so that the tracings might be distinguished from those of maternal origin. The instrument was of Dr. Hamilton's own make, called a cardiophone. A technical description was given, and was followed by the statement that the slightest movement of the tympanum of the cardiophone would cause the telephone-receiver to vibrate with magnified vigor, so that it could be heard ten or twelve feet, and the nerve of a frog's leg, if it were connected with this, to contract and record its markings on blackened paper. Placing one cardiophone on the aorta of the mother and another upon her abdomen, connected in two circuits, they were brought to record their marks upon the same cylinder, so that the parallel tracings could be compared. The pulsations of the fœtal heart being 140 to 160, and those of the mother 75 to 80, made the difference in the tracings or cardiographs.

In very fat individuals or certain positions of the child in utero it was impossible to hear these sounds or to get perfect records. Should the several souffles give symmetrical markings, it would be conclusive evidence of their being maternal. The apparatus occupied a box three by three by six inches and weighed a quarter of a pound.

Second Day, Wednesday, September 6th—Morning Session.

The Status of Obstetrics in General Practice.—Dr. Eliza H. Root, of Chicago, read a paper with this title. The question was asked, Why is the physiological and perfectly natural function of child-bearing so frequently followed by health-ruining results? The answer was given, after naming the conditions which drove the patient to the gynecologist, which were traumatic or inflammatory. The second were due largely to septic infection at or during the lying-in period. Careless practice or ignorance on the part of accoucheur or patient were the causes. The physician, she regretted to say, often assumed the responsibility of caring for labor cases without sufficient clinical experience obtained during student life. The necessity for better opportunity to obtain such experience in medical schools was pointed out. The fault often lay with the patient, who might call the physician only after the occurrence of eclampsia. She permitted constipation to continue, causing toxæmia and mechanical interference. One of the most important demands was proper after care, and the physician should not permit any degree of poverty on the part of the patient to cause him to make but one visit. Visiting physicians by districts among the poor in cities was approved. Cleanliness was still much neglected. More attention should be given to the sick-rate, less to the death-rate; for the former being looked after, the latter would care for itself.

The Induction of Premature Labor.—Dr. J. H. W. Chestnut, of Philadelphia, read this paper. Cases calling for the induction of premature labor included: 1, Cases of contracted pelvis which would render labor at term dangerously difficult to the mother or child. 2, Cases of maternal disease which progressively endangers the life of the mother. 3. Cases in which in previous pregnancies the child has died in the latter weeks of gestation. 4. Cases of hopeless disease of the mother, for

the sake of the child (which seldom occurred). 5. Cases in which the child is known to be dead. 6. Ovarian, bony, or malignant tumors, or atresiæ of the canal.

Contracted pelvis, especially in Americans, was uncommon. In a considerable practice the author had seen but one case in which the conjugate diameter at the brim was less than two inches and a half. But he had seen many cases where it was only three to three and three-fourths inches. If it were two and three fourths inches to three and one-fourth inches, he would advise the induction of premature labor in preference to waiting until term and resorting to symphyseotomy or other operative procedure. Cæsarean section, notwithstanding its recent improvement, was still a formidable operation, fraught with danger to both parties. The same objection applied to its modifications. Symphyseotomy was open to the objection that it was frequently followed by hemorrhage and the pelvic strength was impaired.

He would also induce labor in justo minor pelvis where the antero posterior diameter at the brim was under three and one-half. The difficulty of diagnosis in time was a great obstacle, patients often calling the obstetrician late. One should in all instances, if possible, obtain the patient's previous history and take the external, and, if possible, at least one internal measurement of the pelvis—from lower edge of symphysis to promontory of the sacrum. In the hands of the general practitioner, especially, was induction of premature labor the safer operation.

Dr. Sarah Stevenson, of Chicago, and Dr. Upshur, of Richmond, heartily endorsed the spirit of the paper of Dr. Root.

Dr. Gutierrez said they had tried regulation of midwifery by examination in Mexico, but the first attempt failed. A law was now contemplated requiring courses of three and five years.

Dr. Hugh Hamilton, of Pittsburg, offered the following resolution: That this section hereby protests against the practice of obstetrics by foreign or domestic midwives, without proper regulations.

The resolution was referred to a committee to report Thursday.

The President appointed the following on the committee: Drs. Root, King, Upshur, Gutierrez, Stevenson, Zorraga, Chestnut, Castellanos, and Hamilton.

Aids to Easy Parturition.—Dr. A. J. C. Saunier, of Chicago, read the paper. The points which he should mention might be minor in themselves, but taken collectively they were likely to make a great difference in the ease of parturition. The first aids should be instituted early in life. The mother should be warned of habits likely to endanger the general health of her daughter, teach her to avoid habitual retention of urine, constipation, dresses dragging upon the waist. During menstruation, prevent undue congestion and secure freedom of flow. After pregnancy, diet was important, the author advising the use of such food as did not favor undue osseous development, corn bread, wheat, other cereals, and food which contained much earthy salts, giving white bread, potatoes, vegetables, acid fruits. The latter (acid fruits) kept the bowels free and caused solution of the earthy salts in other articles, so that they could be carried off by the kidneys—proof of which he had seen in the softer and more cartilaginous bones of the child.

Pelvic troubles, especially inflammations, should be corrected. Cultivate occasional vaginal douche and bathing. During the last week apply hot cloths on perineum, at least 118° F., a hot douche, etc. Abridge the first stage by securing frequent and firm uterine contraction by massage of the abdomen and digital assistance at dilatation, keeping the finger in perhaps half an hour, and thus avoiding the necessity for frequent re-introduction. The best time to perform cephalic version was about two weeks before labor, assisted by the genu-pectoral position.

Dr. Chestnut, of Philadelphia, doubted the propriety of excluding food which would favor bone development in the child, limiting the mother's diet to white bread, potatoes, fruit, etc., even if this course would leave a softened condition of the bones of the child. It might leave the child in an unhealthy state which it would be difficult to repair. He also feared the use of cocaine or other agents benumbing the parturient tract.

Dr. Saunier said in reply, that he had recommended this diet to mothers for twelve years and had not observed osteomalacia in the children or other evil result. Replying to an interrogatory by Dr. Upshur, he said he had seen no toxic effect from the use of cocaine in the genital tract. He usually introduced a suppository containing ten grains of cocaine. Nor had he observed that there was greater frequency of tears.

Dr. Upshur had observed toothache or loss of teeth in women deprived of phosphates, etc., relief from toothache being obtained by administering hypophosphites, etc.

Dr. Saunier had observed no ill effects on the teeth, etc., from the restricted diet.

Afternoon Session.

The Mechanism of Labor.—Dr. Jacob Charles Rutherford, of Providence, R. I., in presenting this paper, quoted freely from others which he had published bearing on the same subject. He held that the theory of the mechanism of labor, as advanced by ancient and many modern writers, was erroneous. That the parturient canal was not curved, as had been claimed, could be shown, he said, by a study of the anatomy of the parts, the changes which took place during pregnancy, and the phenomena of labor. The parturient canal, he held, was angular, not curved; when the presenting part had reached the bottom of the trough in the pelvic floor rotation was complete; flexion and extension took place at the utero-vaginal angle. Stress was laid upon the utero-vaginal angle in a study of the axes of the parturient tract. In high forceps delivery, traction should be made in the line of the uterine axis; in low forceps delivery, in the line of the vaginal axis.

Obstetrics among the Negroes of South Carolina.—Dr. P. Gordon de Saussure, of Charleston, read the paper. It was based principally upon statistics of private practice and of the health board of Charleston. It was difficult to obtain exact figures as to age, commencement of menstruation, etc., from negroes. Everything with them was "about," and a year or a few years was regarded as of little importance by them. In thirty-three cases where the date and age were known exactly, menstruation began on the average at 13.1 years. In forty-eight cases the average age at which the menopause arrived was 48.8. He had delivered some who were said to be aged fifty-three.

Amenorrhœa, dysmenorrhœa, and hemorrhage were extremely rare. They were more fruitful than the whites, averaging 6.8 children; but since their condition had changed and they were compelled to provide for themselves, they tried to shirk the responsibility of motherhood and very frequently produced abortion by drugs—never mechanically. Pregnancy ran a natural course, no disturbance, except that eclampsia was not uncommon as compared with the whites. Perhaps it was due to anæmia from poverty. He knew of only three cases of extra-uterine pregnancy. Septicæmia or puerperal fever was extremely rare, in spite of frequency of abortions and filth. At least nine-tenths of the labors were attended only by negro midwives, who practically did nothing. They never introduced the finger. If the placenta did not come away the midwife tied the cord to the mother's ankle with the view of preventing it from slipping back, and gave her a bottle to blow in. The latter custom proved useful, in causing the diaphragm to descend and aiding expulsion. Syphilis existed in at least seventy per cent. of them. The pelvic measurements were more ample than those given for whites, and delivery was very easy. The dirt and filth in which they lived was almost beyond imagination, and the freedom from puerperal sepsis could be accounted for only on the theory that this condition arose, not from auto-infection, but from intro-

duction of poison from without. As said, midwives never made vaginal examinations nor undertook mechanical delivery, nor induced abortion with instruments.

The Therapeutic Application of Chloroform in Labor.—Dr. J. N. Upshur, of Richmond, opened his paper with the statement that a long experience with chloroform had led him to question its supposed safety in labor. We were apt to forget that labor is a natural phenomenon, except under unusual circumstances. Chloroform when used in such cases might, he thought, cause some form of dystocia and call for interference. A full appreciation of the possible dangers attending or following the use of the agent required reference to its action under ordinary conditions in the production of the different degrees of anæsthesia. There was its influence upon the cardiac nerve centres, upon the cerebral and spinal centres, upon the respiration, etc. Possible dangers were weakened heart action, interfering with convalescence, vascular relaxation, diminished muscular excitability and atonicity during parturition, incomplete retraction of the uterus, subinvolution, spongy condition of the womb, rendering sepsis more liable, interference with oxidation before delivery, thus endangering the life of the child. Although few cases of death had been reported from chloroform in obstetrics, yet it was a question whether some of those reported within twenty-four hours as due to heart clot, etc., were not the result of chloroform. He would not, therefore, administer chloroform unless it were imperatively demanded. If it were employed, he suggested that it might be beneficial to give atropine, strychnine, or some agent which would, in some measure, counteract its influence.

SECTION ON HYGIENE, CLIMATOLOGY, AND DEMOGRAPHY.

Albert L. Gihon, M.D., Medical Director U. S. N., Washington, President, in the Chair; English Secretary, Peter H. Bryce, M.D., Toronto, Can.; Spanish Secretary, Pedro José Salicrup, M.D., New York City.

First Day, Tuesday, September 5th.

This section met conjointly with the Section on Marine Hygiene and Quarantine, at Grand Army Hall. The delegates assembled at 3 P.M., and at 3.15 the meeting was opened, when, on motion, Dr. A. N. Bell, of Brooklyn, took the chair, and then, in due form, vacated it in favor of Dr. A. L. Gihon, Medical Director of the United States Navy, the President of the Section on Hygiene.

Surgeon-General Wyman, Marine Hospital Service, was detained by duty.

The papers listed for the afternoon's meeting were as follows:

1. The opening address, "On Sanitary Motes and Beams," by Medical Director Albert L. Gihon, United States Navy, President of the Section.

2. Normal address on "National Quarantine," by Supervising Surgeon General Walter Wyman, United States Marine Hospital Service, President of the Section on Marine Hygiene and Quarantine.

3. Address in Spanish on "The Sanitary Organization of the Spanish Army," by Dr. Felix Estrada y Catroyra, of Havana, Cuba.

4. Address on "The Proper Status of the Medical Profession in the Government of Nations," by Professor Cornelius G. Comegys, M.D, of Cincinnati, O.

Dr. Gihon prefaced his paper by the text, "And why beholdest thou the mote that is in thy brother's eye, but considerest not the beam that is in thine own eye?" (St. Luke vi. 41, 42.)

These words of the Teacher of Humanity, which the beloved physician of the first century has recorded, are an appropriate text for the opening address in the important section with whose conduct I have been charged in this Congress.

Time was, and that no long time, when Hygeia, the neglected Cinderella of the medical family, shrunk unnoticed among menials: now that she graces the *salon*, her proud sisters caress her and suitors court her favor. As an old admirer of this fair mistress, whose colors I have worn through youth and manhood, I may be pardoned the personal exaltation that I have lived to see her suzeraine.

The ascendency of hygiene has broadened and glorified medicine without dimming the lustre of any other branch; but though her cult is established, her mission has not ended with the recognition of her supremacy and the faithful following of her own ilk. To day she turns to the people and their rulers, outside the medical fold, and demands the place in their councils that is hers of right. A makeshift share in the administration of the sanitary interests of the country has been grudgingly allowed, but the inexorable demand of modern enlightenment cannot be satisfied until the conservator of the public health shall sit a peer among the rulers. The Minister of War may build mighty engines of destruction and defence, and muster vast armies and navies, which disease can disperse with a weapon so tiny that the eye cannot discover and no military expedient antagonize. The Minister of Finance may fill his treasure houses with gold and silver by the ton, which can buy human souls, honor, virtue, independence, everything but the boon of health, God's free gift to men, through which alone he can be like His own glorious image. Commerce, agriculture, manufactures, fishery, mining, and all the industrial occupations of the human race, which are now the objects of the intelligent supervision of cabinet ministers who are grandmasters of political economy and social science, cannot thrive without the vigor of human blood and brains and brawn, which are the machinery of these occupations; yet until this decade it has not been thought that the intelligent supervision of a grand-master of the divine science of medicine was necessary to preserve this vigorous health of the community, without which even these other ministers can themselves only imperfectly perform their own offices of administration.

When I entered the service of the Government of the United States, as an officer in the Medical Department of the Navy, nearly forty years ago, with a minimum of experience and a maximum of enthusiasm, and an exalted opinion of the dignity and responsibility of my charge, which a lifetime has only intensified, I was astonished at the total ignorement of sanitary provision then prevailing in the naval service. Medical officers were curtly reminded that their opinions and advice would be asked when desired; their protests at acts that filled the hospitals and mortuary lists were contemptuously unheeded; they were reproved for officiousness and punished as insubordinate; disabled sailors and marines were discharged, and their places and those of the dead were filled without regret or remorse, but with the shameless boast, "If men die, we can ship others," like the Netherlands commodore, some of whose crew had been killed by the careless firing of a shotted saluting gun, who accepted the apology for the accident with the nonchalant remark, "Dere are plenty more Dutchmen in Holland."

The battleships and cruisers of modern navies are not more like the brigs and sloops-of-war of forty years ago than are the cleanly, well-fed, comfortably clad, and cared-for enlisted men, who go ashore daily, subscribe for newspapers, and write letters, a different race from the begrimed and degraded "shell-backs," who were ordered to their work with curses and punished with brutality for offences which neglect and ill-treatment had incited. The naval and military establishments have considered the beam in their own eyes, but civil authorities are still purblind to the necessity for organized intelligent sanitary supervision and direction, and grope for success only under the flash light of a pestilential visitation.

The following is from a recent editorial, "Whether Cholera has or has not Made its Appearance at Chester," which is practically one of the suburbs of Philadel-

phia: "It is certain that the conditions reported to exist there are in the highest degree favorable for the introduction and spread of that disease. All accounts represent the neighborhood in which the alleged cases occurred as filthy beyond description, and occupied by a class of persons who pay no attention whatever to the laws of health or personal cleanliness. Of course, the country now has the pleasant assurance that the place is to be thoroughly cleaned and effectively quarantined, but why were not these steps, necessary for the protection of the public health, taken before the resulting disease, whether cholera or not, had gained such a footing that already five persons have died from it. The time to lock the stable-door is before the horses housed therein are stolen, and the way to treat contagious diseases is to prevent their appearance, and not wait for them to gain a foothold and then try to stamp them out."

The Secretary General has announced that the proceedings of this section and its congener, the Section on Marine Hygiene and Quarantine, will constitute a special feature of this Congress. It is therefore incumbent upon us before adjourning to declare very positively the opinion of the members of this section—experienced practical sanitarians from every country of the western hemisphere—that the interests of the public health must be entrusted to a department of the government especially charged with their administration, with equal independent executive authority as given to other national departments. Temporizing legislation under the spur of emergencies does not befit this age. As the enlightened physician seeks to prevent his charges becoming ill, so should the guardian of the public health be able to forestall these emergencies, whose pecuniary cost in money expended and wasted, in trade paralyzed and diverted, in labor and wages lost by the sick and terrified and dead, in a single epidemic, exceeds that of maintaining an efficient sanitary service for the whole country for a year.

SECTION ON MARINE HYGIENE AND QUARANTINE.

WALTER WYMAN, M.D., SURGEON-GENERAL MARINE HOSPITAL SERVICE, WASHINGTON, PRESIDENT.

OWING to the absence of Dr. Wyman, on duty, Dr. Gihon presided over the two sections, and as one. They met in the Grand Army Hall, on Tuesday afternoon, September 5th, at 3 P.M.

DR. A. N. BELL, of Brooklyn, took the chair while the president of the section delivered his address.

DR. GIHON'S timely address was well received.

DR. HIBBARD, President of the American Medical Association, followed, supplementing Dr. Gihon's lengthy address. Speaking generally, he said that it was the first consideration and first duty of every government in the world to make its people happy. The first and strongest element is good health, a sound mind, and an upright conscience.

Everything in this world is under the dominion of law. Everything is under the influence of law. It is all God's law. If true to its mission, science's function is to investigate the operations of such laws. Science must interpret them for the benefit of mankind. Many of the laws we cannot change, but we may direct them in one way or the other for the betterment or detriment of mankind. Every step in advance gives us, scientists and sanitarians, new vantage ground from which to make a new attack or charge on behalf of our mission. By extending the benefits of science we shall make the people happy.

Let the Government take every means to advance the study of natural laws. They are susceptible of a good and an evil interpretation. In a "government by the people and for the people" we, as scientists and sanitarians, must have the people with us. We must continue to work on patiently year by year until we reach success. Let human agency give direction. We cannot reach perfection at once. It will take time to bring into subjection all the diseases that invade our land and destroy our people.

DR. FORMENTO, of New Orleans, president of the board of health of Louisiana, addressed the sections on the matters before them, of marine hygiene and quarantine. He was opposed to any central control, such as would be applied in a national board of health. Louisiana was ably qualified to and had protected herself for years past. In short, he was in favor of every State being its own protector. He individually feared interference with State sovereignty. He also feared, that if a central or national board of health was created, politics would exercise a baneful effect. In naming a minister of public health such influences might obtain.

Returning to Louisiana, he said that she had the best quarantine service in the world.

DR. SCALES, of Mobile, president of the board of health for the State of Alabama, referred to some twenty years' connection with quarantine work. Once he also had been a States' rights' man; he had ceased to be (applause); he was in favor of a national system for the protection of all, allowing individual States to do their utmost to keep out pestilence and disease of all kinds.

There was a general and interesting discussion, as over fifty sanitarians and experts in public health and quarantine were present.

DR. DAVIS referred to the excellent work of Surgeon-General Wyman in keeping out disease.

DR. GRANT BEY, of Cairo, Egypt, said that Great Britain was feeling her way for a public officer of health. In Great Britain the local government boards assisted the general government by collecting information of enormous value in such work. He spoke at length, and said in conclusion that if America succeeded in creating a department of public health, with a minister of public health, she will take the first place in sanitary science.

DR. RAUCH, of Illinois, said that his people were in favor of protection such as would be afforded by a national board of health, or its working equivalent, be its name what it may.

DR. LEE, State board of health of Pennsylvania, said that it was a broad question. Local quarantines, local prejudices, and local interests will have more or less force. He believed in an efficient national bureau. Shall it be a national board of health or a department?

DR. SCALES, of Mobile, president board of health, State of Alabama, was in favor of a national bureau of health. He was heartily in favor of yielding the States' rights' point. We want the maximum of protection.

DR. SHAKESPEARE, of Philadelphia, said that the question must be looked at from a general standpoint. It was too broad, too important to be sectional—a national board of health. No State should be allowed to do anything detrimental to the welfare of the body politic. Sanitary science and public health should be placed on the same level as any of the departments of the State.

DR. ATKINSON endorsed previous speakers, and said that a department of State medicine should exist in every nation.

DR. HOPKINS, of Georgia, recognized the necessity for a national board of health.

DR. FLICK, of Philadelphia, said that it was the largest subject that any body of men had ever attempted to discuss. Disease no longer was regarded as a visitation of Providence. We must create laws before we can enforce them. Laws to meet the indications must be created by certain bodies—national, State, city, and borough. Ask the Government of the United States to create a department of public health. Every State should have its department of sanitary science in the same manner that every State has its judiciary. Time, and time alone, can elaborate such a perfect and far-reaching system.

DR. O'DANIEL, of Georgia, said that Georgia had no State board of health. He referred to the recent ap-

pearance of yellow fever in his State. The national Government had to meet the emergency.

Dr. Mulligan, of Oregon, favored a national board of health, under Government control, a charge for the benefit of all. In an enterprise so vast the beginning will be small, but the growth will be steady, the whole of the greatest value to the country and people.

Dr. E. S. Kelly, of Minneapolis, Minn., was heartily in favor of any resolution by which an end so desirable could be brought about. He said that the Northwest depended upon Grosse Isle, in the Gulf of St. Lawrence, Canada, and New York to protect her.

Dr. Lawlor, of Massachusetts, approved any measure of the nature of that suggested. There should be a national standard. States should be compelled to live up to it. An effectual barrier should be placed between us and cholera, small-pox, yellow fever, as well as any and all diseases that may reach our borders.

Dr. A. N. Bell, of Brooklyn, likewise was heartily in favor of such a measure, but feared that local influences might interfere.

Medical Director Albert L. Gihon said that Mexico had a supreme council of health, presided over by Dr. Eduardo Liceaga, present with us. That the United States wanted just what Mexico already had. For a long time the profession had not occupied the position due it. He remarked that we submit to be minified. Medical men should urge these matters for the benefit of the public, and never cease their efforts until the end was attained. A national department of medicine was wanted, composed of medical men, versed in matters of public health and allied themes.

As the result of much discussion, the following resolution was unanimously accepted:

Resolved, That in the opinion of the section on hygiene, climatology, and demography of the Pan American Medical Congress, the interests of public health, in every country, should be and must be entrusted to a department of the Government especially charged with their administration, and that while the precise form of administration may be left to legislation, the indispensable requisites are that it shall be national, that it shall have parity of voice and influence in the national councils, that it shall have independent executive authority, under the limitations common to other departments, and that it shall be entrusted to educated and experienced medical men who alone are competent to assume its responsibilities.

Dr. Hopkins, of Georgia, made a motion, which was seconded and carried: That it is the duty of every State, not having such, to enact laws providing for a State board of health.

The section adjourned until the next day.

SECTION ON GENERAL SURGERY.

Third Day, Thursday, September 7th—Morning Session.

Causes contributing to Failure in the Treatment of Hip joint Disease.—This was a paper by Dr. A. M. Phelps, of New York City, and read by title only. The author then exhibited some apparatus for the treatment of hip-joint disease, support of the spine, and correction of club-foot.

The first exhibition was a corset made of aluminium. This corset was light, strong, and could be used while bathing. It is thin enough to allow a lady to wear an evening dress with it.

A cast of the body is first made, which is sent to the foundry, and an anvil is made and then polished. Over this anvil the sheets of aluminium are hammered to the desired shape, then polished and holes cut through it.

Club-foot Machine.—This is constructed of straps, slides, plates, and levers, and after being adjusted to the foot a pressure of about two thousand two hundred pounds could be applied in any direction required.

Hip-joint splint is so constructed as to give traction in the proper direction. Cases treated with it do not recover with an angular deformity.

Dr. Lee, of Pennsylvania, remarked that he had been trying to obtain an aluminium corset of sufficient strength to give the required support in cases of Pott's disease, but found all his specimens so soft and yielding that they proved to be useless. By the addition of copper and nickel he could obtain the required strength, but they were much heavier than pure aluminium.

In regard to the club-foot machine, can you use this great amount of pressure without risking the crushing of the soft tissues? Also, what is the comparative cost of the aluminium jacket?

Dr. Phelps replied that the jacket was pure aluminium. After about two years of experimentation they found that by heating the sheets up to a certain temperature, and then by working and hammering it well, it became as hard as iron. It cost from $25 to $30 to make one. It is not intended for the treatment of acute cases, but as a brace for cured cases.

The force applied to the club-foot machine should be regulated by the operator, and I have never seen any injury resulting from its use. It is unnecessary to use its entire force, but it is much better to have a machine of great force than one which may lack the required strength in some exceptional case.

Gunshot Wounds was the title of a paper read by Professor Marin, of Puebla, Mexico. A man was brought into the hospital suffering from a pistol shot wound, made by a ball of 44 calibre. The ball entered in front at the root of the neck, passing downward and backward, and out of the body. He was suffering from the effects of profuse hemorrhage; was pale and bloodless. When brought to the operating-room he was unconscious. I made a thorough exploratory examination, and made an incision to find the source of the hemorrhage. I found that in its passage the ball had made a fissure or rent in the wall of the brachio-cephalic vein. The coats of the vein were pinched up and sutured by means of a continuous suture, which arrested all hemorrhage. The next day the wounds of the muscles were sutured, and the man made a good recovery without any symptoms of thrombosis or septic infection.

The paper was discussed by Drs. H. O. Marcy, of Boston, Ernest Laplace, of Philadelphia, Pa., and Rudolph Matas, of New Orleans, La., who congratulated him, not only upon his successful operation, but more especially upon the principles of it, in restoring the circulation to its normal condition, leaving it as before the infliction of the injury.

The Mechanical Treatment of Osteo-arthritis of the Knee was the title of a paper by Henry Ling Taylor, M.D., of New York. Osteo-arthritis of the knee, or "white swelling," is usually a tubercular process, beginning in an adjacent epiphysis or in the synovial membrane, and, if unchecked, finally involves most of the joint structures. It is accompanied by the usual symptoms of chronic joint inflammation, of which spasm and atrophy of the muscles acting upon the joint are practically the most important, as indicating most exactly the degree of joint irritation, and also by certain characteristic deformities at the knee, namely, flexion, eversion, abduction (genu valgum), and subluxation backward of the head of the tibia. The deformities are due to the mechanical conditions under which the spasmodically irritated thigh muscles act.

General Treatment.—Improve the nutrition of the patient, and thus insure a blood-supply of good quality to the diseased area, facilitating the reparative process. One of the most gratifying results of proper mechanical treatment is the marked and speedy gain in general health and vigor.

Local Treatment.—Inaugurate and promote the process of repair at the site of disease, and to prevent or correct deformity, in order to restore, so far as possible, the functions of the joint. These local indications are met by mechanically providing conditions favoring the relaxation

of the spasmodically contracted muscles, a normal local circulation, gradual correction of the deformity, and, later, the protected use of the joint. In the stage of irritation and disintegration strict local rest is enforced by the use of an apparatus giving counter-extension and fixation, and for a month or two the patient is kept recumbent. When the local circulation and position of the limb has sufficiently improved, locomotion is permitted, first with, later without, crutches, but always protected by the apparatus. After this period of enforced rest, and the reparative process is completed, the neuro-muscular apparatus should be regulated and strengthened by allowing limited motion at the joint, and the joint gradually trained to bear weight preparatory to discarding all treatment.

Apparatus.—Any good supporting and protective apparatus, with a lock joint at the knee, such as the Dow apparatus, answers all ordinary purposes. It should afford absolute protection from external and internal trauma, with progressive replacement of distorted parts at all stages; first with enforced disuse, later with protected use, limited by the operator to meet all conditions present.

Improved Long-traction Hip-splint, with Proper Method of Applying Adhesive Plaster for Counter-extension.—This splint was demonstrated by Dr. Henry Ling Taylor, of New York. The splint consists in a hollow shank, firmly attached at its upper end to a side-plate, from which strong curved steel horns spring to carry the perineal strap. In the hollow shank plays a notched bar, which is worked by a key, bent under the foot at a right angle to give attachment to a strap which is buckled to two strips of diachylon plaster, each ending in a buckle just above the malleoli. The strips are one and one-half inch wide and long enough to reach from just below the level of the groin to two inches above the malleoli, on the outer and inner aspects of the limb, respectively. To each plaster are sewed two tails of three-quarters of an inch rubber plaster, above the knee and at the lower end. With both long strips in position, the narrow strips are to be evenly wound in a spiral direction upward around the limb, beginning with the upper pair. They should be held in place by a bandage or laced legging. Plasters applied in this manner pull from the thigh, so that the knee is protected, and give a firm basis for continued traction. The improvement in the apparatus described, over the original Taylor hip-splint, consists mainly in the substitution of the strong curved steel horns of peculiar shape for the horizontal hip-band formerly used. The change was made on account of the greater comfort and convenience of the new arrangement, but chiefly to give greater rigidity to the apparatus.

Improved Apparatus for Pott's Disease was a paper by Dr. H. L. Taylor, of New York, and read by title only, followed by an exhibition and demonstration of the apparatus.

It was devised by Dr. C. Fayette Taylor, and differs from that shown to the New York State Medical Society in 1863 in the following points: 1. The parallel vertical bars have been lengthened, and end in hooked pieces passing well over the shoulders near the neck. 2. The hinges differ somewhat in construction and are screwed to the bars, being retained solely for the purpose of facilitating the modification of the apparatus corresponding to the varying indications of the case. 3. The horizontal hip-band is discarded, and replaced by a rigid steel bar or vertical hip-band having the shape of an inverted U; to the upper part of this band the lower ends of the vertical bars are firmly attached. The ends of the ∩-shaped band are fitted into the post-trochanteric sulcus on either side, and together with the hooked pieces at the root of the neck fix the apparatus laterally, besides assisting in antero-posterior and vertical fixation. The lower ends, being points of contact with the skin, are protected by hard-rubber plates. 4. Hard-rubber pads are used, instead of the soft pads formerly employed, to transmit the leverage of the apparatus to the region of the spine which it is desired to protect. 5. Instead of the straps encircling the arm, formerly used to get a fixed point for counter-force in front, a "chest-piece" is employed, consisting of two ear-shaped or triangular hard-rubber pads, fitted under the clavicles and resting on the pectoral muscles, and joined by a stiff steel bar, curved forward to escape the chest, and so contrived that the distance between the plates may be increased or diminished at will. The chest-piece being in position, is buckled to straps coming from the ends of the shoulder-hooks above, and below it is strapped to a buckle at the angle of the ∩-hip-band on either side, thus leaving the arm free and the axilla untouched. 6. The apron which holds the whole apparatus forward reaches to the posterior border of the axilla on either side, and from the trochanter to the arm laterally, and is secured by straps and buckles to the apparatus. 7. Perineal straps pass from the lower border of the apron in front, under the thighs, to the ends of the vertical hip-band.

It is to be understood that appropriate modifications of the form of the apparatus are made to correspond with the indications presented by disease in the different regions of the spine, and by the character and amount of the deformity. Most cases above the eighth dorsal will require, in addition, Dr. Taylor's circular pivoted head-support or chin-rest, which is easily fitted to this apparatus.

Apparatus for the Correction of Talipes Equino-varus and for the Retention of the Corrected Foot.—This apparatus was exhibited by Dr. H. L. Taylor, of New York. The essential points in the method of its use are: 1. The preservation of the heel cord as an aid in unfolding the foot. 2. The gradual reduction of the varus deformity first, afterward of the equinus. 3. Exact prehension of the foot by means of an apparatus not attached to the shoe, and by adhesive plaster applied to the leg. 4. The application of leverage to the inner side of the foot and leg. 5. Thorough mechanical after-treatment.

Gastrostomy for Relief of Œsophageal Stricture was the title of a paper read by Dr. Ernest Laplace, of Philadelphia, Pa. My case was that of a man who had been healthy all his life, who gradually developed a difficulty in swallowing, until finally he was unable to swallow even water. The smallest-sized tube could not be passed by the stricture. We performed gastrostomy. We first sutured the stomach to the abdominal wall, and, on the third day after, punctured the stomach wall with a thermo-cautery and fed the patient with peptonized milk. After a few days the patient was allowed to chew his food before it was placed in the stomach. In a short time, to our surprise, he was able to swallow his food without difficulty. The patient was anæsthetized for the purpose of closing the gastric fistula. Upon making an examination of the interior of the stomach with one finger, as far as we could reach, we found a pediculated mass, which evidently was at first a polyp which afterward had become pediculated. The stomach was closed without the removal of the growth, which may in time be digested. Since the operation the patient has experienced no further trouble from the growth.

A second case of stricture which I operated upon, dilating the œsophageal opening, also made a good recovery and has gained twenty-five pounds since the operation.

Dr. Heuff, of San Antonio, in discussing, said, I performed such an operation on a girl, in 1878, who made a good recovery and is alive to-day. At first the food was fed without allowing the patient to chew it. The result was a steady loss of flesh; but as soon as she was allowed to chew her food the mixture of the saliva seems to have had a marked effect upon her general health, and improvement thereafter was uninterrupted.

The paper was further discussed by Dr. Ernest Laplace, of Philadelphia, Pa.

Orthopedic Treatment of Infantile Paralysis was the title of a paper read by Dr. L. A. Weigel, of Rochester, N. Y. In this paper he laid special stress upon the fact that the prevention of resulting deformity is much easier

than the subsequent management of the same. The importance of artificial supports are not fully appreciated by the general practitioner, who should not depend upon drugs, but should adopt some form of support at once which will keep the limb in its normal position.

Gymnastic Apparatus for Scoliosis.—This paper was read by title only, by Dr. L. A. Weigel, of Rochester, N. Y., who then proceeded with a demonstration of the apparatus, together with a paper jacket made of alternate layers of paper strips and linen.

Transplantation of the Conjunctival Membrane from the Eye of the Rabbit to the Human Subject was the title of a paper by Professor J. R. Wolfe, of Glasgow, Scotland, who gave a demonstration of his method as follows: My instruments consist of a common dressing-forceps, spatula, and blunt-pointed scissors. The rabbit is chloroformed, then with a straight needle I pass a fine silk ligature between the conjunctiva and the membrane of nectitens, at different points, which serves the purpose of marking out the piece to be dissected off as well as lifting it up. The ligatures are slightly stretched and the piece dissected off. This piece is then spread upon the dorsal surface of the hand, where it will dry and remain perfectly flat. By the time the field upon which it is to be transplanted is prepared, the dissected piece of conjunctiva will be as stiff as parchment. It is lifted off the hand with the spatula and placed upon the prepared field, where it will adhere without any curling up or other difficulties, and a few requisite sutures complete the operation.

Transplantation of Skin Grafts to the Eyelid was the title of a paper also by Dr. Wolfe, of Glasgow. I first stitch both eyelids together; then dissect up the outer portion of the upper, or both lids, as the case may require, getting a clean raw surface upon which to place the grafts After obtaining my grafts from the arm or elsewhere, I wash them in warm water, and spreading them upon my finger carefully remove all adhering substances. They are then placed upon the prepared lids, without sutures, and a simple dressing of lint dipped in warm water applied. In taking measurements for the graft required I always carefully allow for shrinkage.

The Technique of the Plaster-jacket was read by title only, by Dr. Reginald H. Sayre, of New York City, who then, with the aid of a young female patient, proceeded to give an actual demonstration of making and applying the jacket upon the patient while partially suspended by the head and arms. He used corn-plaster felt for padding, to avoid too much pressure. In young, growing females breast-pads should be used, so as to give the mammæ an opportunity to grow. Place pads over all bony prominences. With the patient partially suspended, the operator nips the child between his knees to steady her and proceeds with the application of the moistened bandages. Bandages should be washed before the plaster is applied to them, and then hand rolled. Begin at the waist first, and the meshes should be rubbed very closely together while being applied. Make the jacket longer than necessary, and trim it down afterward. Make it thicker at the waist. Run the strips up and down in a zigzag manner. Slit the jacket with a common pruning-knife. When thoroughly dried, put it on the child, trim out the armpits and flexors of the thighs.

A Bandage for Protecting Skin Grafts after being Applied to Wounds was the title of a paper by Dr. Oscar J. Mayer, of San Francisco, Cal., accompanied by a demonstration showing how the after-treatment was simplified; the results obtained were claimed to be more satisfactory, and the period of healing considerably shortened.

In what Class of Cases is Drainage Required? Read by Dr. H. O. Marcy, of Boston, Mass. In all wounds we must take into consideration the condition and various resisting powers of the individual patient, together with the character of the injuries and ensuing complications.

In almost every operation, if the operator is as careful as he should be in sterilizing all materials, including the hands of himself and his assistants, and carefully close the wounds, there will be use for neither drainage nor antiseptics. All healthy tissues have a certain amount of resisting power to protect themselves from infection. All aseptic wounds should be carefully closed and covered with iodoform collodion. Drainage in aseptic wounds is unnecessary and dangerous, and without drainage, clumsy antiseptic dressings in aseptic wounds are avoided. Better knowledge of wounds will restrict drainage to those of a septic character alone.

In the discussion which followed Dr. Quimby agreed with the author that drainage tubes were foreign bodies, and, unless carefully watched, were a source of danger.

Dr. McRae, of Georgia, claimed his experience in the use of iodoform collodion in wounds over bony prominences was, that although he used soft padding underneath, the contraction due to the collodion had produced pressure necrosis, and he therefore was not in favor of its use.

Dr. Prewt, of St. Louis, claimed that the fluids of the body were not septic, but where one expected a large amount of exudation he had better use drainage; otherwise, not.

Dr. McCosh, of New York City, did not approve of indiscriminate drainage, but thought it unwise to sew up a wound too tightly and cover it with an impervious dressing, especially where all bleeding had not stopped. It is better to leave a little space between the sutures, or else slip in a few strands of silkworm-gut and allow the fluid to ooze out. If in the abdominal cavity, I flush it with hot water, but unless some indication calls for it, I insert no drainage-tube.

Dr. Laplace agreed with Dr. Marcy in every particular.

Dr. Oscar J. Mayer, of San Francisco, differed with Dr. Marcy in many essential points.

Dr. Jacob Frank, of Chicago, claimed, in his hospital experience that he could not get more than fifty per cent. of the wounds to heal without some suppuration, be it never so slight, and this, too, notwithstanding all careful sterilization before and during the operation, and believed many cases might be classed as auto-infected.

Before operating, the surgeon should have a thorough knowledge of the condition of every organ in the patient's body, and then use his own judgment as to drainage. He was at a loss to understand what harm a thoroughly sterilized drainage-tube could do in the wound.

The paper was further discussed by Professor Lavista, of the City of Mexico, and the Chairman, who claimed we had not yet reached a stage where we could be absolutely certain of the aseptic condition of any wound.

Dr. Marcy closed the discussion by saying that when closing a wound he approximated the edges of each individual structure very thoroughly.

Afternoon Session.

Report of Four Cases of Brain Surgery, read by Dr. Andrew J. McCosh, of New York City. No general conclusions can be drawn from these cases, but each one has points of special interest.

Notwithstanding the accuracy in the localization of the cerebral functions, the results of operative treatment, so far as cures are concerned, are little better than those obtained a score of years ago, and but little light has been thrown upon the treatment of epilepsy, with the single exception of certain Jacksonian cases. Each of the following cases contains some points of special interest, but no general conclusions can be drawn from them:

Case I.—Aged eighteen; extra-dural hemorrhage. Convulsions on tenth day. Trephining. Removal of clot. Recovery.

The patient, male, fell into a trench and brought to hospital eight hours afterward. Temperature, 100° F.; pulse, 76. During first twenty-four hours aroused with difficulty, then steady improvement up to end of the eighth day. On the ninth night a convulsion. Tenth

day, another convulsion with symptoms indicating pressure on the lower posterior part of the motor area of the left side.

Operation.—A button of bone was removed from over the fissure of Rolando, exposing a blood-clot. The opening was increased to two and a half inches, and the clot, three fourths of an inch in thickness at its centre, removed. The dura was not opened. The bone was replaced.

Result.—At 7 P.M. there was a slight convulsion, limited to the right leg and hand. There have been no further symptoms, and the patient made a good recovery.

CASE II.—Aged six. Extra-dural hemorrhage. Paralysis and convulsions. Trephining on eighth day. Removal of clot. Recovery.

History.—Patient fell down stairs, forty-eight hours afterward, admitted to the hospital partially unconscious. Fourth day, improvement commenced and continued until seventh day, when there was a distinct convulsion limited to the upper left extremity, lasting one minute. In the afternoon there was another convulsion involving the entire left upper extremity, and toward evening left upper and lower extremities were completely paralyzed, as well as the left side of the face, followed by two more convulsions during the night. Mental condition remained bright.

Operation.—Upon removing a button over the fissure of Rolando, a fissure of the skull was found running from above downward and backward, forming a triangle, which was cut away. The dura was rent for a space of one inch. The clot was found and removed, but no attempt made to suture the rent in the dura, as the edges could not be approximated, and the brain-tissue at this point appeared disintegrated superficially.

Result.—Upon recovering from ether there was ability to move the left arm for a short time, with a return of the paralysis as complete as before for the next twelve hours, but without convulsions. During the next twenty-four hours marked improvement began without interruption, and at the end of two weeks was out of bed, and has since remained in good health, attending school, without any return of the convulsions or paralysis.

CASE III.—General epileptiform convulsions, stupor, and delirium. Trephining in right occipital region. Œdema of brain. Aspiration and drainage (for two days) of right lateral ventricle. Recovery.

No convulsions since operation, and patient perfectly well (five months).

This patient had occasional attacks of unconsciousness extending over a period of seventeen years. There being no convulsions present, it is doubtful if the attacks were those of true epilepsy.

History.—At the age of twenty-nine patient fell down stairs and developed partial paralysis of the left arm, which gradually disappeared. He was admitted to the hospital on October 29th; November 10th he had a distinct convulsion lasting ten minutes.

No further convulsions until December 3d. He left the hospital on December 7th, but returned on January 4th. Had several convulsions up to January 25th, after which the convulsions numbered about five to the twenty-four hours.

Operation.—Although, owing to his weakened condition, operative measures were contra-indicated, yet he was losing ground so rapidly we were obliged to do the best we could. On January 31st a one and one-fourth inch button of bone was removed from over the lateral sinus. No evidence of clot was found and the pia looked normal, but there was evidence of great internal pressure, which caused the brain to bulge out through the opening even when the patient was raised to a sitting posture.

No tumor being felt, a diagnosis of fluid was made. A hypodermatic needle thrust in three different directions brought no fluid to light, but the insertion of a long needle into the right lateral ventricle disclosed the fluid. A cannula was inserted and left in place for drainage. About an ounce of fluid was the entire amount drained off, and in forty-eight hours the cannula was removed.

Result.—After February 3d the patient improved rapidly, with no signs of convulsions since, with reflexes normal, and no paralysis. At the end of two weeks patient was out of bed, but his memory of the events of the past year was defective. He made an apparent good recovery, and has been pursuing his daily labors for the past five months, free from headache or tenderness over the cicatrix. What the causes of the grave symptoms were, it is difficult to say, but I think the cicatrix in the dura was the cause of accumulation of intercranial fluid. There can be no doubt of the operation saving his life.

CASE IV.—Aged seven. General convulsions and partial paralysis of right arm and leg. Trephining. Dura opened. Thin membrane, old organized blood-clot found over motor area. Removed. Recovery. Paralysis improving, no change in convulsions (four months).

History.—First convulsion occurred at the age of eighteen months, lasting several hours, causing partial paralysis of right arm and leg for several weeks, and then disappeared. At the age of four had several convulsions. At five, very severe convulsions; since which time partial paralysis of the right arm and leg continued.

Diagnosis of pressure on the motor area of right arm and leg was made by Dr. M. A. Starr, who advised an opening to be made over the arm centre.

Operation.—A button was removed from over the fissure of Rolando, about two inches to the left of the median line. The opening was enlarged downward and forward and the dura incised.

Removal of Clot.—Lying on top of the pia was a reddish translucent membrane, which was removed. Œdema of the pia was marked.

Incision of the Pia.—Several incisions of the pia were made, allowing several ounces of fluid to ooze out, leaving the surface of the brain depressed as though the convolutions at this point were atrophied.

The dura was replaced and sutured, but the bone was not returned.

Result.—For three weeks following there were no special changes for better or worse, the convulsions and paralysis continuing as before.

It is now five months since the operation, and although the convulsions have not been modified, the child is brighter and improvement has taken place in the paralyzed muscles, but they are weak and lack proper co-ordination.

The membrane removed was undoubtedly an original blood-cot, and the most probable cause of the hemorrhage being a pachymeningitis hæmorrhagica.

Conclusions Drawn.—The mere removal of a button of bone from the skull seems to improve nearly all epileptics for a few months, and it is rather misleading to report upon the condition of these patients before sufficient time has elapsed for the disappearance of the amelioration, which may be attributed to the operation *per se*.

In the discussion which followed, DR. HEUFF, of San Antonio, cited several cases upon whom he had operated, but after being relieved for a time the convulsions returned. One case given as an illustration was that of a lady, who for about eight months after the operation was entirely free from convulsions. At the end of the eight months she came to his office, was very profuse in her thanks for her cure, became excited, and fell on the floor in a convulsion, and has had them ever since.

DR. FRANK, of Chicago, said most of his cases resulted in the same manner as those of Dr. Heuff.

DR. QUIMBY, of Jersey City, had one typical case such as Dr. McCosh's, and two years have elapsed since the operation, with no return of symptoms; but, as a rule, he thought in children the results were not good.

DR. MCRAE, of Georgia, said if we wish good results we must operate before the fits commence. He has operated on recent cases, and so far no convulsions have supervened.

Treatment of Multiple Urethral Strictures of Gonorrhœal Origin, by Combined Internal and External Urethrotomy and Vesico-urethral Drainage, was the title of

a paper read in Spanish by Dr. Juan Martinez del Campo, of Mexico. All the methods that have been recommended for the cure of multiple strictures of the urethra of gonorrhœal origin have not been followed by permanently curative results, and a relapse invariably occurred, sooner or later. This is a matter of daily observation, alike in gradual dilatation, internal or external urethrotomy.

In all my cases where I used urethral and vesical drainage subsequent to internal and external urethrotomy, I obtained better and more permanent results than could be had by any other method of treatment. My conclusions are based upon about one thousand cases, who have been kept under observation during a period of ten years, about one-fourth of whom had been operated upon by this method several years ago, and whose urethræ have been examined after a long post-operative period, and in no single instance has there been a relapse.

The permanency of the cure I believe to be due to the effect of the drainage-tube or catheter, which is allowed to remain for a variable length of time, causing an acute suppurative urethritis, which has a tendency to disintegrate the embryo-plastic tissue composing the stricture

Anæsthesia: The Technique of Chloroformization, was the title of a paper read in Spanish by Dr. Angel Contreras, of Yucatan. The author gave his experience with many thousands of cases where chloroform had been used, and his conclusions were that, properly administered, it was not a dangerous anæsthetic.

Dr. Hamilton, of Chicago, in discussing this paper, said each of the anæsthetics in use had its good and bad features. We should use that one which in our judgment appears best adapted to the individual case. If albumin is found in the urine, ether should be avoided. If there is feeble heart action, the A. C. E. mixture would be useful.

Dr. Hare, of Philadelphia, thought the profession resorted to anæsthesia too much as a matter of routine. In the last few years Dr. Montgomery, of Philadelphia, had used bromide of ethyl in several hundred cases, with satisfactory results. Dr. Hare further thought the relative value of the various anæsthetics could be settled by employing the one suitable for the individual case. In his statistics, collected from physicians all over the United States, the majority claim death in chloroform anæsthesia occurred with failure of respiration before the heart ceased to beat; and that it was the respiration and not the heart which should be watched. Personally, he thought ether was the safest and did not require such careful watching.

Dr. Randall, of Texas, said if Dr. Hare pursued his search further, he would change his mind. From his own experience he found chloroform killed by paralyzing the heart. He cited one case where the pulse had ceased and the patient was apparently dead, excepting that he still breathed. The physician administering the chloroform had watched the pulse, otherwise the patient would have lost his life. In the South we look upon chloroform as safe if the heart is carefully watched.

Dr. Ernest Laplace saw thousands of cases of chloroform administration in Europe, with but six deaths. In Philadelphia he used ether, and never saw a death from it. In New Orleans, where he used chloroform he always did it with fear as to the result. With ether in Philadelphia, he now had no fear.

Dr. Hare replied that he did not advocate ether or chloroform. In the long run chloroform was the most dangerous. He believed it killed mostly through respiration; sometimes by the heart.

Dr. Thomas H. Manly, of New York City, said ether should have the preference whenever it could be had. The number of deaths from chloroform are greater than we know of, as many of them are concealed. I have never seen a death from ether here or abroad. At present we use anæsthetics too frequently.

Dr. Quimby said, while it required less skill to administer ether, chloroform had the least effect upon the kidneys.

Torsion and Homologous Ligation of Divided Arteries, was the title of a paper by Thomas H. Manly, of New York City. Homologous ligation of divided arteries consists of a section or sections of the superfluous ends of the vessels in amputations. Then a furling and tying of the vessel on itself in such a manner as to occlude the lumen of the trunk with its own walls; a veritable living ligature. He had carried experimentation upon the dog, and made sufficient observations upon the human being to fairly test the expediency of this procedure. The ideal in the obturation of divided arteries will be attained when every description of extraneous ligature can be eliminated in amputation cases. Primary union would succeed under one dressing. Homologous ligation had its limitation, but with the utilization of torsion there is almost no artery in the body which could not be definably and permanently closed without the employment of ligatures of any sort of foreign substance. Perfect asepsis is the *sine qua non* to success in this procedure.

He adverted to the fact that modern studies have revolutionized our views on the question, the technique of the ligation of arteries; and now we did not aim to divide the internal coat or secure a clot, because it has been proven that neither is essential to effectually close the vessel's lumen.

The paper was discussed at length by Drs. Brock and Ross, of Richmond, Murphy, of Chicago, Kirnan, of Wilkesbarre, Pa., and Steman, of Fort Wayne, Ind.

Bi-lateral Perineal Incision for the Removal of Phosphatic Calculi, was the title of a paper by Dr. D. Ford, of Augusta, Ga. The patient was twenty-two years of age, whose first symptoms began at the age of nine. The diagnosis being readily made, the bi-lateral perineal operation was performed, and a large phosphatic calculus, about the size of a goose egg, weighing ℥ iij., ℥ ij., was removed.

Fourth Day, Friday September 8th — Morning Session.

Empyema and its Proper Surgical Treatment was the title of a paper read by Dr. Carl Beck, of New York City. The essential question in this paper was, which of the three methods of treatment used—aspiration, incision, or resection—gave the best result. From his personal experience, together with statistics collected, it proves resection the method of treatment for obtaining the best recovery. Resection, he found, was gaining ground daily among surgeons. Some surgeons have been in the habit of making an incision first and then use drainage for a time, and if no good results are obtained, follow it up with resection, which only causes unnecessary delay, and in many cases makes the prognosis bad. The prognosis of any case depends entirely upon the early diagnosis made by the practitioner and the method of treatment adopted by him. In using a hypodermatic needle for diagnostic purposes sometimes the pus will be too thick to flow through the needle, and in case it fails to appear, if you will unscrew the syringe, leaving the needle inserted, and then push a wire through, upon withdrawing the wire you will find the end covered with pus.

Aspiration.—Absorption can only take place under the most exceptionally favorable circumstances, therefore in the large majority of cases treatment by aspiration alone only drags the case along until the patient's vitality sinks too low for resection to save him, and it is from just such cases as these that the opponents of resection gather their statistics.

Incision.—This method of treatment will permit of drainage, but there are always adhering lumps to be found upon the surface of the pleura which no amount of drainage or washing can remove. They must be picked off with the finger.

Resection.—Is by far the best of all methods. We are

then enabled to sweep the finger around inside, opening up any pockets, and tear off all adhering lumps and thoroughly cleanse and drain the cavity. In making a resection, if the operator is careful to preserve the periosteum, the rib will grow again. After making a resection I do not immediately insert a drainage-tube. If a tube is inserted at once, owing to the fact that the movements of respiration will cause the tube to irritate the surfaces, you will cause more or less hemorrhage. I usually wait three days before inserting it.

In conclusion, I will say that resection is safe, clean, and easy to perform, and gives by far the best results. I do not, however, approve of the method of resection recently recommended in Germany.

The following papers were read by title only: "Ununited Fracture," by Lewellyn Eliot, M.D., of Washington, D. C.; "The Probable Cause of the Limp of the First and Second Stages of Hip-disease," by Harry M. Sherman, A.M., M.D., of San Francisco, Cal.; "The Treatment of Pott's Disease of the Spine," by A. B. Judson, M.D., of New York City; "A Case of Acute Arthritis of the Hip of Infants, with some Remarks on the Etiology of the Affection," by Augustus Thorndike, M.D., of Boston, Mass.; "A Contribution to Rectal Surgery," by H. M. Bishop, M.D., of Los Angeles, Cal.

After a vote of thanks by the section to the officers the session was closed by the President, Dr. John B. Hamilton, of Chicago, Ill., who thanked the members of the section for the interest manifested by them during the proceedings, and regretted the fact that owing to the regulations as to time limit in reading papers and discussions, many of the papers were cut short and not properly read, and in some few cases there was no time for discussion at all, but for this he was not responsible.

Professor Lavista, of the City of Mexico, and Dr. Rudolph Matas, of New Orleans, La., thanked the section on the part of the Honorary Presidents of the Section, and for the courtesy shown the Spanish-speaking members. The section then adjourned.

SECTION ON DISEASES OF THE MIND AND NERVOUS SYSTEM.

First Day, Tuesday, September 5th.

Dr. C. H. Hughes, of St. Louis, President, in the Chair.

Address of the President.—After welcoming the members present, and before proceeding to the scientific work of the section, he noted some of the neurological advances of our day, and especially the contributions of neurology to general medicine and the consequent welfare of the world. He referred at length to the brilliant achievements of American neurologists, and gave a brief historical sketch of the work accomplished during the present century. In conclusion, he said that America breeds and develops neurologists as the water breeds and develops fishes. The pabulum neurology feeds on is in the American people—their hustling, rushing habits, their business, professional, social, and political environment, and the numerous newspapers they read every morning before breakfast and every night before they forget to say their prayers—this moral, political, social, and business atmosphere of ambition and bustle, tends to develop the strongly endowed, neurologically and psychologically, as it tends in the weakly endowed to the development of neuropathic conditions. It develops neurologists and psychologists to care for the neuropaths. It builds and it breaks the nervous system. It cannot yet be said that we are a neuropathic people, though we are tending that way; but neurology is advancing with equal pace with neuropathic break-down, and will, it is hoped, ultimately enlighten and save the people from their neuropathic sins.

Dr. William A. Hammond, of Washington, D.C., then delivered a short address in Spanish, which was responded to by Dr. Manuel Carmona y Valle, of the City of Mexico.

Cerebral Spastic Paralysis in the Adult.—Dr. Carmona then read a paper with this title.

The Prognosis of Railway Spine. by Dr. F. X. Dercum, of Philadelphia. He described briefly a case in which a blow to the back had been followed by the usual symptoms of painful back associated with neurasthenia and hysterical symptoms. The case was considered as a typical "Railway Spine" so-called, without the element of litigation. It was therefore considered as a suitable case upon which to test the possibilities of the rest cure, and which might perhaps enable us to answer the question so often asked of the expert in court: "Will the patient recover, and if so, how long a time will it require?" After five and a half months of treatment in a special hospital an almost complete recovery ensued. The medico-legal value of the result was also considered.

Dr. Brower, of Chicago, thought that the paper presented many valuable suggestions as to diagnosis. The cases of "Railway Spine," as seen in Chicago, seemed to be of a different character. There were not so many objective symptoms. The symptoms in Dr. D.'s case were undoubtedly either of neuritis or meningitis.

Dr. Fuller, of Grand Rapids, had seen a case with similar symptoms repeatedly relieved by opening the spinal canal and evacuating some of the accumulated fluid.

Dr. Dercum, in concluding, said he had seen many cases in Philadelphia. He thought the muscles and ligaments suffer most, and that the psychic symptoms indicated neurasthenia.

Treatment of Cerebral Hemorrhage.—This was the title of a paper by Dr. D. R. Brower, of Chicago. He referred to the various methods of treatment with the view of controlling arterial tension and diminishing arterial degeneration. He also spoke of strychnine and the application of the galvanic current to the brain for the relief of the hemiplegia.

Dr. W. M. Leszynsky, of New York, said that the subject was of the greatest importance to the general practitioner, and it required a comprehensive knowledge of general medicine to manage this class of patients. He thought that such a complication as anchylosis of the shoulder-joint was generally avoidable in hemiplegics if passive motion were begun early.

Dr. Hare, of Philadelphia, did not believe that the galvanic current acts directly upon the brain structure, but may hasten absorption in a reflex manner.

Dr. Carmona, of Mexico, considered electricity of no value when secondary degeneration has occurred.

Dr. Roque Maconzet, of Mexico, was of the same opinion.

Dr. Dercum opposed the use of strychnine on account of the probability of hastening contracture. He agreed with Dr. Hare in reference to the use of electricity.

Dr. Hughes thought that galvanism does not always produce its direct action on the brain, but it is not impossible for the current to pass directly through the brain in the living body.

Dr. A. D. Rockwell, of New York, believed that the symptoms produced seemed to indicate that the current acted directly on the brain.

The discussion was closed by Dr. Brower.

Second Day, Wednesday, September 6th.

Morning Session.

Organic and Mental Co-ordination.—Dr. William Fuller, of Grand Rapids, read a paper with this title. The intention of the writer was to point out the relations existing between the nutritive conditions of the organs of the body and the mental feelings related to the individual organs, which are not only co-ordinated in their nutrition from the blood, but are also co-ordinated by nervous connections so as to produce a frame of mind which cor-

responds to the general nutritive condition of the organs of the body as a whole. The practical conclusion is that the mind may be influenced by alterations of the physical processes and that the nutrition of the body is influenced by the mental states of emotion and belief. Illustrations were made in support of the theory advanced. In the opinion of the writer the cerebellum is the brain of the organic nervous system, and though it is not the seat of the emotions, which are conscious feelings, and properly belong to the cerebrum, yet these feelings are produced by cerebellar states.

Dr. Brower said it was to be regretted that Dr. Fuller did not give his reasons for assigning functions to the cerebellum which were attributed to it many years ago.

Should Inebriates be punished by Death for Crimes committed while Intoxicated?—This paper was read by Dr. T. D. Crothers, of Hartford, and the following conclusions were drawn:

1. The legal treatment of insanity has changed in obedience to a more accurate knowledge of the brain and its diseases.

2. The legal treatment of inebriety is unchanged to-day. Although it occupies two-thirds of the time of courts, all teachings of science and a larger knowledge of the inebriate and his malady are ignored.

3. The ruinous error of punishment by fines and imprisonment of inebriety, and petty crimes associated with it, which notoriously increases and perpetuates the inebriate and criminal, is a fact demonstrable in every community.

4. Thus public opinion, through mediæval theories and laws, is training and preparing a class of inebriates who first commit petty, then capital crime, with a certainty that can almost be predicted.

5. The death-penalty for such crime utterly fails for the same reason. The execution of any number of this class simply opens the door for an army already prepared and trained to take their places.

6. From a scientific study of these cases, it is clearly apparent that they are diseased and incapacitated to act sanely. Alcohol has palsied the brain and made them madmen. The very fact of continuous use of alcohol is evidence of mental impairment and unreasoning act and thought.

7. To hold such men accountable for their acts, and by punishment expect to deter them from further crime, and by such punishment check others from similar crime, is an error which both scientific teaching and experience point out.

8. The object of the State, through the law, is to protect society and the individual; but if the execution of the law-breaker fails to accomplish this end, the laws are wrong.

9. The unfounded fear that the plea of insanity in crime, and the failure to punish, is an encouragement for further crime, is flatly contradicted by statistics.

10. Among the mentally defective, the insane, and inebriates, the death-penalty is followed by an increase rather than a diminution of crime.

11. The inebriate should never be hung for crime committed while under the influence of alcohol.

12. This method of punishment is never deterrent, but furnishes an attraction for other inebriates who commit similar crime in the same way, following some law of mental contagion.

13. The inebriate murderer should be confined the rest of his life in a military work-house hospital. He should be under the care of others, as incapacitated to enjoy liberty and incompetent to direct his thoughts or acts.

14. A change of public sentiment and law is demanded, and a readjustment of theory and practice called for. The criminal inebriate occupies a very large space among the armies of the defective who threaten society to-day, and his care and treatment must be based on accurate knowledge, not theory.

15. Inebriate murderers should never be placed on public trial, where the details of the crime are made prominent or the farcical questions of sanity are publicly tested. They should be made the subject of private inquiry, and placed quietly in a work-house hospital, buried away from all knowledge or observation of the world.

16. The contagion of the crime and punishment would be avoided, and the inebriate's services might repair some of the losses to society and the world.

New Process for Extracting the Essential Principles of Certain Animal Organs, and on their Physiologic and Therapeutic Properties.—This was the title of a paper read by Dr. W. A. Hammond, of Washington, D. C., with the following summary:

1. It is possible, by the process described, to obtain from the tissues of the various organs of the body, such as the brain, the heart, the spinal cord, the testes, the ovaries, the muscles, the thyroid gland, substances which are possessed of powerful physiological and therapeutical properties.

2. There is much evidence to show that the active principle of each of these animal extracts acts by preference on that organ of the body which is analogous with that from which it has been derived. Thus, "Cerebrine" particularly affects the brain; "Medulline," the spinal cord; "Cardine," the heart; "Testine," the sexual system of males; "Ovarine," the sexual system of females; "Musculine," the muscles; "Thyrodine," the thyroid gland, etc. And this not only physiologically, but to some extent, at least, in suitable cases, therapeutically.

3. It is not yet determined whether the active principle (or principles, for there may be more than one agent in each) exists primarily in the organs acted upon by the menstruum, or is a secondary product of the nature of leucomaine. They all act, in the first place, as disturbers of the vaso-motor system, some of them producing a paralyzing, and others a spastic effect.

4. Neither is it always the case that this effect is the same in all instances with the same extract. Thus, "cerebrine" although generally causing a sensation of fulness in the head, slight headache, flushing of the face, suffusion of the eyes, etc., sometimes produces paleness, slight vertigo, and a sensation of faintness.

5. This variability is apparently due to the size of the dose, the state of the system at the time of administration, or the nature of the disease for which the extract is given. In these respects there is an analogy with the action of other substances used as medicines, and with that of certain remedial agents. Among the first named are opium and its active principles, quinine, cocaine, alcohol, etc.; among the latter, electricity, heat and cold, massage, exercise, etc. In the use of these extracts, as well as in the employment of every therapeutical agent, it is necessary for the physician to familiarize himself as thoroughly as possible with the constitution, habits, and inherent proclivities of his patients.

6. No ill effects, general or local, have ever in my experience followed the administration of any of these animal extracts, whether they have been given hypodermically or by the mouth. The dose is so small that when taken upon the tongue it cannot be swallowed, but is absorbed rapidly from the mucous membrane of the mouth.

7. Finally, while it is too soon to obtain definite results relative to the effects of these extracts in curing organic diseases, there is abundant evidence to show that they exert a beneficial influence in such affections, and that they are rapidly curative of many so-called disturbances. This is especially the case in regard to "cardine" in certain cardiac disturbances, "cerebrine" in nervous weakness (neurasthenia), and "testine" and "ovarine" in aberrations of the sexual system in males and females, respectively.

Dr. C. H. Hughes thought we were in danger of falling into the same attitude of scepticism in this matter as was shown toward Jenner, Morse, and Cyrus Field. He looked forward to great possibilities from the employment of animal extracts.

AFTERNOON SESSION.

Symptoms and Treatment of Partial Epilepsy.—This paper was read by DR. ROQUE MACONZET, of the City of Mexico. His method of treatment was governed entirely by the cause of the disease. He believed that anti-syphilitic medication is often useless and surgical interference becomes necessary.

DR. RICHARDSON, of Columbus, O., thought the treatment advised by Dr. Maconet was the only rational and accepted method, and was fully abreast with the times.

DR. BROWER, of Chicago, thought the operation *per se* was insufficient to cure, but is merely an adjunct to constitutional treatment.

DR. DERCUM, of Philadelphia, said these operations had been done frequently in his city, with much benefit but without absolute cure. In the main he agreed with the previous speaker.

Erotopathia.—Morbid Erotism.—DR. C. H. HUGHES, of St. Louis, read a paper with the above title, and formulated the following conclusions:

1. Morbid erotism presents both normal and abnormal psychological aspects. It, therefore, presents a voluntary deviation from the ordinary and natural indulgence of the genesic instinct—the normal, but immoral, psychology of the eroto-sexual propensity, and instinctive, inherent, organic, dominant, and often resistless, involuntary perversions of this passion; the latter being the true abnormal and organically unnatural sexual perversion, the reverse, or contrary sexual instinct. This is the psychiatrical aspect of the subject, the one that most concerns us as alienists and neurologists.

2. Love and the genesic sense are not one, as is shown in the antedating of love to the appearance of the sexual feeling, in the developmental period up to puberty, and its survival beyond the menstrual climacteric in women. In the organic evolution of the individual, love antedates the birth and survives the decay of the sexual feeling, though it is intensified or diminished, or otherwise modified or influenced by sexual states.

3. The duty of the hour is to search out the complicating neurological and neuropathic factors, and the predetermining neuropathic conditions, the neurology and neuriatry, immediate and ancestral, of these unique morbid and unnatural eroto-genesic perversions; to weigh in conjunction the potentialities of physical or psychical environment, and determine as satisfactorily as we may, in the light of clinical and historic facts, and physiological and pathological states, the true mental status of the eroto-sexual pervert.

4. This inquiry involves a study of hystero-erotic attachments and aversions, erotic trances, ecstasies, beatitudes, divine amours, immaculate conceptions, etc.. as well as the true contrære sexual empfindung or psychopathia sexualis. It involves also certain morbid erotic perversions sometimes observed in epileptically insane females, such as vaginal mutilation with glass, pins, and needles inter vaginam, etc., epileptic and neurasthenic exhibitions, etc., during a psychical equivalent. We include all under erotopathia.

In every study of morbid erotism the distinction between love and lust should be sharply drawn, as between healthy erotism and perverted or debased sexual passion. This is necessary to a proper understanding of those historical and every-day recorded instances of pure but perverted Platonic affection, and those oft-recurring and startling reversions of sexual love into murderous hate and passion, so often chronicled in the public press.

While science should cast the mantle of charity over morbid impulsions yielded to in resistless psychopathic states, it must draw the line between similar impulsions (depraved and but slightly, if at all, morbid) cultivated and gratified in normal psychical conditions. It must separate disease from depravity of mind, and herein lies the difficulty of our subject.

The question of crime and insanity, often difficult to solve, devolves upon us as medico-jurists to determine from known and yet to be acquired psychologic and psychiatric data.

The subject is primarily neither one of sentiment nor morals exclusively, but mainly one of psychiatry, to the study of which the data of alienism and psychology should be rigidly applied in all questions of medical, moral, and forensic inquiry.

DR. T. D. CROTHERS, of Hartford, said that with the array of symptoms as outlined, it is impossible to consider such cases other than insane.

DR. J. K. KING, of Watkins, N. Y., considered the difficulty arose in determining where moral depravity ends and insanity begins. He cited illustrative cases, and concluded that all could not be classified as insane.

DR. MACONZET, of Mexico, expressed the view that erotopathia may be produced by either peripheric or centric causes. He had seen several cases in women. Some were occasioned by disorders of the genital apparatus, but in others no physical deformity was found.

Treatment of Nervous Diseases in Sanitariums.—This was the title of a paper by DR. J. K. KING, of Watkins, N. Y.

He said there was great danger at the present day of specialties being too much divorced from each other. He made a plea for their closer union, and more harmony in treatment. This is best accomplished, especially in chronic nervous diseases, in medical institutions. The various requisites necessary to make a sanitorium more than a sanitary resort, and to make it worthy of the confidence of the medical profession, existed in the varied methods of treatment and the advantage of constant supervision. He also discussed the great advantage of occupation, regularity of life, and healthful surroundings in addition to systematic treatment.

Diseases of the Gangliated Nerves.—This paper was read by DR. CHARLES K. MILLS, of Philadelphia. He first referred to the erroneous views as to the gangliated nerves. Even to the present day fanciful views regarding the so-called sympathetic nervous system are held by the profession at large, which was in part his reason for presenting this paper to the section. The name "sympathetic" has had much to do with perpetuating these errors. He argued that the ganglia of the gangliated nerves constitute lower, local, decentralizing levels of the nervous system. He gave the following as the diseases which may be regarded as genuine affections of the gangliated nerves:

1, Certain vaso-motor neuroses of the extremities, as erythromelalgia, digiti mortui (dead fingers), Raynaud's disease, or symmetrical gangrene, angio-neurotic œdema, and some forms of acro-paræsthesia; 2, certain local vaso-motor and trophic affections, as perforating ulcer of the foot, Morvan's disease in some instances, and various pigmentary and other skin affections; 3, unilateral and localized sweating; 4, some forms of pupillary dilatation; 5, tachycardia and probably other varieties of disorder of heart rhythm; 6, some varieties of changed arterial tension; 7, anasarca, from deficient vaso motor tonus and unassociated with organic disease of heart or kidneys: 8, some varieties of arthropathy: 9, some varieties of lymphopathy; 10, some forms of isolated and diffused neuritis, as of the cervical gangliated cord of the great and lesser splanchnics, or of the pelvic splanchnics, or nervi-errigentes; 11, some painful sensory disorders not neuritic in character, but which give rise to mediastinal, pulmonary, abdominal, and pelvic neuralgias; 12, probably various reflex disorders.

The Modern and Humane Treatment of the Morphine Disease.—DR. J. B. MATTISON, of Brooklyn, read a paper with this title. Attention was called to the lamentable fact that morphinism finds its favorite victims among our own profession.

It was, therefore, quite natural to suppose the subject would be found of interest to a Congress of medical men.

The modern treatment of the morphine disease is compassed, mainly, by three drugs—bromide of sodium, co-

deine, and trional. These form a combination of unrivalled efficacy, if properly used, in proper cases, and, combined with minor aids, make a method far in advance of any yet presented, to secure two leading objects—minimum duration of treatment and maximum freedom from pain.

The humane feature of this modern method is of marked and far reaching importance; for, by it, the common idea that escape from the bondage of opium is possible only through great and prolonged distress, has been proven to be a mistake, being largely robbed of its terrors: and when this humane treatment shall come into general practice we shall note a largely increased number of ex-poppy habitués.

Few advances in modern therapeutics have been more marked than along the line of this disease; and never was its treatment so simple, satisfactory, and successful as now.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE HEAT-WAVE—ITS EFFECTS—TREATMENT OF INEBRIATES—EVIDENCE OF MEDICAL MEN AND MAGISTRATES—IS DRUNKENNESS A CRIME?—THE ANTI-ALCOHOL CONGRESS—SIR D. DUCKWORTH'S DEFENCE OF MODERATE DRINKING—THE SELECT COMMITTEE ON MIDWIVES—SMALL-POX—PROFESSOR CHARCOT—MEDICAL QUESTIONS IN PARLIAMENT—SALE OF POISONOUS PROPRIETARY ARTICLES—QUARANTINE—TUBERCULOSIS COMMISSION—VACCINATION—HEALTH OF THE ARMY—HOMES OR COLONIES FOR EPILEPTICS—INFLUENZA—MEDICAL DEGREES FOR WOMEN—APPROACH OF CHOLERA—SMALL-POX—TYPHOID.

LONDON, August 19, 1893.

THE sarcastic Frenchman who defined an English summer as "three hot days and a thunderstorm," ought to have been made to pass a month out of the last three in our "tight little island." From every direction the stories of the results of the great "heat-wave" through which we are passing are oppressive, and here in London we are suffering as no one can remember from excess of sunshine and sun heat. Meteorologists tell us that we are in the midst of an enormous area free from cyclonic disturbances. As the accumulation of heat depends on the distribution of atmospheric pressure, this accounts for the condition from which we are suffering, but as we cannot alter the conditions we can only resolve to endure.

I have spent some time in warmer and sunnier climes, but scarcely remember to have felt the languor and oppression experienced during the past week. The thermometer was only 82° F. in the shade this morning, though it has been 90° in some places. I am writing in a north room with open windows well shaded with heavy blinds and curtains, and the thermometer is just under 80° F., but in other parts of the house it is higher. Many cases of heat-stroke have occurred, and other effects, as diarrhœa, exhaustion, heart-failure, etc., make a considerable part of practice. Horses too are suffering, and the omnibus companies are changing the usual order of their work.

The treatment of inebriates continues to occupy attention. Not long since it was the report of the Departmental Committee, and now it is the issue of the evidence taken. The first witness was Dr. Hoffman, who is Inspector of Retreats under the Inebriates Act. He considered that an extension of the system of retreats, especially for the poorer classes, is very desirable. He found the poor had not much chance of a share in the benefits of retreats. He advised separate small retreats in preference to large institutions, and thought that on the expiring of the term patients should be allowed to re-enter by their own voluntary act, and so prolong the period of treatment.

Dr. Norman Kerr opposed the notion that the loss of self-control was greater on the part of a woman who took to drink than on the part of a man. He said he could name ladies in society who had been in "Homes," and who under his sanction had returned to their own families, and were now discharging all their duties in society simply by the reassertion of their wills, which had been paralyzed by drink—some for as long a period as ten years.

Sir Richard Quain thought that drunkenness accompanied by injury to a man's self or his family ought to be an offence punishable by imprisonment or otherwise. He had seen drunkards managed by their own families recover, but they would be much more likely to do so under the control of a retreat. He remembered two distinct cases—one, the son of a distinguished member of Parliament, who quite recovered by voluntary total abstinence.

Sir John Bridge, whose experience as a magistrate is very large, pointed out that there is power to compel an habitual drunkard to find sureties for six months, and he thought this provision of the law should be acted on. He thought it important that the public should come to see that repeated drunkenness is a crime, and a prison is the place for criminals. It would be mischievous for people to say "Oh! they make these drunkards very comfortable." It is an offence which is injurious to society, to a man's friends, to himself, and however looked at, this is crime, and should be treated as crime. Again, he held that all crime is apt to become habitual: a burglar becomes a habitual burglar; a pickpocket is always a pickpocket; all crimes become habitual. To prevent drunkards habitually offending, Sir John would treat them as other criminals. In a bad case, when a man's physique is gone, he compelled them to find sureties for six months or go to prison. Then when they came out he heard no more of them.

Colonel McHardy, prison commissioner for Scotland, advocated normal treatment as far as possible. If a man's friends could not look after him, nor any association for aiding discharged prisoners, he would have him detained in some establishment, and suggested that spare space in workhouses might be utilized.

It is obvious that the views of these witnesses represent opposite methods of dealing with an acknowledged evil. The medical men look upon alcoholism for the most part as a disease, the magistracy regard it rather as a crime. If drunkenness be made punishable before it becomes habitual, there will be less excuse for separating it from other offences against society, and treating it as insanity or providing comfortable retreats. If, on the other hand, drunkards are to be free to indulge their appetites until they cannot control them, there will be greater need of imposing restraints on them at that stage. The recommendations of the committee will doubtless receive every attention, and one of them is the provision of reformatory institutions aided by contributions from imperial or local funds. This, I may remark, seems much like a proposal to saddle the overburdened rate-payer with the cost of maintaining drunkards in comfortable homes or retreats, while their families are already too often "on the rates." The government is deeply pledged to early legislation on the temperance question, but whether it will have an opportunity of redeeming the pledge is very doubtful. Even if it should, the task of carrying a measure which will excite so much controversy will be no easy one. Everyone admits that drunkenness is an offence against society, but many hesitate to translate that phrase into the word crime, and those who admit the word seem to think it is of a nature that calls for different treatment from that awarded to other offences.

In connection with the subject, I may mention that a London physician has gone over to The Hague to defend moderate drinking before the International Congress against the abuse of alcohol. From a telegraphic summary now before me, Sir D. Duckworth seems to have taken up the same position which he tried to maintain on a former occasion in this country. He found very few

supporters, and at the conclusion of his paper hisses freely mingled with the usual applause. One member, in support of moderate drinking, said "men could not do without a stimulant"—so my telegram says—but surely the teetotallers, as well as the Mohammedans and other races who refuse to drink, are a standing proof of the fallacy of this assertion. Sir D. Duckworth has been treated to such caustic logic at home that I hardly expected him to go abroad for the sake of repeating his views; and I cannot help thinking that, when opposing total abstinence, he would have shown better taste by declining the office of vice-president for England of an anti-alcohol congress.

The report of the select committee of the House of Commons on midwives has been issued. From the evidence taken at the four sittings held, the committee conclude that midwives are a necessity, that their work heretofore has been, on the whole, successful; but that many deaths, maternal and infantile, have been caused by the want of training of midwives. They advise that a register should be instituted and the term "Registered Midwife" should be protected, and restricted to those who have been properly trained—the vested rights of those now in practice being preserved by permitting the use of the term midwife without the magic prefix "registered." A system of training, examination, and registration is recommended to be regulated by the General Medical Council, or if that body declines the honor, the Privy Council to make arrangements. Any local provisions to be carried out by the county councils. The committee do not believe that the creation of a class of trained midwives will be injurious to the medical profession, but already there is evidence that they may be mistaken in this. The statements made by witnesses on this point may be correct from the point of well-to-do practitioners, but those who now supply the poorer districts declare that the sacrifice of the midwifery branch, and all that will be sure to go with it, will so restrict their earnings as to make living impossible.

Small pox is still on the decline. The death of Professor Charcot is announced. He took refuge in London with his family during the siege of Paris and resided with friends of mine, so that I had full opportunities of knowing him. Since then what an amount of good work he has accomplished! His methods did not always commend themselves to English judgment, and I have in a previous letter expressed some disapproval of them, but everyone recognized in him the scientific spirit and the devotion to work which has carried his fame throughout the civilized world.

London, August 26, 1893.

Some medical matters have managed to obtain a moment's hearing in Parliament amid the political conflicts, but only in the form of questions. Thus ministers have replied that sanitary control of the great fairs in India has been beneficial, and this year the great fair at Hurdwar had passed off without spreading cholera. As to the gatherings at Moslem holy places, as far as acceptable to the Porte, assistance would readily be given to prevent outbreaks of cholera at Mecca, Medina, and the Red Sea ports.

Ministers were obliged to admit on Monday that the Attorney-General had given directions to the Public Prosecutor, limiting actions against patent-medicine venders to cases in which the articles contained sufficient poison to make them distinctly poisonous. The question seems to have been provoked by a case lately before the courts. It is a dangerous thing to permit the sale of articles containing minute quantities of poison, as the continual holocausts of babies to soothing syrups fully proves. There was recently a prosecution for selling a "skin lotion" which was laden with corrosive sublimate, and yet warranted to contain nothing injurious, and to be a certain beautifier of ladies' faces.

Another question in the House elicited the fact that the Quarantine Acts are now under the control of the Privy Council, and that England will not resort to quarantine except for yellow fever and plague, and then only in cases when otherwise ships from England would be treated by other countries as liable to quarantine in consequence of the omission.

It was stated on Tuesday that two of the inquiries undertaken by the Bovine Tuberculosis Commission were completed, and that the third would probably be finished by the end of next month; after which, I presume, we may look for the report.

The Home Secretary, in reply to another question, said he strongly deprecated second prosecutions for non-vaccination. He has brought in a bill to prevent this. It looks like giving the anti-vaccinationists the option of a fine or vaccinating their children. Is it not a license to them to propagate small-pox among their neighbors in consideration of a trifling payment? And this in spite of the recent diffusion of small-pox through the country.

The report of the Army Medical Department for 1891 has appeared, and gives an account of the health of our army during that year. I think these blue books are less interesting than formerly. They used to contain some interesting contributions from army surgeons on subjects on which these officers had opportunities of work which their civilian brethren to a considerable extent lacked. These valuable essays are now omitted, and it requires a rare appetite for statistics to enable a civilian to digest the mass contained in any year's report. In our home army it is satisfactory to notice a decrease in the death-rate as well as in the average time of inefficiency from sickness. Scarlet fever prevailed at Aldershot, and in a less degree at other stations. There were altogether 215 cases, but only 3 deaths. Measles also prevailed, but no death is reported. There was one case of small-pox. There were 17 deaths from typhoid fever; in the previous year there were 30. The attacks were 109 and 136, respectively. Dublin had 30 cases, 2 fatal, and the disease appeared in all districts, though in some there were only one or two cases. Influenza, which was epidemic throughout the kingdom, also affected the troops. The venereal diseases show a decline of 35.9 per 1,000, on the average, for the last five years. There were more suicides than the average for ten years—25 as against 20. The average age of these was twenty-nine, and their service ten years.

What should be done with epileptics? The question grows in urgency. The poor when afflicted have their lot made very hard. Employment is frequently refused to those only slightly afflicted, on account of the uncertainty, and often danger, that would be introduced. To consign them to pauperism or shut them up in asylums is alike costly and useless. Homes have been proposed, and in some cases would be useful, but those who have seen the "Colony of Bethel," in Germany, report most favorably of the plan. Work adapted to each patient is the leading idea. Regular occupation is provided, and this seems to add to the pleasure of life of the patients, who are certainly happier than under no system at all. As an indication of the variety of employment which epileptics can engage in, I may mention that the German colony manufactures chemical products—makes its own bromide and exports it. There are about fourteen hundred patients in the colony. The foundation-stone of the church was laid by the Emperor Frederic. I am not able to give figures as to the financial state of the colony, but those who have advocated homes in various towns might well consider whether something of this kind, "far from the madding crowd," would not be a better solution of a difficult problem.

A further report on epidemic influenza has been published by the Local Government Board. It contains another paper by Dr. Parsons, who prepared the volume issued in 1891, as well as a report on the pathological aspects of the disease by Dr. Klein. There is also a prefatory summary from the pen of the chief medical officer, Dr. Thorne Thorne. I must recur to this interesting report another week.

The ladies have scored again. The ancient University of St. Andrew's has resolved to recognize the London

School of Medicine for Women. This will enable the students of that school to graduate at the University of St. Andrew's, and from the manner in which women students have seized every opportunity of obtaining academical distinctions, we may expect soon to find a number taking medical degrees at St. Andrew's, and carrying off their full share of honors and prizes.

Cholera steadily approaches. There have been some cases of acute gastro-enteritis in London, and one or two deaths of so suspicious a character as to be treated by disinfection and all precautions. A bacteriological investigation of the cases is to be carried out by Dr. Klein. Medical men do not attach great importance to these cases, but the public is naturally alarmed. At our ports there have been cases brough to us, but isolation and disinfection under the medical officers have prevented the disease from spreading.

Small-pox continues to abate. There is a diminution of enteric fever, and the general state of the public health is satisfactory.

WHAT A NATIONAL BOARD OF HEALTH MIGHT DO.

To the Editor of the Medical Record.

Sir: The bill to be introduced in the U. S. Senate for a provision of a National Board of Health is an excellent measure, but it overlooks an abuse which might, or should, come within the scope of such national legislation, viz., the anomalous condition of the laws of the different States governing medical practice. This question has heretofore been left to the State legislatures, and the result is a great diversity of laws, or no law. Ignorant charlatans can buy a parchment from one of the bogus diploma factories, and go to certain States and practise medicine without molestation. The penalty for issuing such bogus diplomas—six months' imprisonment and a small fine—is wholly inadequate to prevent their sale and use, to the hazard of the health and the lives of the people.

Another abuse which should come under the supervision of a National Board of Health is the manufacture and indiscrimiate sale of patent medicines. The people who are induced by the seductive advertisements of these nostrums to buy and use them, know nothing of their contents, nor whether the medicines are suited to their ailments. It would be better to wholly prohibit the sale of medicines in that way, but failing in that, the proposed National Board of Health should have power to supervise the business of preparing, should analyze and ascertain their constituents, and determine whether they are harmful, or beneficial, or useless.

Leonard Landes.

58 Rivington Street.

A Female Sanitary Inspector.—The Brighton (England) town council have taken a new departure in their sanitary work by appointing a woman as an inspector of nuisances for the borough. For the present the appointment is for three months, at one pound per week. Her duties will be to visit the houses of the poor in which cases of children's ailments occur. The candidate appointed has been a district nurse in Brighton, and has also been at St. Bartholomew's Hospital as a nurse for two years, in addition to having been a nurse at the County Hospital and the Brighton Workhouse.

Preconceived Ideas.—One can do nothing without preconceived ideas; but we must have the wisdom to believe in their deductions only so far as experience confirms them. Preconceived ideas, under the rigid control of experimentation, are the vivifying flame of the science of observation; there are no fixed ideas. The greatest disordering of the mind is to believe things are because one wishes them to be. To enter upon a path and to stop every moment and make sure you are not going astray—that is the true method.—*Pasteur.*

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending September 9, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	26	7
Scarlet fever	22	1
Cerebro-spinal meningitis	4	10
Measles	57	2
Diphtheria	75	24
Small-pox	12	2
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

The Relationship of the Nose and Rectum —We have been gradually initiated into the belief that certain forms of intra-nasal disease may be associated with more or less distressing disturbances of the respiratory function; but now we are invited to extend the sphere of the rhinologist to the genito-urinary and rectal organs. This, at least, is the tenor of an article by Dr. J. G. Carpenter, in the *Medical Mirror*. Lest his readers should underrate the pathological importance of naso-pharyngeal catarrh, he points out that "the sequels of naso-pharyngeal catarrh are: Reflex cough, sneezing, stenosis of nasal cavities, ocular catarrh, asthenopia, aural catarrh, headache—frontal, vertical, or occipital—nasal polypi, tonsillitis, enlarged tonsils, hypertrophy of the submaxillary, anterior and posterior cervical glands, patulency of the Eustachian tubes, hemorrhage of the throat—either the naso-pharynx, larynx, or trachea—epistaxis, laryngitis, tracheitis, bronchitis, and catarrhal phthisis, neuralgia, or numbness of the limbs or trunk, anæsthesia, hyperæsthesia of the skin, paresis of the arm and forearm, dyspepsia, hay fever, irritability, melancholia, frightful dreams, agoraphobia, partial loss of memory, or intellectual faculty, insanity, insomnia, vertigo, palpitation of the heart, neurasthenia, stammering, suicidal tendency, asthma, chorea, epilepsy, loss of taste, anæmia, anorexia, deafness, reflex irritation of the genito-urinary organs, an abundant discharge of nasal mucus or sneezing during coitus, aphonia, erythema and herpes of the integument and lining of nose, tinnitus aurium, otalgia, dysphagia, and constipation. In cases of naso-pharyngeal catarrh of long standing there is a tendency to catarrhal inflammation or debility of all the mucous membranes of the body." This is a good large order, but by no means limits the author's draft on our credulity. He instances cases in which vocal defects yielded only to treatment directed to the endometrium, and others in which spasm of the glottis followed intra-uterine applications. In quite a large number of instances laryngeal was found to coincide with rectal disease; but it seems to us that the author insists too much on mere coincidences. It is only necessary to carry this line of argument a step further to prove its inconclusiveness, as, for example, when one calculates the proportion of widows among the patients. Yet it does not occur to the author to suggest that naso-pharyngeal catarrh has any etiological bearing in respect of widowhood. Why not? Decidedly rhinological ambition soars too high, for its adepts would fain monopolize the whole field of medical practice. It is time that Mrs. Partington was put forward with her broom to stem the tide of "generalization by specialists."—*Hospital Gazette.*

The Causation of Anæmia and the Blood-changes Produced by Uric Acid.—Dr. Alexander Haig read a paper on this subject at the recent meeting of the British Medical Association. He pointed out that his previous

researches on "anæmic attacks," paroxysmal hæmoglobinuria, splenic leucocythæmia, chlorosis, and anæmia showed that these troubles are very commonly associated with excess of uric acid in the blood and urine. The excess of uric acid is not the result of the blood-changes, but their cause; for the uric-acid fluctuation begins before there are any blood-changes. The speaker said that he had the power by influencing the solubility of uric acid to bring it in excess through the blood into the urine at pleasure, and it is also possible to increase the uric acid in the blood and urine by taking a known quantity by the mouth. Applying this knowledge to the experimental production of blood changes, he said the value of the blood fraction $\frac{\text{Hæmoglobin}}{\text{Red cells}}$ varies with the amount of uric acid passing through the blood from day to day; and by intentionally increasing the amount of uric acid, definite and distinct falls in the value of the blood fraction can be produced. Uric acid is more powerful than iron, and when in excess in the blood will prevent iron from raising the value of the blood fraction; hence the observation of Murchison, that iron will not act when the liver is out of order, for dyspepsia entails an excess of uric acid in the blood. Others have produced similar blood-changes by the administration of thyroid extracts, which are rich in extractives closely related to uric acid; and a patient under this treatment gave undoubted clinical signs of uric acidæmia. The author explained by means of this uric-acid causation the anæmia and chlorosis in girls, and the relation of these troubles to the function of menstruation; also the similar effect of fevers, tropical climates, and diet. As a result of these observations he drew the conclusion that anæmia can be prevented by taking care not to introduce an excess of uric acid into the body, and can be cured by clearing it out of the blood.

The G.-T.-R. Doctor.—The frantic scramble for money in the commercial world is often regardless alike of the method of attainment, the use to be made of it, and the quality of personality of the man that secures it. Up to the present time the medical profession has set its face sternly against the plan of acquiring medical success by the means plainly dominant in politics and finance. But it cannot be denied that the Get-There-Regardless Doctor has arrived. The patient, thorough-going young physician, content to advance slowly and by gentlemanly methods along the road of experience and spontaneously given confidence, is having more and more difficulty to keep head against the splurgy, dashy fellows who use all the arts of politics to win what is called success. For these pseudo-physicians, their profession, instead of being a means of furthering human progress, is a mere tool for furthering their own progress; instead of desiring to cure disease and give their patients health for the sake of their patients, they desire to do these things for the sake of fame and self. Now, every honest man knows the two things are wholly unlike, and it is only the "business doctor" that says the science and art of medicine is the science and art of egotism. To administer a hospital or dispensary, for example, for the benefit of medicine and of the patients, is a very different affair from that of its management for the success of the physician in charge. One of these very successful practitioners once advised the writer to have big reception-rooms at the private office and to keep them running over with hospital dummies. To have well-digested knowledge to teach, and to desire to train young minds for their life-work, are very different things again from a desire to pose as professor and gain consultation-practice and money thereby. Hence the G.-T.-R. Doctor compiles big books with material borrowed from the works of other men, and storms the doors of fame with the eloquence of inexperience and the assurance gained from knowledge memorized last evening. Reports of his brilliant and superhumanly skilful operations somehow creep into the newspapers, together with his testimonials to elegant pharmaceutical preparations, the records of his goings and comings, of his opinions as to the cholera and as to the day's medical fad or scandal. All this and more, such is "enterprise," and the "hustler" finally comes to have something like a serious belief in himself and even in his own seriousness. One fine day, however, he runs afoul of some man who cannot be bribed, bullied, or deceived, some fact that does not get out of the way, that cannot be avoided, climbed over, or crushed down. Other facts of the kind do multiply, and, instead of a Napoleonic dash before an admiring world, it slowly comes about that even the poor sort of success desired is somehow missed; and by-and-by, in a few years, a few—or more—it is found that it would have been a far better policy to have desired an honorable success and by gentlemanly methods. It needs only a short residence in any large city to watch the dazzling professional wonder of a day or of a year quietly fade into the most humdrum obscurity and dishonor. And even if there be an occasional example of such a character more or less permanently holding the clutched prize thus gained, it would still be true that the reckless self-assertion, the vanity, the disregard of others' rights, and the scorn of courtesy were really expenses and not helps, that a better success could have been achieved without their aid, and that success won by them finally poisons and palsies the heart of the winner with a secret shame and self-contempt that no laugh can conceal and that no office can make enviable. And these "successes" have to live in an atmosphere of suspicion and concealed dislike. They know that their assistants and subordinates secretly dissent from their methods, and have only disrespect for the motives of these their temporary masters. The masters have the service only so long as the self-interest of the servant is clearly assured. Their very friends and co-workers must be watched. Their patients are always "finding them out," and quietly slipping away. Nowhere is there love and loyalty and frank kindness. Nowhere is there enthusiasm for a great calling and the work of humanity's social progress; but instead there is a constant Machiavellian cunning to catch dupes, to avoid enemies, to guard against plots, and to push self to the front by politics and unscrupulous sharpness. Even the general public comes more and more to understand such men, although these make the great mistake of supposing that the public is deceived. There is a remorseless irony in the necessity that compels such to keep up the farce of pretended virtue, when everybody is pitying and smiling at the sorriness of the deception and the poverty of the disguise.

The lesson to be drawn from the life of the G.-T.-R. Doctor should be laid to heart, chiefly by the student and young physician with unformed character and unfixed life-motives. He is debating with himself as to whether he will imitate the "Success," or whether he will patiently and modestly and slowly win his way by means that will finally secure the respect of his own conscience and the honor and affection of his fellows. To such it should be urged that the method is of more importance than the attainment; that courtesy is more valuable than fame; and that power, money, and success may be bought at prices enormously above their true worth. In his heart the "Success" despises his imitators, and while seeking to injure, he still honors, those that will not assent to his methods. *Don't do it, young man; it doesn't pay.'—The American Lancet.*

Sulphate of Cinchonamine is a new antipyretic which is said to have some valuable properties. Le Gendre and Beaussenat have employed it in a number of cases of erysipelas, giving it by hypodermic injection in doses of four and one-half to nine grains. In some instances the effect upon the fever was superior to that obtained by any other antipyretic drug; but in others it was nil, and it was found necessary to resort to cold baths. In two cases the drug caused epileptiform convulsions, an effect which has also been observed in experiments with it upon animals.

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Original Articles.

ON LIPOMA OF THE TONGUE, MULTIPLE SYMMETRICAL LIPOMATA, AND THEIR ETIOLOGY.

BY JULIUS ROSENSTIRN, M.D.,

SAN FRANCISCO, CAL.

IN 1877, when Cohnheim's lectures on general pathology developed his new theory of the etiology of tumors, it seemed as if a sudden flash had lightened the darkness that had hitherto surrounded the origin of these growths. The opinion of this great scientist, that a defective embryonic structure was the cause of the appearance of tumors later in life, seemed to gain then the nearly undisputed recognizance of the pathological anatomists, until in this instance, also, a sifting criticism drew narrowing limits to its general adoption. Soon after the appearance of Cohnheim's book, observations, at first of malignant tumors only, were published which forcibly demonstrated the existence of other modes of origin than the one from stray embryonic germs. Later facts, gathered on an experimental basis, were added, which claimed a large share for an hereditary and acquired disposition in connection with accidental causes springing from the various pursuits in and modes of life. For the lipomatous tumors such predisposing influences are, in addition to traumatic causes, age. sex, and an inclination to excessive general fat formation, whether due to a certain manner of nutrition or to an individual predisposition.

Of the relation between nutrition and age to the growth of fat tissue, Virchow[1] says: "The influence of nutrition on the condition of the fat-tissue certainly deserves to be noted, and not only the influence of very fatty nutriments, but also of beer and strong alcoholic beverages." And further on: "A point in which lipoma greatly differs from other tumors, for instance enchondromata, is its comparatively rare appearance in early life and its distinctive feature of belonging to the middle and advanced age. This fact alone should suffice to prove the probability that the disposition is oftener acquired than congenital."

For the preponderance of lipomata in females I can quote, in addition to the general experience of most authors on this subject, a compilation of cases from an essay of Grosch, to whom I have yet to refer very extensively. His records, collected from various large hospitals and comprising six hundred and sixty-five cases of lipomata, while considering the rarer entrance of women into hospitals, show the relation of males to females in these instances to be like 1 to 2.

The traumatic causes may be divided into two groups: those having a slow or chronic effect appear in certain professionals, as millers, carriers, shoemakers, butchers, or others who are forced to expose some parts of their body to a continuous pressure. Cases of lipomata caused by acute trauma, as blows, knocks, etc., have been described by different observers, as Lücke, Volkmann, Koelliker, Zesas, and Grosch. Notwithstanding these indubitable facts, it would be wrong to deny to Cohnheim's views any part in the explanation of the origin of lipomata. In a recent essay of Jacobi[2] on congenital lipomata, this subject has been exhaustively dealt with. According to this excellent investigator, they appear in various parts of the body; but up to the date of his essay, only one case had been observed on the head, while the loins and gluteal regions are decidedly favored spots. He embodied in this essay the remarkable facts in favor of Cohnheim's theory, that the congenital lipoma is sometimes associated with other congenital anomalies, as nævi, cavernous angiomata, dermoidal cysts, fibromata, and congenital akromegalia.

In a most original treatise (published after the author's death, F. Grosch, by his teacher, Edward v. Wahl), F. Grosch[1] subjected the etiology of the lipomata to a very searching examination. From the books of the Dorpat clinic, and from hospital reports in different European countries, he collected seven hundred and sixteen cases of solitary lipomata, and examined their distribution over the different regions of the body. This investigation showed the surprising result that a decided preference existed for some parts of the body over others. While the entire scalp was only represented with 0.25 per cent., the forehead showed 1.50 per cent. The arms have 13.57 per cent., against only 6.86 per cent. of the thighs and 4.19 per cent. of the fatty gluteal region. Ahead of all ranges the back, with 21.54 per cent. without the shoulders, which claim 7.92 per cent., while the anterior surface of the trunk, the chest, only shows 6.18 per cent., and the abdomen only 2.37 per cent. In the numerical scale, according to extent of space, neck and shoulders show the greatest attraction for the growth of lipomata, then follows the posterior surface of the trunk until down to the nates, while the anterior half of the trunk shows a much smaller participation. The lower extremities are less favored than the upper ones; with both the density scale gradually decreases from above downward, to reach the lowest degree in the palms of the hands, and more so even on the soles of the feet. Not only the solitary lipomata, the multiple ones also, symmetrical or diffuse, show quite a similar order in their distribution over the body. Grosch relies chiefly on this fact in his opposition against Cohnheim's theory as the exclusive or principal explanation of the origin of lipomata. He asks the logical question, if fatty tumors really grow only from stray germs, why are they not distributed, at least approximatively, equally over the whole surface of the body? He then develops his views, based on the experience of a great many prominent authors, that the cause of many lipomata must be looked for in a disposition to general adiposis, either congenital or acquired; their localization, however, remains dependent upon the distribution of the glandular organs of the skin, the sebaceous glands.

In the absence of exact information as to the distribution of these glands, he estimates their density by that of the hairs, these two being nearly constant companions of each other.

According to Krause's and Unna's countings of the sweat-glands, they are distributed as follows: The skin of the back and of the extensor sides of all extremities shows a smaller number of sweat-glands than the skin of the breast, the abdomen, and the flexor sides of the extremities.

The parts mostly provided with glands are the soles of the feet, palms of the hands, flexor sides of the joints, axilla, the rima ani, the surroundings of the genitary organs, and the forehead. With the exception of the forehead, palms of the hands, soles of the feet, the distribution of the sebaceous glands is very much alike to the sweat-glands. The districts with plenty of glands, like

[1] Krankhafte Geschwulste, vol. i., page 392.
[2] Archives of Pediatrics, 1884, vol. i., No. 2.

[1] Studien über das Lipom. Deutsche Zeitschrift f. Chir., Bd. 26, p. 307.

the head, lower parts of the extremities, the flexor side of the joints, the inner surface of the extremities, mons veneris, perineum, and rima ani, rarely show lipomata; while those less favored with glands, as the back, shoulders, upper parts of the extremities, and of the extremities again, the lateral parts, are far more frequently affected. Grosch thinks that this arrangement of the glands shows a certain relation to the deposition of fat in the subcutaneous tissues. Where, through ample provision with sebaceous glands, a great deal of fat is secreted through the skin, there is not much panniculus adiposus; where, on the other hand, the glands are only sparingly scattered, the fat grows considerably. These physiological presumptions correspond with the distribution of the panniculus in lipomatous patients. On the back, neck, shoulders, arms, gluteal regions, and thighs, an enormous accumulation of fat takes place, while the scalp and the lower inner parts of the extremities change their forms but very little. Accordingly, the localization of lipomata agrees with that of the adipose tissue in obesity. The abdominal region occupies an exceptional position, it is very strongly developed in obese people, while lipomata occupy it very rarely.

Grosch tries to attribute this to the neighborhood of the digestive tract, which under ample nutrition, fairly inundates with fat the mesentery, the omentum, the subserous, and adjoining tissues, embracing finally the abdominal wall to such a degree that the glandular apparatus does not suffice to eliminate the superfluous fat.

He believes accordingly, that the obesity and lipomatosis represent pathological phenomena which are decidedly different from each other in their former expression, but perfectly identical in their character. He draws attention to the fact and illustrates it by a case of his records, that in persons with an abundant layer of subcutaneous fat the adipose tissue shows strongly developed lobuli, which are distinctly limited and freely movable. They are true lipomata, the same as those floating lipomata of the abdominal cavity.[1] A number of lipomata can therefore be considered simply as a part-symptom of general polysarcia. To understand the etiology of those lipomata that appear in slender individuals, he lays special stress on the frequent appearance of tumors symmetrically located, often evident in cases with multiple growths. The symmetrical distribution of skin-glands over both halves of the body, the secretion of which is regulated from common centres of glandular secretion (medulla oblongata and dorsal part of medulla spinalis), possibly indicates partial disturbances in these centres which find their expression in locally lessened secretion and consequent growth of lipomata. The growth of solitary lipomata could be explained by peripheral lesions that have caused trophoneurosis of the skin, or have directly injured the conductive tracts for secretion, and thus a number of lipomata would have to be considered as a product of a tropho-neuropathic lesion of the skin. Many points of these brilliant deductions are perhaps not sufficiently supported by facts. In the chapter on analogy of the distribution of lipomata and the increase of fat in obesitas universalis, a special stress is laid on the assurance that hands and feet, with their fingers and toes, are not changed by obesity.

I have made some measurements of the circumference of the hands and feet, as well as fingers and toes, of people suffering from obesitas universalis, and found considerable difference (twenty to forty per cent.) between these and well-nourished individuals of the same sex and height. It should not be forgotten that an increase of circumference of the body of ten to twenty per cent. makes a far greater impression than the same increase in the circumference of a finger. If one considers the large share of the osseous part in the volume of hands and feet, a part that remains the same in adiposity, I think a perfectly proportioned increase of these members can be demonstrated when compared with the others. These objections, however, are only of a less important character, and there remains enough of his thoughtful deductions to serve as a basis for his theory.

[1] Virchow: Krankhafte Geschwulste, p. 384.

The final result of these deductions would be: The localization of all lipomata is depending upon the relative quantity of glandular tissue and their function in various skin areas; the disposition for their growth being in inverse ratio to the supply of glands and their functional energy.

In the light of these views, I will report two cases that belong to the rarities of clinical surgery, and in their joint analysis may add a valuable contribution for the support of Grosch's theory.

My first case is a lipoma of the tongue, together with one of the left arm, which was followed later on by a third lipoma on an exactly symmetrical spot on the right arm. Lipomata of the tongue are very rare, and only a few cases are to be found in medical literature.

Paget [1] and Bastien [2] are, as far as I could ascertain, the first who called attention to them; a congenital lipoma of the tongue has been described in vol. I. of Virchow's Archiv.[3] In the year 1881, E. Mallon [4] treated the subject in his "Thèse des Lipomes de la Langue." He found in the literature eight cases, to which he adds one of his own observation. The lipoma was situated most frequently on the tip of the tongue, more rarely on the dorsum near the median line, and was only found at the base in cases of multiple development in the tongue. Characteristic symptoms are the slow growth, yellowish transparence through the much thinned expapillated mucous membrane, and pseudo-fluctuation. The tumor develops first in the substance of the tongue itself, and only later it becomes submucous and afterward pedunculated.

Apart from pure lipomata, fibro-myxo-osteo and congenital lipomata of a very complex nature have also been observed. Gosselin [5] described lipomata of the tongue in a man forty-eight years of age. The growth was very slow, the patient could ascertain the first traces twenty-five years ago. At the operation the tumor was as large as a walnut, pedunculated, and so completely isolated, that an origin from the muscles of the tongue was entirely out of question. The pedicle was tied with elastic ligature.

Cauchois [6] observed a case in a man fifty years of age. On each side of the margin of the tongue, but not reaching the apex, were a number of irregular protuberances of elastic consistency and covered with healthy mucous membrane with a yellowish tinge. He undertook the extirpation on one side, but did not entirely complete it. The patient soon died of phthisis that existed already at the time of the operation. Autopsy showed isolated lipomata at both margins of the tongue. He divides the lipomata of the tongue into three groups:

1st. Submucous, which are easily removed.

2d. Intermuscular, which follow the tracts of the connective tissue between the muscles. Extirpation difficult.

3d. Intra-muscular, mostly combined with those of the second group.

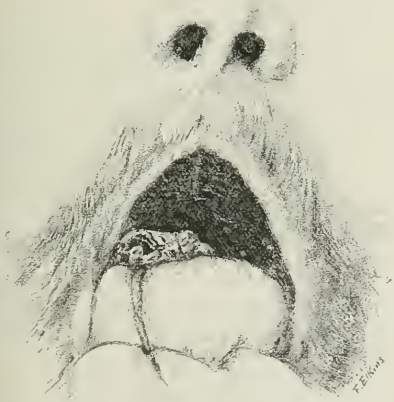
A successful separation of the tumors of the second and third groups seems very unlikely. E. Albert,[7] in Vienna, described a pedunculated fibro-lipoma. It was a little larger than a good-sized plum and was attached with a short pedicle, about as thick as a slate pencil, to the posterior part of the right margin of the tongue. These are all the cases I could find in the medical publications to which I have access. The case of Cauchois shows multiple lipomata in the tongue; no lipoma of tongue was associated with similar tumors on the body.

The first of my cases is the following:

[1] Lectures on Surgical Pathology, ii., p. 89.
[2] Bulletin de la Soc. anat de Paris, November, 1854.
[3] Not seen in the original, nor good reference.
[4] Virchow: Hirsch Jahresbericht, 1881, p. 387, vol. ii.
[5] Lipome de la Langue., Paris Médical, 1881, No. 20.
[6] Lipome de la Langue, Bull. de la Soc. de Chir., 1884-4me, Juillet, p. 573.
[7] Wien. med. Presse, 5, 1885. Ueber einige seltene Erkrkgn. der Zunge.

Case I.—A. S——, a young man, aged thirty-one, has, with the exception of scarlatina in childhood, always enjoyed excellent health. He observed in January, 1888, a swelling of the left submaxillary gland which disappeared after simple application of tincture of iodine. In August, 1888, he noticed a tickling sensation on the right side of his throat, to which he did not pay any particular attention at first. When the sensation gradually grew worse, he complained to several members of his family about the difficulty he had in swallowing solid substances. His sister looked into his mouth and discovered a growth upon his tongue. A physician who was consulted immediately diagnosed very probably a sarcoma (without microscopical examination), for his prognosis was a very bad one. The frightened patient came to me in December, 1888. He is rather slim but healthy looking, measures five feet ten inches in height, and weighs one hundred and forty pounds. In his family no case of tumors has been known to occur. Skin, rather dry. Perspiration has always been exceedingly profuse in both axillæ, so that even ordinary bodily exercise saturated his clothes with perspiration in the axillæ.

Examination of chest and abdomen shows normal conditions. On the right side of the base of the tongue, behind the papillæ circumvelatæ, close to the tonsilla linguæ, is a red, yellowish-tinged tumor, the size of a large English walnut. It is of soft consistency, pseudo-fluctuating, and reaches under the mucous membrane from



the anterior surface of the posterior plica glosso platima to the somewhat enlarged tonsil, forming with this an apparently continuous tumor. (See illustration above.) More careful investigation, however, allows the probe to enter from above, between the lateral part of the tumor and the tonsil, until it meets at the base of the tonsil the dislodged mucous membrane. Only when the tongue is pressed down forcibly and the patient gags, can the entire tumor be plainly seen. Ordinarily, the posterior part lodges in the lower part of the right half of the pharynx. The tumor is freely movable and nowhere adherent to the surrounding tissues. On the left arm, just below the shoulder, with the upper part joining the lower margin of the pectoralis major, lies a soft tumor the size of a walnut, freely movable under the skin. Patient observed it since about three months only. It grew quickly at first, and remained stationary for some weeks. The tumor of the tongue, as well as of the arm, never caused any pain, nor are they painful to the touch. A microscopical examination of a small piece of the tumor of the tongue shows it to be fatty tissue with the usual amount of connective partition-tissue.

With the assistance of Drs. Sherman and Kahn, on December 18, 1888, the tumor of the tongue was extirpated directly at its base with a galvano-caustic snare. Only cocaine anæsthesia was used during the operation. The closing of the snare was done very slowly, and there was actually no hemorrhage. There was no reaction and hardly any pain during the healing of the wound. The very evening of the operation he drank milk and ate oatmeal gruel, and the next day mush and soft-boiled eggs. After the sloughing off of the eschar, which was somewhat hastened by frequent gargling with solution of kali chlorici, I cauterized the remnants of the tumor around its base and also the bottom with crystals of chromic acid fused to the probe, boring into the different parts until I felt resistance. The growth seemed to me to be interstitial, as Cauchois says: a mixture of the inter- and intra-muscular form. A few weeks later the patient came to me and showed me a tumor that had formed on his arm until it had assumed the size of a small hen's egg. On January 13th it was extirpated, with the assistance of Dr. Kahn. It healed per primam, with the exception of a small space left by a catgut drainage in the lower angle.

At the end of March the patient showed me, on an exactly corresponding spot on the right arm, a soft tumor freely movable under the skin, about the size of a walnut. On the 26th of April, after having grown somewhat in the meantime, it was extirpated in the presence of Drs. Marshall and Kahn. The healing was perfect. After the skin had been severed both tumors could easily be taken out with blunt instruments. They were subjected to microscopical examination and showed the same structure as the lingual tumor, that of a lipoma transversed with a dense mass of connective-tissue fascicles. The patient came back again August, 1892, to consult me. No reappearance of tumor had taken place in any part of his body. Quick consumption, however, had set in with many bacilli in sputum. He was sent to Colorado, where he died in January of this year.

Creighton[1] first described in the dog, and later in man, the occurrence of a normal or tumefied species of skin-glands in the axillary region. They are situated under the skin, and a microscopical picture resembles fat-globules. They sometimes extend to the vicinity of the mammary glands. Their structure and functions class them as peculiar forms of sweat glands. The position of the tumors in my patient leads me to think there might be some anatomical relation between them and Creighton's sweat-glands. A careful microscopical examination showed, however, no trace of glandular tissue.

Case II.—D. R. B——, a full-blooded negro, aged fifty-three; weight, 225 pounds; height, 5 feet 7 inches; born in Maryland, and a cook by occupation, was forced seven years ago, through his malady, to leave his calling. Thenceforth the daily cleaning of business places furnished his means of livelihood. To his knowledge he was never forced to take to his bed from illness. Of his family the only one who lives in his memory is his mother, who never showed any growth on her body. She had a number of children, fifteen or sixteen, of whom he knows very little, but never heard of any similar affliction. He now has two sons, both being entirely healthy. As a young man he had a chancre, but no constitutional symptom.

In the year 1869, during a temporary residence in Alaska, he commenced to drink, and has since been conscientiously true to the habit. Seven years ago he first noticed the symptoms of his present complaint. The swellings first appeared and were noticed on the median line, extending along the nape of his neck; then they appeared on the inner side of his thighs, later on his arms, breasts, and legs, and on the outer edge of the lower jaw. The remaining tumors, the chronological sequence of which the patient was unable to give, are as follows: One on each side of the body back of the proc. mastoideus, on the right side the size of a hen's egg, on the left side that of a goose egg. One in the central line under the

[1] Charles Creighton, M.D.: Three Cases of Tumors arising from Skin Glands in the Dog, etc. Transactions of the Medico-Chirurgical Society, vol. lxv.

proc. ensiformis, in the regio epigastrica, the size of a hand. One on each side of the body, under the spina scapulæ over the teres major, about the size of a fist, on the left side larger than on the right. One on each side of the body in the lumbar region, a little larger than the one in the vicinity of the stomach, and the left one larger than the right. One on each side of the anterior inner surface of the thighs, extending from the upper boundary of the mons veneris to the lowest point of the scrotum. The surface measure taken longitudinally is on the right side 23 ctm., on the left 33 ctm.; the exact circumferences are as follows:

RIGHT.

Arm, 5 ctm. below the acromion, 53 ctm.
Arm, 5 ctm. above the apex of the olecranon, 42 ctm.
Forearm, 5 ctm. under the apex of the olecranon, 35 ctm.
Forearm, 7 ctm. below the apex of the olecranon, 35 ctm.
Wrist apparently normal, 18 ctm.
Circumference of hand around metacarpal phalangeal joints, 23 ctm.
Middle of first phalanx of index finger, 8½ ctm.
Middle of first phalanx of little finger, 7½ ctm.
Middle of first phalanx of thumb, 9 ctm.
Thigh, 16 ctm. below spin. ant. sup. ossis ilii, 77 ctm.
Middle of thigh, 59 ctm.
Middle of calf, 37 ctm.
Ankle, 27½ ctm.

LEFT.

Arm, 5 ctm. below the acromion, 49½ ctm.
Arm, 5½ ctm. above the apex of the olecranon, 47⅜ ctm.
Forearm, 5 ctm. under the apex of the olecranon, 35½ ctm.
Wrist apparently normal, 18 ctm.
Circumference of hand around metacarpal phalangeal joints, 21½ ctm.
Middle of first phalanx of index finger, 8 ctm.
Middle of first phalanx of little finger, 7 ctm.
Middle of first phalanx of thumb, 8⅝ ctm.
Thigh, 16 ctm. below spin. ant. sup. ossis ilii, 78½ ctm.
Middle of thigh, 56 ctm.
Middle of calf, 40 ctm.
Ankle, 31 ctm.

From the meatus auditor, extending on one side along the outer edge of lower jaw to the meatus on the other side, 40 ctm.
From the right corner of the mouth, across the lateral part of chin to the dividing line between head and neck, 14 ctm.
From the left corner of the mouth, across the lateral part of chin to the dividing line between head and neck, 15 ctm.

As his deformity gives him a certain degree of notoriety, he is perhaps rather proud of it. With one exception, these growths cause him no particular discomfort, and the only exception is the tumor in the acrobiculum cordis, which seems to press on the underlying organs and indirectly on the diaphragm, causing thereby difficulty of respiration. The patient at least attributes to this tumor the dyspnœa caused by even a slight effort. As lungs and heart are normal, his view may be correct.

If this difficulty increases he may perhaps consent to the extirpation of this troublesome tumor. At present, however, he is violently opposed to any sort of operation, being firmly set even against the excision of a small piece for microscopical analysis. I succeeded, however, to perform a series of experiments on him with regard to the Grosch theory, on the origin of these tumors. In order to obtain his permission I was unfortunately obliged to represent to him that these experiments would have a salient effect on the growths. I thought, if according to Grosch's theory, the growth and origin of these tumors had some relation to secretory disturbances of the sebaceous glands, or to their numerical decrease in certain areas of the skin, perhaps the anatomical association of the sebaceous and sweat glands would aid me to gain some confirmation, by an experimental demonstration of the absence or decrease of the sweat secretion in the tumefied parts.

By a series of subcutaneous pilocarpine injections I found that those parts of the skin covered with lipomata were conspicuously free, while the directly adjacent parts were covered with perspiration. Following are a few notes from my experiments:

June 30, 1893.—10.19 P.M.: Injection of 0.03 pilocarp. mur.; 10.21.30 P.M.: Salivation begins; 12.23.30 P.M.: Perspiration on back of head; 10.24.10 P.M.: Perspiration on forehead; 10.25 P.M.: Face perspires profusely, with the exception of those portions of the chin and cheeks occupied by the lipoma; 10.26 P.M.: Shoulders perspire freely. Nape of neck, seat of a large lipoma, is dry. 10.28 P.M.: Perspiration pretty nearly universal, but there is absence or quite a lessening of it on all places occupied by fatty growths.

June 23, 1893.—10.08 P.M.: Injection of 0.02 pilocarp. mur.; 10.17.15 P.M.: Salivation begins; 10.18.15 P.M.: Drops of sweat off the scalp; 10.20 P.M.: Perspiration over entire scalp; 10.20.15 P.M: Perspiration on forehead; 10.20.25 P.M.: Perspiration on ears and nose; 10.21.25 P.M.: Light perspiration on both shoulders. Nape of neck free from perspiration. 10.27 P.M.: Perspiration on hands and soles of feet. Ankles dry. 10.28 P.M.: Inner surface of wrist moist; 10.32 P.M.: Perspiration stops.

July 7, 1893.—9.45 P.M.: Injection of 0.015 pilocarp. mur.; 9.05.10 P.M.: Light salivation begins; 10.03 P.M.: Second injection of 0.015 pilocarp. mur., as no perspiration comes; 10.07.25 P.M.: Perspiration on temples; 10.07.45 P.M.: Perspiration on back of head and sides of head; 10.08.40 P.M.: Perspiration over whole head; 10.09.15 P.M.: Perspiration on both shoulders; 10.09.45 P.M.: Perspiration on breast; 10.10 P.M.: Perspiration on face and abdomen; 10.11 P.M.: Skin over tumor on neck dry; 10.12.30 P.M.: Thigh wet from perspiration. Tumors are dry. 10.15 P.M.: The whole back covered with perspiration except tumors in the lumbar region; 10.20. P.M.: Perspiration stops.

I took occasion to show this patient to the members of the San Francisco County Medical Society in the meeting of June 13th, and to demonstrate the results of a 0.02 pilocarpine injection in the following meeting of July 11th (see report of meeting in *Pacific Medical Journal*, July and August numbers). I am fully aware that these experiments only show an interesting fact. Although the anatomical associate location of the sweat and fat glands cannot be doubted, the equally close vicinity of the centres of secretory innervation and their physiological harmony can only be accepted as probable. These experiments, moreover, have only illustrated the destroyed or considerably decreased sweat-secretion of certain skin areas, but left it undecided if centrally or peripherically located causes were to blame for the disturbed function. The exaggerated knife-scare of the patient hitherto prevented an anatomical examination of the skin. I believe, however, that these investigations, as links of a chain later to be completed, are not without value.

If we try to analyze the two cases regarding their etiology, we arrive for the first one to about the following results: With the exception of the tongue, where the tumor is unilateral, the lipomata are arranged symmetrically. There also seems to exist a connection between the cessation of fat-storage in one part of the body and the consequent increase or neoformation in another. A supposed paucity of perspiration in those places where the symmetrical lipomata grew, could not be ascertained; the profuseness of perspiration in the axillary region may exist close to a dry spot, as demonstrated experimentally in the second case. With him the symmetrical distribution of the lipomata is classical; they are situated on their characteristic points of selection, and as a grand total he perhaps cannot be duplicated. Possibly his alcoholic excesses are partly responsible in causing these tumors, although his intemperance precedes their appearance by many years.

The chain of facts supporting the theory of Dr. Grosch's unfinished work shows some gaps yet. The distribution of the lipomata on fat people (especially in the first four cases of my additional list) does not always correspond to the distribution of glands and hairs. The cases, however, speak for a central cause; whether in the centres of the skin-glands only, remains to be seen. It would not be impossible to accept, as an auxiliary explanation, that the fat deposition, the general as well as the local

one, is regulated centrally with the aid of certain irritations arising from the resorption in the intestinal tract. This fat-formation may find its expression of morbid exaggeration in the growth of lipomata, as on the other hand local disappearance of fat occurs in certain atrophic changes.

A multiple growth of lipomata, accordingly, would signify a centrally-working irritation for a localized peripherical accumulation of fat, and in exactly as many centres regulating the involved parts as there are lipomata. If the irritations are symmetrical, we get symmetrically located lipomata; if not, there is irregular distribution. Should the objection be raised that a locally increased deposition of fat is no lipoma, we can point to the fat-polypi one finds in the abdominal cavity, the lipomata of the omentum, of the mesentery, of the kidney, and the enlarged appendices epiploicæ, to those forming in the skin as lipomatous skin-polypi, etc.[1]

I only wanted to mention here the possibility of such an explanatory attempt, as it seems to me to explain many things more perfectly. Theoretical speculations, however, are not the order of the day, and we must wait for further proof before their acceptance can be pressed.

LITERATURE.

The literature on multiple lipomata has been given by Grosch nearly completely, and I shall only add a few cases here which I found missing.

Lyod: Adipose Tumors Situated over the whole Body.
Harris: Fifty-eight Lipomata in one Subject.
Montmeja: Des Lipomes dits symétriques.
Brown: A Case of Migrating Lipoma.
Renard: Beschreibung zweier Menschen Mutter u. Sohn welche an d. meisten Stellen d. Körpers eine grosse Menge Fetthaut Geschwülste haben.
Morel-Lavallee: Lipomes symétriques des deux jarrets se comportant a la manière des Hernies, etc.
Later observations are:
Eve: Multiple Painful Fatty Tumors of Arms.
Sibley, W.: A Case of Diffuse Symmetrical Lipomata.
Wedel, J.: Ueber die Localization der subcutanen Lipome und Atherome.
Blaschko: Eine seltene erbliche Lipombildung.
Lancet, 1853, i., p. 60.
American Jour. of the Med. Sciences, April, 1873.
La France Méd. et Pharm., Paris, 1873, 20-44, 5-61-2, p. 6.
N. Y. Med. Jour., 1877, 25-44.
Med. chir. Ztg., Salzburg, 1815, 2-251.
Gaz. des Hôpitaux, Paris, 1857, 546.
Trans. of Path. Society, London, 1887, p. 23.
Ibid, vol. 39, p. 293.
Greifswald, 1889, ref. Vir. Hirsch für 1890, Bd. 1, p. 252.
Virchow's Archiv, Bd. 124, p. 175.

BACTERIOLOGICAL RESEARCHES INTO THE ETIOLOGY OF THE SO-CALLED CHRONIC RHEUMATIC JOINT INFLAMMATIONS.

By PROFESSOR MAX SCHÜLER, M.D.,

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I was unfortunately prevented from being present as a guest of the Pan-American Medical Congress at Washington, where I proposed placing before the American profession a report of some microscopical and experimental researches on the origin and etiology of the joint diseases due to chronic rheumatic ones, and to show there my microscopical, bacteriological, and pathological preparations, as well as some of the animals artificially affected with a similar or the same joint disease. Therefore I take the opportunity of presenting my views briefly in your well-known journal.

In a paper partly read before the twenty-first meeting of the Society of German Surgeons, 1892, and at full length published in the reports of this Congress, as well as in "Von Langenbeck's Archiv für klinische Chirurgie," Vol. 45, part 1, entitled "Chirurgische Mittheilungen über die chronisch rheumatischen Gelenkentzündungen," I explained the clinical and anatomical features of these joint diseases, based on the observation of one hundred and sixteen cases in my own practice. I confirmed and demonstrated that the swelling and some other external appearances of the joints are dependent on a characteristic chronic inflammation of the synovial membrane and of the synovial villous excrescences, which leads to an inflammatory growth or hyperplasia. I showed that light cases of this kind can become by degrees such very severe ones with an enormous accumulation of villous excrescences in the joint, which since Johannes Müller are called "Lipoma Arborescens," and make such immense knotty swellings and deformities of the joints, and cause such great deviations of the common position and of the natural use and function of the limbs, at times also such pains, that they often were erroneously believed to be a form of gout or of arthritis deformans. But they have nothing to do with gout or arthritis deformans, and also the name "lipoma arborescens" is not justified, as my close histological examinations exhibited the inflammatory origin of the excrescences.

[1] Virchow: Krkhfte Geschw., i., p. 379, etc.

Moreover, I found in the inflamed tissues of the synovial membrane and of the synovial villous excrescences, small microbes, short and clumsy, the central portions of which are lowly notched or grooved bacilli, with shining granules in the poles, which can be tinged by aniline colors. I found them also in freshly excised portions of joints of living patients, from which I had excised the whole synovial membrane thickly covered by hyperplastic villous excrescences ("arthrectomia synovialis"). I took, by means of a small aseptic puncture with sterilized instruments, out of a diseased joint which was filled with villous excrescences, a drop of synovial fluid or fluid of the tissues, and put this in a tube filled with stiff bouillon-peptone-gelatine. I was fortunate enough on the first trial to see the development of a culture of microbes, which represented in every point the same form and shape of the bacilli found in the inflamed tissues and in the villous excrescences of the joints.

This result induced me to repeat such puncture-inoculations in other more or less diseased joints and on other patients, in meat-juice, gelatine, bouillon, peptone-gelatine, etc.; and in every case the same short bacilli were found.

The puncture-inoculations I made with a puncture-needle of my own invention, a hollow needle with a stiletto exactly fitting the canal, and both obliquely bevelled. This and all other instruments before use were always sterilized by steam in my sterilizer, the trustworthiness of which I have tested on many occasions by bacteriological experiments.

Subsequently, I made experiments on animals with these cultures of bacilli. Injections in the joints of pigeons had no result, as possibly the quantities taken for the injection were too small. In rabbits small injections in a knee-joint caused a swelling of some weeks' duration. But larger injections of 0.5 to 1 gramme culture-fluid produced an increasing and enduring inflammation of the joint, with a large swelling and a large expansion of the capsule. The animal's limb lost in the beginning a little flesh, but recovered afterward, while the swelling of the joint remained. I killed these animals after two months, and found in the diseased joint no pus, only a little synovia containing few cells, fragments of cells, and numerous short bacilli of the same shape as in the cultures. The synovial membrane was inflamed and covered with many red or brownish villous excrescences ramified as the branches of a tree (dendritic), others more solid ones, leaf-shaped or digitiform, extended with club-shaped ends. They have a similar structure as the inflamed and hyperplastic villous excrescences found in the joints of men, and represent in miniature also a quite similar picture as the latter. Puncture-inoculations of these diseased joints of the rabbits, taken out shortly before the death, showed the same short bacilli cultures. I used these for the experiments on rabbits, with the same results. Also in a case where I injected the culture fluid through an aseptically made perforation of the lower epiphysis of the femur. This caused inflammation of the knee-joint with the same characteristic signs which I have described.

These researches and experiments demonstrate, or make it at least in a high degree probable, that the chronic inflammations of the joints with hyperplastic villous excres-

cences which we till now believed to be rheumatic, are produced by the influence of the bacilli first discovered by myself in the tissues, and are cultivated by puncture-cultures out of the inflamed joints.

By other experiments I demonstrated that these bacilli never cause suppuration. Small injections under the skin show merely a passing inflammation, swelling, and induration; larger injections kill the animals after twenty-four hours with signs of a septicæmia.

In the situation of the injection was an œdema, in which could be found the same bacilli. These could be cultivated out of the œdematous fluid, as well as in some cases out of the blood of the right heart, which abounded with bacilli.

I pass over other experiments, by which I endeavored to discover the possible ways of invasion of these bacilli in men. Perhaps I shall be able, on a future occasion, to give an account of my researches regarding this important question.

Not long since I had an opportunity of making puncture-inoculations out of the joints of one patient with the rather rare third form of "chronic rheumatism" of the joints, which we call "arthritis rheumatica chronica ankylopoctate," as it, according to my observations, certainly begins also with a chronic inflammation of the synovial membrane and with the growing out of villous excrescences, but later on leads always to a shrivelling of the capsule, and at last to anchylosis by partly fibrous, partly cartilaginous, partly osseous union of the joint. I have found, and at several times (loc. cit., and yet in my book, "Pathology and Therapy of the Inflammation of the Joints," Vienna and Leipsic, 1885) stated, that also on these coalescing joints mostly are left some parts of the synovial capsule with villous excrescences, remaining not united. These remaining parts of the capsule form a small pocket, or a hard knot, which give the appearance of a bony swelling or protuberance, but which is, according to my investigations, nothing more than a small expanded part of the capsule, with compressed and tightly-enclosed hard villous excrescences. They not infrequently cause swelling and pain, even after the joints have become quite stiff. The patient which I mentioned I saw for the first time four years before. Since then he has experienced a varied treatment in several clinics and hospitals, without benefit. He was a man thirty-five years of age, but looks like an old man quite contracted, and is not able to stand upright, as his hips and knee-joints are in an angular position. His left shoulder-joint is quite immovable, also some of his digital joints; the other joints of the arms are less stiff. The right hip-joint is in nearly right angular position and fixed. The right knee-joint is also contracted, but in a small degree movable; the other joints of the lower limbs are less affected. Some of the joints of the vertebral column seem also to be stiff. In the right anchylosized hip-joint, near the upper, outer, or posterior part of the acetabulum or of the joint, I could feel a very small protuberance, which was painful even independently of pressure. This condition I am inclined to take as a small remaining accumulation of villous excrescences compressed in a resting part of the coalescing capsule.

In the right knee-joint I could feel quite distinctly some hard villous excrescences in the synovial capsule near the outer border of the patella, which was also tender on pressure, and gave rise at times to pain and swelling. Out of these two places, on the hip-joint and knee-joint, I made, on September 1st, puncture-inoculations, with all measures of precaution in tubes and plates, with bouillon peptone gelatine, and in tubes with bouillon peptone agar-agar; one also in a small drop of bouillon peptone gelatine on a thin plate of glass, for a continued microscropical observation in a small sterilized glass case made for this purpose. To-day, five days later, I can say that also in these cultures are developed short bacilli of the same shape as described above. It seems, therefore, also, from this point of view, that I am justified in adding these joint diseases; though in the latter, owing to their inclination for anchylosis perhaps besides, yet other efficients may be active, what by further investigation, I hope, will be disclosed.

According to my researches, I must doubt if the acute rheumatism of the joints has such a near relation to these inflammations of the joints which we called till now "chronic rheumatic" ones as is believed in general. Then, in acute rheumatism of the joints are found usually only suppuration-producing cocci, mostly the staphylococcus or streptococcus; in one case, as I know, also pneumococcus; in all my cases of the so-called "chronic rheumatic" joint inflammations which I have till now by bacteriological means examined, I found always my short bacilli which never produced suppuration, but made in the joints of rabbits a most characteristic inflammation with villous excrescences similar to that which we find in the so-called chronic rheumatic inflammations of the joints of men. This induces me to believe that they represent an especial form of inflammation of joints caused by my bacilli, for which a preceding acute rheumatism of the joints may, perhaps, only prepare the place. I think that the short bacilli easily enter the joints which have been the subjects of acute rheumatism. I am inclined to believe that a similar influence can be derived from some other foregoing inflammations. As, according to my clinical researches, many patients with so called chronic rheumatic inflammations of the joints are affected by chronic catarrhs of the genito-urinary, nasal, and respiratory organs, I have the opinion that, perhaps, these will be found the source of the short bacilli. Or they may be found outside of the living body, and only by some especial influence enter the natural openings of the human body. These and other questions may find an answer after further investigation. Further study must also be applied to discover means and remedies for the care and healing of these dreadful diseases. We cannot be content and satisfied to know what produces these diseases; we must know how to prevent them, and if it is possible, how to free the diseased patient from this invasion. Let us hope that we may reach that which I call the fruit of medical knowledge. Over the biological properties of the bacilli found by myself, I will, with restriction, make the following statements: The bacilli yet described above are stained most easily by carbo-fuchsin, but they are very easily also discolored by acids, etc., often more than desirable. The protoplasm of the bacilli is mostly condensed in two parts, which are of a roundish, oval, or cylindrical shape, and lie closely, or are separated by a very small clearer part. The bacilli measure, according to measures with an ocular micrometer of a great Seibert microscope, lengthwise 2.24 to 2.76 μ, mostly 2.62 μ; in the breadth, 0.75 to 0.95 μ, exceptionally 1.02 μ. They are not always straight, but sometimes a little curved or angular. They are very easy to distinguish from tubercle-bacilli, as well by their shape as by the coloring reactions and by the mode of development in cultures.

According to the observations which I made till now with numerous cultures of the above-described short bacilli, I can say that they grow good in a temperature which must be a little higher than the usual temperature of our rooms, I will say 25° C. They grow, as it seems, better in a somewhat higher temperature; but I have not yet determined the "maximum." A preliminary condition for the growing is that the cultures are kept quite dark. Exposed to the sun or to the glaring daylight, they do not grow at all, or show only a very poor, scarcely visible vegetation, even when later again kept in the dark. After puncture-cultures in gelatine there appeared in the next two, three, or six days very small, separated white knobs or grains along the stitch in the gelatine; afterward a white-veiled swelling or soaking which unites the separated little grains and then liquefies the gelatine and last becomes more opaque white in a well-marked extension from above down. Or it begins the swelling and white clearing up in the gelatine along the extension of the puncture very soon, the gelatine liquefies in the same extension, then becomes from above down opaque white.

On sterilized glass plates begins the culture from small white or white-grayish spots, also here the gelatine becomes liquefied in the further stations of the growing. In bouillon, peptone-agar-agar, the cultures make white-grayish spots or little membranes, the same on cooked potato or carrot slices. On potatoes the cultures taken out of the joints of rabbits seemed to grow better than the cultures taken from the joints of men, some of which failed on potatoes.

September 5, 1893.

A CASE OF ACROMEGALY COMBINED WITH SYRINGOMYELIA.

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THE following history of a case which has been under treatment by Professor Starr and myself at the Vanderbilt Clinic for some months past will, I am sure, be of interest in that two rather rare disorders are combined in one and the same person.

Annie R——, single, aged thirty five, came to the clinic some three or four months ago complaining of a number of symptoms, weakness, anæsthesia, and the like, the first onset of which she claimed to be not over a year ago. She is five feet five and one-half inches in height and weighs one hundred and seventy-two pounds. The only particular illness she had ever had up to that time was some lameness at the hip joint, dating from a fall at the age of seventeen years. There is no specific history in the case.

Upon examination she presents the following complicated syndrome: Her face is very large and puffy; the lower jaw is particularly large; the hands are very large and stumpy (battledore-shaped). One photograph shows the face and hands and the other exhibits the hands alone, her sister's normal hand at one side having been taken at the same time for purposes of contrast. I am indebted to Dr. Power for these photographs. The patient does not know how long she has observed this increase in size, but that her hands, face, and feet have been appreciably enlarging for a year or more both she and her sister are aware. In the photographs it will further be noted that upon the left hand are numerous abrasions and small ulcers that have no disposition to heal. The nails are short, curved, small, brittle, and cracked.

FIG. 2.

As to motor symptoms, her fingers are somewhat flexed, the hands tending to take the *main en griffe* position. The possible movements of the fingers are very slow. The muscles of the shoulders are weakened, so that she is unable to lift them to her head. There is weakness of some of the spinal muscles, so that she has a lateral curvature. The thigh muscles are stiff, particularly in the left extremity, so that she walks with difficulty, cannot step upon cars or walk up-stairs. The left knee

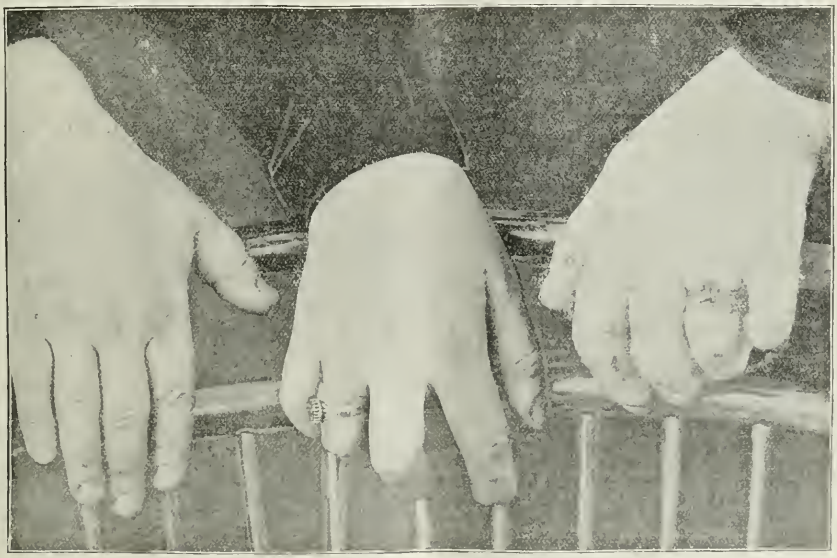

FIG. 1.

feels weak and is inclined to give way. She can stand on her heels and toes, showing that the flexors and extensors of the feet are normal. In such muscles as could be examined readily (ulnar distributions) there was partial Dg. R. The eyelids of both eyes droop a little. It is not a marked ptosis. There is rotary nystagmus in both eyes.

As regards the reflexes, there is myosis with sluggish pupils (the right reacting almost imperceptibly, the left not at all). There is a marked jaw-jerk; there are no wrist-jerks, elbow jerks, or tricep-jerks on either side; the knee jerk on the left side is notably diminished, but marked on the right side. There is no ankle clonus. She has difficulty in retaining her urine and frequently wets herself. Her breathing is shallow and she has slight difficulty in swallowing.

The sensory symptoms are a complete loss of pain and temperature sense in the left hand, forearm, and arm, extending upward on the shoulder and up the left side of neck. There is very slight tactile anæsthesia in the left hand and fingers. A very remarkable phenomenon is hypercryalgesia in the whole of the left leg extending upward some distance above the thigh and hip. Touch, thermal sense, and pain sense are unimpaired, but cold, moderate or great, produces a pain which she compares to burning. Though blindfolded and though several test-tubes with warm and cold water were employed, she would invariably jerk her leg away when touched by a cold one, exclaiming "It is hot," or "It burns." The drawing (Fig. 3) exhibits the areas of lost pain and temperature sense and of hypercryalgesia. There was no disorder of the visual fields.

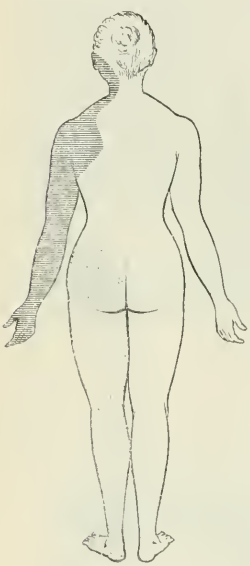

Fig. 3.

I have rather carefully examined the literature of the subject and have not found any cases similar to this in which both syringomyelia and acromegaly were present in the same person.

Since the above was written the patient died, August 4, 1893, with symptoms showing disturbance and failure of the nervous mechanism governing the cardiac and respiratory movements. Unfortunately an autopsy was resolutely prohibited.

Law and Medicine.—We have directed attention to the fact that railroad doctors are the poorest paid of all railroad employés, while railroad lawyers are the best paid. Farther, these latter become in a professional way so familiar with changes in railroad affairs that they are able to purchase or sell railroad securities to their own certain profit. In a well-known accident-insurance company a lawyer receives a salary of ten thousand dollars a year for about an hour's work daily; while a doctor, better educated and quite as able, who gives more than half his time in serving this same company, gets one thousand dollars per year. Comment is unnecessary. Of course the difficulty lies in the fact that the company wants this lawyer above all others, and pays him accordingly, while it would take anyone of dozens of doctors, should the one holding the place choose to resign it.—*American Lancet.*

THE TREATMENT OF BONE CAVITIES BY FILLING WITH COPPER AMALGAM.[1]

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The short time allotted to me prevents a review of all the work that has been done in regard to healing bone cavities. I shall only call your attention to some experiments I have made in the Moabit Hospital, in Berlin, during my time of service on the surgical staff, with a view of obliterating bone cavities, by means of plugging the cavity with inorganic material, following in the main the manner in which dentists fill carious teeth.

After attending a lecture of Professor W. D. Miller, delivered before the Association of American Physicians, in Berlin, where the pathological conditions of carious teeth were demonstrated, and the properties and antiseptic actions of some fillings explained, it occurred to me that some of these metals could be used in bone filling in place of other materials I had experimentally tried.

That foreign bodies can become encapsulated within soft tissues, as well as bone and even vital organs, is an established fact, which we often witness in gunshot wounds when the bullet is allowed to remain, although we do not know the exact process under which encapsulation takes place.

Although the conditions upon which the permanent encapsulation of fillings into bone depends are by no means so simple as in the case of carious teeth, the investigations and experience of the dental profession must, of course, form the basis of our experiments.

Above all, it was clear that the material used for fillings must be not only aseptic, but actively antiseptic, since it is certainly out of the question so to disinfect at one sitting the cavities which remain in the bones after chronic osteomyelitis or tuberculosis that all the bacteria in them are destroyed. If the filling is to become encapsulated it must, by virtue of its antiseptic properties, act upon the colonies of micro-organisms which may still be present, and thus destroy the exciting causes of the inflammation. Furthermore, such fillings must consist of a material which is light, non-poisonous, and hardens rapidly.

I am encouraged to make the present demonstration because of the interest a former presentation aroused at the Twelfth Congress of German Surgeons, and because I am desirous that the investigations so far made may be tested by others, and perhaps brought nearer to completion. For, although the question whether such fillings can heal within bones will soon be definitely answered, it will require years of observation to ascertain whether this method of bone-filling is to be regarded as an enrichment of surgical procedures.

Experiments were made with various metallic mixtures of as low a melting-point as possible, among others with the alloy of Wickersheimer, used for metallic corrosions of bones, which melts at 55° R. (156° F.), and the alloy of Lipp, which melts at 63° R. (174° F). But it soon became evident that these mixtures could not be of service, as they solidified in the funnel, and even if no funnel is used, the mixture does not flow properly if poured into a cavity which is below the above-mentioned temperatures. Attempts were made to transform aluminium into a soft mass, but as yet without success. With mercury, aluminium forms a spongy, porous mass, such as has been noticed when instruments of that metal have been put into a solution of bichloride.

Copper amalgam was made into a dough-like mass, in the manner customary in dental practice, by heating it in a spoon over an alcohol flame and rubbing it to a pillular consistency in a mortar. The cavity was either completely filled with the mass, or only coated with it, and a lighter filling material, a cement, gutta-percha, etc., used

[1] Read before the Surgical Section of the Pan-American Medical Congress Meeting, in Washington, D. C., September 5–8, 1893.

to fill out the defect. Plaster of Paris[1] (after Trendelenburg) at first was not used, because it is more porous and heavier than the above mentioned substances, and not so easy to manage; it also hardens more slowly, and is more liable to soil the surface of the wound. On account of the well-known instability of carbolic acid, it is not to be supposed that plaster-of-Paris fillings, made up with a five per cent. solution of carbolic acid, instead of water, will have any lasting antiseptic effect on the surrounding tissue. In one experiment, as we shall see further on, I used plaster of Paris after the cavity was coated with cotton amalgam, but as will be observed a great deal of shrinking took place.

Of cements the Harvard cement of Dr. Richter is particularly worthy of mention. I had made for my use a quantity of the lighter white sort of this cement, which shows the fewest pores. It also requires a much shorter time for hardening than any other cement, and shows no shrinking after hardening. On account of the expense of the latter I have set to work and experimented with a number of different cements and putties, and found that one of the most reliable cements, and at the same time very inexpensive, could be obtained in the oxychloride of zinc. I used this in my later experiments in connection with the copper amalgam. Its preparation is as follows: Zinc chloride, 4 parts; aqua dest., 5 parts; glycerine, 3 parts. Of this solution 10 c.c. is intimately mixed on a slab, by means of spatulas, with 10 gm. of oxide of zinc. It will remain in a pasty condition for about four to five minutes and then set, and show, upon being split with a hammer and chisel, none or very fine pores. Use was also made of Abbey's non cohesive goldfoil, the antiseptic effect of which had already been shown by Miller.

On account of the troublesome technique to properly apply copper amalgam, the substance which shows the most marked antiseptic effect on plate cultures of bacteria, I made use, in some experiments on animals, of coarse filings instead of the dough-like mass. The cavities were coated with this, and then filled out with cement, guttapercha, etc. We shall see, after describing the post-mortem condition of the bones that underwent filling, which is to be preferred.

The property of copper amalgam to check the development of various sorts of pathogenic and non-pathogenic bacteria has already been shown by Miller,[2] even in the case of fillings of this metal, which had been carried for years in the teeth. This has since been confirmed by Behring,[3] in his article on the means and methods of disinfection, and I have been able to show a direct antiseptic effect by the death of bacteria in plate cultures. I prepared, in the usual way, plate-cultures on agar agar of bacteria (staphylococcus aureus, staphylococcus albus, etc.), and after the colonies were fully grown placed a copper amalgam filling on the plate. Before putting in the fillings inoculations were made from the plates on agar tubes, and after twenty four hours other inoculations were made from colonies within a space of 1 to 2 ctm. from the edges of the fillings. In spite of many attempts, nothing ever grew except in the tubes inoculated before the fillings were put on the plate.[4]

It is worthy of note that the greenish discoloration appears much sooner and more markedly, and spreads over a larger space, if the metal is put on a plate on which the cultures are already grown than if it is put on immediately after the preparation of the plate. In the latter only a narrow green ring is formed around the filling; perhaps the more extensive discoloration is due to the chemical changes produced by the bacteria. Copper amalgam of various manufactures were used, and at one time it seemed that some possessed more marked antiseptic properties than others, but this was a result obtained during the time my incubator was out of order, and shows that if the plates are exposed to ordinary room-temperature the free space surrounding the copper amalgam will be much larger than when the plate-cultures are at once transferred to the incubator that registers 37° C.

The animal tests were made on dogs, some of which were operated on at one, others at two sittings. In order to get the filling closely into the bone defect it is desirable to have the cavity as dry as possible. In this case we are confronted with considerable difficulties with which the dentist does not have to combat, for we have to deal with a tissue richly supplied with blood, while the dentist has only to excavate the tooth, dry it with the hot air blast, and separate it from the mouth with rubber sheeting, in order to obtain a perfectly dry surface. such as we cannot obtain even with the tampon and the Esmarch constrictor. I have made use of the hot-air blast, and after considerable modifications I had constructed a hot-air blast by which a steady stream of hot air of 70° to 80° C. is obtained. It consists of a spiral platina loop, 20 ctm. long, which is lighted by an accumulator supplied with forty cells. It works very much on the style of a Paquelin thermo-cautery, a continuous supply of air being driven through the platina loop by a double blast. Before drying out the cavity with this I swab with alcohol and ether in order to facilitate the drying. Pressing in the filling will cause a slight capillary hemorrhage, not enough, however, to cause any disturbance.

Experiment I.—Bitch, aged six months. In morphine narcosis the upper epiphysis of the left tibia was chiselled open, the periosteum being also taken away and the medullary portion gouged out with a sharp spoon. The hemorrhage was checked by tampons, swabbing with alcohol and ether, and use of the hot-air blast, and the cavity was coated with prepared copper amalgam. During the filling a little blood had to be occasionally wiped out. The hollow of the filling itself was not filled out. Edges of wound closed with catgut sutures and a plaster-of-Paris bandage applied. The next day the bandage was found gnawed off and the stitches torn open. Another bandage was applied, but as this also was torn off and the wound began to secrete, no further attempt at bandaging was made. By the third day after operation the animal used the operated leg for standing and walking, and jumped into his stall without difficulty. The wound closed completely in eighteen days. On the twelfth day the depression in the filling was still visible through a little opening. Forty-four days after the operation the animal was killed. Wound of incision completely cicatrized and of a reddish appearance, plainly recognizable. Inner side of tibia, where it was chiselled open, shows marked thickening; no fistula present. On sawing the bone through longitudinally it appears that the filling has been made smaller by the formation of new parosteal bone-tissue, the newly formed bone-tissue having pressed upon it until the hollow which was in the filling has entirely disappeared. Only a slight crescent-shaped form shows that the filling originally filled around bone-defect, or rather covered it as a thin coating, leaving the middle of the cavity entirely empty. The surface of the section of bone in the neighborhood of the filling is somewhat darkened and discolored by the sawdust produced by sawing through the copper amalgam.

Experiment II.—Bitch, six months old. In morphine narcosis the same operation was performed as in the former experiment, except that a filling of the Harvard cement of Dr. Richter was used instead of copper amalgam. Progress of the healing about the same; after fifteen days the outer wound is entirely closed. Animal killed in forty-four days. The tibia shows marked thickening over the site of the filling. No fistula. On sawing through, the filling is seen to be completely healed in. In this case also the sawed surface in the neighborhood of the filling shows some yellowish discoloration, due to the sawdust from the cement.

[1] Dreesmann: Knochenplombirung, Beitr. z. Klin. Chir., ix., Heft 3.
[2] Mikroorganismen der Mundhöhle, 2. Aufl., 1893, p. 277.
[3] Desinfection, Desinfectionsmittel, und Desinfectionsmethoden. Zeitsch. f. Hygiene, Bd. ix.
[4] Since the above was in print I have learned from Professor Miller that he has also confirmed the above results by experiments on the pulp of living teeth.

Experiment III.—Dog, eight months old, operated on in two sittings. In the first sitting the bone was chiselled open in morphine narcosis, the medullary portion removed with a sharp spoon and a tampon of sterilized gauze inserted. Operation the following day, without narcosis. Tampon removed, the cavity lined with a coating of softened copper amalgam and then filled with Richter's Harvard cement. Soft parts sutured with catgut and bandaged. Bandage several times renewed, but always gnawed off; progress of the healing slower than in the preceding cases. In this case there existed a deep fistula, through which the filling can be felt with a sound. The filling, however, seems to be firmly healed in. The fistula closes twenty-eight days after the operation, and the wound heals in the course of the next week. The animal is killed forty-three days after the insertion of the filling. In the soft parts the cicatrized fistula may be easily distinguished from the rest of the scar tissue by its more reddish color. The tibia being freed from the soft parts, a not yet calcified spot may be recognized as the former bone fistula; it is, however, completely covered with thick granulations, which is connected on the inside with the bone tissue. It is much more difficult to saw through the bone in the region of the filling than in the preceding cases. After the bone is sawed through it is seen that a small portion of the gauze had been left in the cavity. The filling is considerably broken up, which I explain as the effect of the pulling of the saw teeth, which were clogged with shreds of gauze on the filling, which was not firm enough to stand such violent treatment. In this case also the neighborhood of the filling is discolored by the amalgam.

The next experiments were carried on to determine how older animals would stand the operation of bone-filling, and whether they would become perfectly encapsulated, as also to find out which was the better technique—filling with softened copper amalgam or that with coarse filings of the metal.

Experiment IV.—Dog, eight years of age, sixteen pounds. In morphine narcosis the tibia is chiselled open, as in the previous experiments. Instead of softened copper amalgam, the coarse filings are used, with Harvard cement. After sixty days the animal is killed. The defect in the bone over the site of the filling is partly closed with new bony tissue, partly with granulations. A fine sound cannot be passed through anywhere. After sawing the bone open, longitudinally, it is seen that the filling is somewhat torn. This seems to show that the filling does not fit as tight when the filings are used instead of the softened metal, as we witness this tearing of the filling in every case where the former was used.

Five more experiments were made with older animals, and while all the fillings remained in and the wound became smaller, not enough time elapsed between the date of operation and the day the animals were killed to be definite as to the time required in old dogs to become perfectly encapsulated.

So much in regard to the experiments thus far made. In addition to the successful experiments just reported, Professor Sonnenburg has made use of the method of bone filling, proposed by me, on two patients suffering with chronic osteomyelitis, and while they were unsuccessful they still offer a great deal of interest, and show that, if properly made, a filling can become encapsulated. The operations were made at a time when the technique was anything but well tried. Again, it shows that no one should attempt bone filling in the above manner with copper amalgam until after he has practised it either on the dead or lower animals, and acquainted himself thoroughly with the different manipulations. *There is a decided difference between simply filling a hole in a bone and the proper adjustment of a filling to a bone cavity.*

One filling came out after two months; it had been tightly seated for about fourteen days, when it became loosened and was gradually expelled. Right behind the filling was found a sequester, about one-fourth of an inch broad and one inch long, which evidently had been overlooked at the time of operation. The filling itself, as will be observed, is rather irregular; instead of being evenly covered with copper amalgam, the latter has been crowded on to one position. It will be seen that on one side newly formed bone-tissue is closely attached to the metal and cement. As these cases will be reported by Professor Sonnenburg I shall not loose time in dwelling upon them here. One case of bone filling for chronic osteomyelitis, of ten years' standing, in which I have inserted a filling weighing approximately 120 gm. (4 oz.), has been left to me by Dr. Rieger, Director of the Surgical Department of the All Saints' Hospital, in Breslau. The results of this case will be published by the surgeon in charge as soon as definitely known.

No one is more conscious of the incompleteness of this work than myself, and in giving it I entertain hopes that those of you, gentlemen, who have material at their disposal will take up this subject, and reveal whatever merits or demerits it may possess and give the results whatever publicity they deserve.

In addition, I have tried copper amalgam in the treatment of chronic gonorrhœa by application of sounds covered with that metal.

Experiments are also in progress to see whether O'Dwyer's intubation tubes, covered with copper amalgam, have any direct action upon the primary focus in diphtheria, and are capable of preventing the downward spread of this disease.

TRAUMATIC UTERINE HEMORRHAGE—SOME NEW ADAPTATIONS.

By WALTER S. WELLS, M.D.,

NEW YORK.

On July 20th I was called to attend Mrs. M. G——, aged about twenty-eight, pluripara, who was flooding copiously, and vomiting. After meeting the exigencies named, I learned that about seven weeks before the date above named this woman had a severe accident, causing abortion. While hanging out clothing upon a line running upon pulleys, one of which was attached near the window out of which she was leaning, and as she was grasping this end of the line with one hand while adjusting articles of clothing with the other hand, the near pulley broke, and the whole weight of the clothes line with its bearings suddenly precipitated her against the stone base of the window, upon which her abdomen collided with sufficient force to rupture the intra-uterine envelope of a three months' fœtus. She clung to the rope until her screams brought neighbors to her assistance, and in due time, after removal to bed, the remaining contents of the uterus followed the first gush of amniotic fluid and blood.

Notwithstanding the sanguinary spectacle and the serious nature of its cause, these well-meaning neighbors with stolid assurance, proceeded to administer to the situation without medical aid, leaving nature to dispose of such remnants of secundines as might have remained, and to institute measures to obviate subinvolution.

No obstetric binder had been applied at any time since the accident up to the time of my call, nor had the patient given herself the customary rest in bed, but as soon as she could, got up and "dragged herself around," to use her expression, "swaddled in towels" to absorb the blood flowing incessantly from the uterus.

She even went up and down stairs and out upon the streets in this condition for seven weeks, including the hottest weather we have had in this city for years. By this time, as might be expected, the woman was in a condition of extreme exhaustion; but her staying powers were to be yet further tested, and this happened from some overexertion in her domestic avocations. This last accession in degree of the hemorrhage I found accompanied by marked disturbances of a sympathetic character—vomiting, diarrhœa, and præcordial pains.

The most urgent indication was to arrest the fur-

ther loss of blood, and this was promptly accomplished by packing the entire vaginal tract with dry Tannin, using a hollow cylinder about eight inches in length and fully one inch in the diameter of its bore, with a piston working loosely so as to allow the easy pressing out of the astringent powder upon and around the os uteri. Two charges of the cylinder filled with dry Tannin completely packed the vaginal space.

An obstetric binder was extemporized by folded towels and a strip of muslin, and was being fastened to maintain pressure directly over the site of the uterus, simultaneously, by the aid of an assistant, while the Tannin tampon was being placed.

Long experience of the constringing effects of Tannin thus applied in cases of flooding was here confirmed, for the flow stopped and did not return, notwithstanding the recurring vomiting. This persistent vomiting became the next urgent difficulty to overcome.

As usual after great hemorrhages, from whatever source, the patient complained of intense thirst, but it had been impossible to alleviate this by reason of the rejection by the stomach of all fluids, warm or cold, that had been tried.

I sent for a siphon of Kumysgen, and prepared it according to the directions. The patient drank with avidity the foaming preparation, and we watched with suspense the result. For a few seconds the stomach rebelled and efforts were made to dislodge, but the action of the carbonic acid gas generated during the solution of the Kumysgen was very rapid upon the mucous membranes of this organ, and no more vomiting occurred. The diarrhœa also ceased as the enteric tissues became engaged with a preparation they could assimilate. In short, for at least a week the patient took no other preparation, food or drink, nothing but Kumysgen.

I did not dare to make any experiments in such a desperate case, once we had the flooding and vomiting under control. I did not think it safe even to give an anodyne to quiet the shock of such hemorrhage, believing better results would follow the nutrition, which was rapidly developing, once the stomach became settled.

The patient was extremely emaciated, from non-retention of food during the seven weeks since the abortion occurred.

Several days after tamponing, a characteristic discharge of a sero-sanguinous fluid, offensive in odor, came from the vaginal tract, and the remnant of Tannin which had not been absorbed was removed by simply using the finger.

Naturally, the sudden compression and contraction of the uterus in a state of hemorrhage, caught and retained within its cavity more or less blood, and this, with shreds adherent since the accident, being subjected to the requisite degree of temperature, were beginning to undergo decomposition. By this time the patient could be safely lifted upon a vessel and have the fountain syringe used to cleanse the parts, using about a quart of very warm water containing Zymocide ʒ j.

After being removed to bed I proceeded to use Osmotic treatment, as shown in the New York MEDICAL RECORD, May 27th.

Having selected a sponge of suitable size, and prepared as heretofore explained, with the aid of a speculum and forceps this sponge, saturated in water three parts and Zymocide one part, was placed in direct apposition with the os uteri, where, withdrawing the instruments, it was left for twenty-four hours. At the end of this time, the sponge, by means of the string attached, was withdrawn, saturated, as expected, with the débris of decomposing clots and shreds. The sponge being thoroughly cleansed in warm water containing a little spirits of ammonia, was again replaced, charged with the solution of Zymocide, directly to the os, and left as before.

This Osmotic medication was repeated every twenty-four hours, until, the amount of discharge brought away becoming daily less in quantity and more free from odor, it disappeared after eight or ten days, and as it rapidly and successfully fulfilled its mission, there has been no occasion for its renewal.

Perhaps the most satisfactory testimonial in favor of the treatment of this woman, so near the confines of the Great Hereafter, is the fact that, about a week ago, she walked into my office looking very little the worse for her siege.

She was still wearing an abdominal supporter, which she puts on in bed in the morning, and removes after she lies down for the night.

212 WEST THIRTY-FOURTH STREET,
August 18, 1893.

A NOTE ON THE DETERMINATION OF REFRACTION AND ACCOMMODATION.

BY EDWARD L. MEIERHOF, M.D.,
NEW YORK.

IN spite of the various appliances devised to measure the refraction and accommodation of the human eye with special reference to the objective method, and as there are quite a number of ophthalmologists who are satisfied with their findings as measured by the ophthalmoscope and ophthalmometer, the majority of eye practitioners prefer to rest their judgments on the determination of vision, in addition to other methods, by the subjective examination influenced by a mydriatic on all persons up to the age of decided presbyopia, also excepting myopes of a high degree and amblyopia from various other causes. Those who use the shadow test combine their determination with the subjective examination influenced by mydriasis. The objections of those who determine their findings by the ophthalmoscope and ophthalmometer are, that it saves time and relieves the patient of being subjected to annoyances of atropinization. This would seem to indicate that they have not become fully convinced of the utility of homatropine for the same purpose that atropine is used. Although homatropine has been in use as a cyclopegic over twelve years, there are numerous practitioners who still use atropine; yet we have had the published tabulated results of competent experimenters showing the reliability of homatropine for the purpose of paralyzing the ciliary muscle, serving all the practical purposes that can be obtained from atropine. Of late years a large number of the patients who consult the oculist are sent, not on account of any organic disease of the eye or apparent disturbance of vision, but for various disturbances to the nervous system, such as dizziness, headaches, nausea, etc. Many, if not most, of these patients have what is commonly accepted as normal vision. In theory the muscle of accommodation is at rest when looking at a greater distance than eighteen feet, whereas in practice we find such not always the case. It is this continued accommodation, known as ciliary spasm, which may mask an astigmatism or cause one, and for that reason no objective method can adequately determine the refractive state of the eye; therefore, those who practise putting the ciliary muscle in abeyance are bound to obtain the most exact findings in their refraction work. There are most competent men who claim to be able to measure the refraction by means of the ophthalmoscope, which no doubt in many cases can be done; however, I have subsequently seen some of those cases for whom cylindrical lenses were ordered who had no astigmatism; and on the other hand, astigmatism of two and three dioptrics was found which had been previously ignored. These cases usually occurred in those who had the standard normal vision,[1] and were usually subject to nervous disorders of the head. As previously stated, a large amount of the practice of the oculist consists in determining the state of the refraction and accommodation, and the examination of the ocular muscles with special reference to various sensory and motor disturbances of the nervous system, the former usually of the head. In view of the enormous amount of benefit that is frequently obtained by removing eye strain, this should be done with special regard to

[1] Emmetropia based on the fine minute angle.

the action of the ciliary muscle; but it cannot always be done by dependence on the objective method of examination of young hypermetropes, and in some cases of presbyopes. Regarding the use of atropine or homatropine, I have had no reason to complain of the results of the latter as a cyclopegic. In connection herewith I would like to state that I found it necessary to abandon the gelatine disks of homatropine, as I found they could not always be depended on, and in place I employ a three per cent. solution each of homatropine hydrochlorate (Merck's) and cocaine hydrochlorate in mucilage (U. S. Phar.), and this I have found eminently satisfactory, it seldom being necessary to instil more than once a large drop of this mucilaginous mixture to obtain the necessary paralysis of the ciliary muscle, when the gelatine disk caused unpleasant scratching by its mechanical presence until it was dissolved. With the mucilaginous mixture no annoyance in this particular is observed at all. I am aware there are some former advocates of homatropine who have in a measure given up its use, as they claimed its action was not always as efficient as atropine. I have not found this difference so material as to warrant the use of atropine, with its eight to twelve days effect, compared to the forty-eight hour influence of homatropine, except in the cases of young children, where the inconvenience of atropine is minimal.

57 East Sixty-fourth Street.

Progress of Medical Science.

Composition of the Fœtal Urine Secreted in Utero.—Dr. Helme has made a communication to the *British Medical Journal* on this subject. He believes it important in that it provides the missing link of the chain of evidence that the fœtal urine is one possible and probable source of the amniotic fluid. Numerous analyses have demonstrated the presence of urea in the liquor amnii, the amount varying in different cases, but always increasing as gestation advances, and proportional to the size and weight of the fœtus. The presence of urea has been explained in three ways: 1, By transudation from the maternal structures; 2, by excretion from the fœtal kidneys and skin; and 3, from both these sources. Very few observations on the urine from the fœtal bladder have been made. Urine obtained from two sources, however, has been examined: 1, That obtained from the bladder of the dead born child; 2, that obtained by catheterization from the bladder of the live-born child. Analysis of these urines have demonstrated the presence of urea in each series, but in one case only has a quantitative estimate been made, by Gusserow-Wislicenus, the amount found being stated as 6.06 per cent.; probably, however, this is a printer's error, as has been suggested by Krukenberg; for von Ziemssen, in his "Cyclopædia," says: "On the other hand, when fluids have been abstained from up to a point when really unendurable thirst has been sustained, I have never found that more than 6.1 per cent. of urea was contained in the urine. The twenty four hours' urine of a strong, well-nourished adult, himself no great consumer of fluid, contains an average quantity of two or three per cent. of urea. Dr. Helme happened to be called to a lingering labor, in which he delivered the child with forceps (low operation). The child was a healthy full-time male, and was born head first. Immediately the breech was expelled, and before any attempt to breathe was made, the child began to micturate. The doctor seized the penis with one hand and a clean cup with the other, and then caught the remainder of the urine—just over half an ounce. This urine was carefully preserved and analyzed. For comparison he obtained another specimen of urine from the same child—six drachms—passed eight and a half hours later.

From the results of his studies the author submits the following propositions: 1. The fœtal kidneys secrete actively during intra-uterine life. 2. The urine of the normal living fœtus contains urea. 3. The urine of the normal living fœtus contains kreatinin. 4. The fœtal renal excretion is a possible source of origin of the liquor amnii; this is shown by the presence of urea and kreatinin in both these fluids 5. The presence of sulphates and phosphates in the liquor amnii, and their absence from the fœtal urine, would point to there being an additional source of origin of the liquor amnii. 6. The amount of urea and kreatinin excreted in the urine undergoes a marked increase during the first few hours after birth. 7. Kreatinin is normally present in the urine of the new-born child and suckling.

Recurrent Dislocations of the Shoulder-joint.—Dr. Richard believes that the present methods of treating recurrent dislocations of the shoulder joint are faulty. Both resection of a part of the capsule and of the head of the bone give fairly good results, but they do not allow complete restoration of the movements of the joint. In order to obviate this defect he has devised the following operation: The deltoid muscle is separated from the clavicular and acromial attachments by incision and turned backward as a thick flap, and an assistant retracts the coraco-brachialis muscle; by this means the attachment of the subscapularis to the humerus and the front of the capsule of the joint is laid bare. The upper and lower borders of this muscle are then forced from their attachments to the capsule. The arm being rotated inward, the operator now passes three strong silk sutures through the thickness of the capsule in front of the joint above and below; they are passed through the substance of the subscapularis muscle. The sutures are passed in a vertical direction, and placed about two centimetres from one another. The ends of the sutures are tied, and by this means the anterior wall of the capsule is made thick and rigid. The cut surfaces of the deltoid are approximated with sutures, and the superficial parts then sewn up. The nerve-supply of the deltoid is not involved in the operation and hence no paralysis follows.—*La Semaine Médicale.*

Microbes and Arrow Poison.—A French naval surgeon, Dr. Le Dantec, has examined the arrow-poison used by the natives of the New Hebrides. The results of his investigation have been published in the "Annales de l'Institut Pasteur." The New Hebrideans employ for this purpose earth from marshy places; it contains both the septic vibrio and the tetanus bacillus. From experiments on animals, it was found that when the poison was old, they died from tetanus; when fresh, from septicæmia. In the case of man, tetanus has always been observed. The practical outcome of all this is: wounds inflicted by poisoned arrows should be treated with every antiseptic precaution, and freely enlarged, if necessary, so as to remove all foreign bodies. The observations of Dr. Le Dantec are against the equine theory of tetanus, for there never have been horses in the New Hebrides. The author also draws attention to the fact that the Pacific Island savages were the first, and probably the only ones, to make use of "microbes in the art of war."—*Medical Magazine.*

Nail-biting among Children.—Dr. Berillon finds that the habit of nail-biting among children is extremely common. In a public school in Paris, out of 265 pupils examined during the month of April last, 63—that is to say, nearly one-fourth—were addicted to the practice. Curiously enough, results vary greatly in different districts and in different schools in the same district. It seems that girls are more given to the habit than boys. In one girls' school in the Department of Yonne, 11 out of 21 were confirmed nail-biters. In another girls' school the proportion was 61 out of 207 pupils, and, of those 61, 15 were found to be in the habit of biting the nails of both hands, and the others of biting only those of one hand. M. Berillon recognizes that nervousness has much to do with the habit.

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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THE YELLOW FEVER EPIDEMIC IN BRUNSWICK.

THE appearance of yellow fever in epidemic form in Brunswick, Ga., carries with it an impressive lesson, regarding neglected preventive measures, which should not be lightly regarded. There does now not appear to be any doubt that the first cases which occurred three weeks ago were not properly reported, and the result of such neglect of a plain duty is painfully apparent in the consternation, if not ruin, of the inhabitants of a once fashionable resort. It is also well known that the disease was brought this year to Brunswick, at the end of July, by two infected vessels from the West Indies, and that the immediate result was five deaths. Then the policy of concealment for business purposes obtained, and the result is as we have stated. It seems a great pity that such should have been the case when we consider how much nowadays can be accomplished by the early adoption of proper measures for staying the progress of this insidiously spreading and disastrously fatal epidemic. When we assume that the infectious agent of this plague is present in the dejecta of those suffering from the disease, and that accumulations of fecal matter and of other organic material of animal origin furnish a suitable nidus for the development of the germ when climatic conditions are favorable for its growth, it is easy to see that a removal from local influences, and the enforcement of thorough local sanitation, are the principal hopes for safety of those who are still threatened. The prompt establishment of camps away from the city, the enforcement of sanitary regulations by the health authorities, are proper, and would be proportionately more effective if they had been more timely. As it is, the stricken town may not be itself again until frost appears, and it will be a mercy if the disease, in consequence of the unprotected fugitives, is not spread to other localities.

THE VALUE OF THE EHRLICH STAINS IN THE STUDY OF DISEASE.

IN a recent editorial article we referred to the results obtained in studying the anæmias by means of the Ehrlich process of staining. Dr. William S. Thayer (*Boston Medical and Surgical Journal*, February 16 and 23, 1893) has gone over this subject very thoroughly, giving the technique of the method, and the results obtained by himself and others in other diseases than anæmia. Dr. Thayer believes that these methods can be used to a considerable extent by the clinician, and that one can, by their help, obtain additional data that may be most useful in diagnosis. We have not space to give here a description of the technique, but it may be said that a thin film of blood is obtained and dried on the cover-glass. This is then stained by certain acid aniline colors of which eosin is the type, and by basic anilines, such as methylene blue, and by a mixture of the two.

The acid color stains the red cells and certain granules in the leucocytes called eosinophiles; the basic color stains other granules in the white cells, called basophiles, and a third and most numerous type of granules, called neutrophiles, are stained by a mixture of acid and basic coloring matter, the acid being in excess. By means of these stains the leucocytes are differentiated into various forms. We have already given one classification. Several more detailed subdivisions are made by Uskow, Tschistowisch, and Ehrlich, but for practical purposes the division that may be used is that into (1) small, mononuclear leucocytes; (2) large, mononuclear, and transitional forms; (3) multiple neutrophiles, and (4) eosinophiles.

The red blood-cells may be divided into the nucleated and the ordinary forms. The former show variations in size and appearance which give evidence of degeneration or regeneration.

We have already referred to the results of the staining methods in the anæmias. With regard to general diseases Dr. Thayer states that in all acute inflammatory processes there is more or less leucocytosis. In tuberculosis, however, the blood examination shows that the anæmia of those cases is more apparent than real, and that there may be even a high proportion of red cells and hæmoglobin. This fact may be of service in distinguishing between tuberculosis and obscure malignant trouble of the abdominal viscera. In typhoid fever the blood examination may be of especial value. There is, we are told, a sharp falling off in the relative number of multinuclear elements, it may be under fifty per cent. This fall begins usually in the first week, is more sharply expressed in the second or third or even fourth weeks. The percentage of "over-ripe" elements begins to increase about three to twelve days after the disappearance of the fever. The percentage of the small mononuclear elements average only once and a half as much as that of the large mononuclear, instead of being normally three times as great. The decrease in the number of the multinuclear elements depends not so much on the parallel increase in the percentage of the small mononuclear leucocytes as on the increase in the percentage of the large mononuclear cells. This point appears to be one of considerable importance, and on various occasions Dr. Thayer has been able to make a probable diagnosis of typhoid fever when without the examination of the blood it would have been extremely difficult.

As regards pneumonia, the most valuable point shown is the fact that this disease is usually associated with an extensive leucocytosis, which is coincident with the fever. That in some fatal cases this leucocytosis has not been observed is of great interest, but of how much importance we cannot yet be sure.

Among other diseases which are generally associated with a leucocytosis, in which, however, no other impor-

tant changes have been noticed, are diphtheria, acute rheumatism, endocarditis, and small-pox.

In scarlet fever the blood-changes are such as enable one to gain some help in prognosis. Parasites and bacteria can for the most part be demonstrated by the Ehrlich stains.

THE COMPOSITION OF THE FŒTAL URINE SECRETED IN UTERO.

Dr. T. Arthur Helme has recently made (*British Medical Journal*, June 17th) an observation which he considers of importance, in that it "provides the missing link in the chain of evidence" that the fœtal urine is a possible and probable source of the amniotic fluid. It has long been known that the latter contains urea, the amount varying, in general terms, directly according to the period of gestation and the size and weight of the fœtus.

It is pointed out that this urea may come from transudation from the maternal structures, by excretion from the fœtal skin and kidneys, or from both of these sources. It is, furthermore, somewhat surprising that the literature of medicine does not contain a single analysis of healthy fœtal urine, or urine from the bladder of a healthy child before it has breathed. Here has been the missing link, the lack of positive evidence that the urinary secretion of the normal fœtus contains any urea. Urine was obtained from the bladder of a still-born child, but this was post-mortem urine and had presumably undergone certain changes. Urine also obtained by catheterizing the newly-born child fails to respond to the requirement, because it is not the product of a child which has never breathed.

I happened, says Dr. Helme, to be called to a lingering labor, in which I delivered the child with forceps (low operation). The child was a healthy full-time male, and was born head first. Immediately the breech was expelled, and before any attempt to breathe was made, the child began to micturate. I seized the penis with one hand and a clean cup with the other, and then caught the remainder of the urine—just over half an ounce. This urine was carefully preserved and analyzed. For comparison I obtained another specimen of urine from the same child—six drachms, passed eight and a half hours later.

The first specimen, it will be seen, fulfilled the condition of true fœtal urine, because at the time of its passage the child had not yet breathed.

Examination of the two specimens showed that neither contained sugar, albumin, nor phosphates. The first specimen contained no sulphates, while they were present in the second. Both had chlorides, urea, and kreatinin, the latter being present in larger amounts in the second specimen.

An examination for urea by the sodium hypobromite method showed 0.66 grain of urea per ounce in number one, and 1.32 grain per ounce in number two; that is, urea is present in considerable quantity in the urine of the normal living fœtus. It follows, therefore, that this urine is a possible source of the urea found in the liquor amnii, and that the fœtal renal secretion is a possible source of the liquor amnii itself. Kreatinin is known to be present in small amount in the amniotic fluid, but its presence in the fœtal urine is especially interesting.

It will be seen, therefore, that there is pretty conclusive evidence that the liquor amnii is, in part at least, fœtal urine. Dr. Helme concludes as follows:

1. The fœtal kidneys secrete actively during intra-uterine life.

2. The urine of the normal living fœtus contains urea.

3. The urine of the normal living fœtus contains kreatinin.

4. The fœtal renal excretion is a possible source of origin of the liquor amnii; this is shown by the presence of urea and kreatinin in both these fluids.

5. The presence of sulphates and phosphates in the liquor amnii, and their absence from the fœtal urine, would point to there being an additional source of origin of the liquor amnii.

6. The amount of urea and kreatinin excreted in the urine undergoes a marked increase during the first few hours after birth.

7. Kreatinin is normally present in the urine of the new-born child and suckling.

THE SURGICAL EXHIBITS AT THE WORLD'S FAIR.

The *Medical Standard* begins its editorial page with the following remarks, heavily leaded:

"Visitors to the World's Fair will find the principal exhibits of medicinal preparations, surgical instruments, and other displays of especial interest to physicians, in the gallery of the Manufactures and Liberal Arts building. This announcement is due both to the medical profession and the exhibitors, since there are so many objects of interest in the vast area of the ground floor that the equally important display in the gallery is too often forgotten. The gallery is easily reached by numerous stairways, and in the variety, beauty, and richness of its exhibits will compare favorably with, if not excel, the other treasures of the great exposition. The medical, pharmacal, and surgical exhibits are a treatise, every page of which is replete with interesting demonstration of the marvellous evolution of medicine."

A correspondent of *Le Progrès Médical*, Dr. M. Baudouin, writing from Chicago, tells a somewhat different tale. He begins with the statement that the medical congress which met in Chicago (?) last May was a failure, partly because physicians from the East did not attend, and partly because of the diversion caused by the prospective congresses in Washington and Rome.

He then directs his attention to the medical and surgical exhibits at the Fair. These do not, he says, compare at all favorably with the similar class shown at Paris in 1887. Only two large surgical houses had exhibits of much value. "The New York and Philadelphia surgical firms did not think it worth while to have themselves represented." The present exhibit consists of a "motley assortment of bandages, trusses, and glass work, which show only too well the American habit of sacrificing everything to the useful." "What a difference," he adds, "from our Parisian products!"

There are some surgical instruments which are "sufficiently original," but these are few. Most of the apparatus is essentially the same as that in Europe. The surgical instruments, he adds deprecatingly, are cheaply nickle plated. As compared with Parisian instruments,

the American are less artistic, less elegant, and more clumsy. He refers here to the ordinary surgical instruments. As regards prothetic apparatus, the French "remain the masters." Unhappily, he says, the Americans prefer cheap instruments. "It is only the surgeons of the Eastern hospitals who know how to appreciate the real value of elegance and the merits of Parisian productions."

The trouble with the Western surgeons, says M. Baudouin, is in brief that they have never seen a good thing, and hence do not know that they haven't got it. Furthermore, "by reason of the patriotic vanity" [so conspicuously absent in the French] "which is the characteristic of the Yankee, he believes that whatever he possesses must be the very best."

The Columbian Exposition, says our philosopher, will do more harm to Americans in general than it will do good to Chicago. For it will enable Europeans to dissect the industrial production of the United States and will show that, apart from a few special things, such as means of transportation and lessening of hard labor, Europe is vastly ahead." We have, he says, been led to have some credence in the wordy prospectuses seasoned *à la Marseillaise* which have been put forth; on testing them we find some deceptions."

The criticisms above quoted are thoroughly French, and may be taken with much salt. Yet there is perhaps some truth in them.

The "patriotic vanity" of the Yankee will receive some comfort from the following comments, made by an English critic who writes to the *British Medical Journal*.

"The World's Fair at Chicago is replete with interest to everyone, and especially to medical men, sanitarians, and social observers. For, apart from its general artistic and industrial features and the unrivalled architectural and landscape attractions of the Chicago exhibition, its ethnological, demographic, and medical and surgical exhibits are of surprising extent and completeness; and furnish abundant material for those who care to unite intervals of serious study with general sight-seeing on a great scale. In anticipation of the needs and wishes of those who may now be disposed to substitute an American tour for the Roman pilgrimage, I forward some details which may readily be supplemented from the usual sources."

The Time of Profit.—

I love the pleasant time between
The growing time and riping,
When vines and trees all burst in green,
And little birds are piping.
When on the apple-tree the fruit
Bears promise of fruition—
Until the small boy starts to root—
You see I'm a physician.

A Ripe Old Age.—Mrs. Margarita Rivera, grandmother of Governor Calan, of Coahuila, died at Monterey, Mexico, at the age of one hundred and thirty-two. She was born in Spain, and came to Mexico over a century ago. She recently received from the Archbishop, at Madrid, a copy of the Cathedral record of her birth. Her health for the past several years had been very feeble, and she was confined to her room.—*Annals of Hygiene.*

News of the Week.

Medical Society of the State of New York.—The following Business Committee has been announced by the President of this Society, Dr. Bendell: Dr. Henry Flood, of Elmira; Dr. L. Bolton Bangs, of New York; Dr. Edward Clark, of Buffalo. Communications regarding papers for the next meeting of the Society, February 6, 1894, can be addressed to them. F. C. Curtis, M.D., *Secretary.*

The Cholera.—The latest reports show that cholera is very widely distributed throughout Europe, and is still slowly spreading. The disease exists in Russia, Bulgaria, Germany, Austro-Hungary, Galicia, the Netherlands, France, Belgium, Italy, Smyrna, and, lastly, in Constantinople. As regards England, outbreaks or isolated cases have occurred at Grimsby and Hull, and, it is alleged, at Bradford, Sheffield, Rotherham, and Belfast.

Dr. Anton Weichselbaum has been appointed Professor of Pathological Anatomy and Director of the Institute of Pathological Anatomy in the University of Vienna.

Dr. Carl Beck, of this city, desires us to state that his remarks on page 378 should read, "I do not, however, approve of the method of resection in sero-fibrinous exsudations, as recently recommended in Germany."

How the Charity Patient got the better of the Surgeon.—A young man was admitted into the Jewish Hospital at Buda-Pesth, so badly injured that the surgeon decided to perform an operation upon him. While beginning to operate on the patient's left arm the surgeon looked at his watch, and after finishing with the case he noticed that his watch had been stolen from him by the patient's right hand. The thief was handed to the police for the continuation of "treatment." Fortunately, the surgeon recovered his watch, but unfortunately lost a patient.

A Post-office Ruling Regarding Disease Germs.—The *Boston Medical and Surgical Journal* for August 24th, states that the Postmaster-General has made a ruling that disease germs are to be classed with unmailable articles, no matter how securely they may be sealed.

The Second Pan-American Medical Congress.—The affairs of the next Pan-American Medical Congress are placed in the hands of an international executive committee, one member from each country, and that committee decided that the next meeting shall be held in the City of Mexico, at a time yet undetermined. It is probable that the winter season will be selected, and that the Congress will be held five years from this date, with Professor Rafael La Vista, of the University of Mexico, as its President.

Professor Pasteur has been elected honorary member of the German Medical Society of New York City. His letter of acceptance was read before the Society at the meeting on September 11, 1893.

The Congress on Medical Jurisprudence met in Chicago August 14th. It was sparsely attended, and attracted but little attention. Most of the medical congresses have been utter fiascos.—*Medical Standard.*

The Chicago "Keeleyites" are at war. The "Graduate" claims that Keeley pours his financial favors on the "Banner of Gold," albeit the "Graduate" has sent

"hundreds to Dwight." The "Banner of Gold" has in its corps several "journalistic" exploiters of Keeleyism in the daily press. The "Graduate" charges these with having received from Keeley an undue amount of cash as a reward for their "faithfulness to the cause."—*Medical Standard.*

The Illinois State Board of Health deserves credit for the recent decided step it has taken in the best interests of the profession. The London Polyclinic and the Chancellor Remedy Company some time ago made application to the Secretary of State for license to incorporate. The objects of the proposed corporation were stated to be the treatment of diseases, the prescribing of medicine, and the performance of surgical operations. Dr. Scott, Secretary of the State Board of Health, upon learning of the applications, protested against the issuance of licenses, on the ground that the objects stated were not sufficiently explicit.

Trephining in the stone age was done, according to Dr. Munro's *Fortnightly Review*, by scraping the skull with a sharp flint, though there is occasional evidence of its use in a sawing manner, such as obtained when the ruder implement was superseded by one of metal. The process was almost exclusively practised upon children, probably on account of the facility with which it could then be accomplished, and probably also as an early precaution against those evils for which it was esteemed a prophylactic. What the dreaded evils were, was suggested by Dr. Broca, who while he believed that the operation was primarily conducted for therapeutic purposes, saw behind these the apprehension of a supernatural demoniacal influence.

Experimental Physiology on the Human Subject.—An advertisement recently appeared in a New York daily, offering $5,000 to any man who would submit to an experimental surgical operation involving some risk. One hundred and forty-two answers were received. It is said that two physicians in Ecuador are the advertisers, and that they wish to establish a gastric fistula, and repeat the observations made by Beaumont on St. Martin.

Relief for Hay Fever.—The capriciousness of hay fever, and the occasional relief obtained from an entirely empirical method of treatment, warrant the publication of any means which has proved successful, in the hope that it may be of use to some other person afflicted with this annoying and disabling disease. Feber, of Hamburg, reports his own case, which had been so severe as to necessitate his using a closed carriage all through the summer. His relief was brought about from accidentally noticing that in the winter a coryza was usually accompanied with hot ears, which regained their normal temperature when the discharge from the nose was established. He determined to try a reversed order of effect on the hay fever in the summer, and began accordingly to rub his ears until they became red and hot. It is now the third year that he has been able to lead an endurable existence during hay-fever season. "As soon as the least sensation of fulness in the nose appears, there is recognized a certain amount of pallor in the ears. A thorough rubbing of the ears, at times even to contusion, has always succeeded in freeing the nasal mucous membrane from its congestion. The rubbing, however, must be thorough and repeated as often as the least symptom of congestion returns to the nose. Since using this means I have been able to take long sandy walks, sit and even sleep with open windows, or pass an evening in my garden without distress. Several patients have had the same relief from this treatment, always in proportion to the thoroughness of the rubbing, and I hope by this means some other physician may be able to give his patients the same great relief."—*Boston Medical and Surgical Journal.*

Doctors' and Lawyers' Fees.—We had a great excitement a few weeks ago in San Francisco (*Pacific Medical Journal*). Men who scarcely knew each other and were in the habit of passing with the slightest recognition, stopped, clasped each other's hands, looked earnestly into each other's faces, spoke in a subdued tone of voice, and showed all the evidence of having heard portentous news. Nothing else was talked of at the clubs, chestnuts were at a discount, and even club scandal was neglected for the time. The great daily papers as well as the weekly news scavengers lent their assistance to fan the popular excitement. John W. Mackay, the many times millionaire, had been shot by a would-be assassin; this, however, was not the cause of the excitement (shooting a man, even a millionaire, in California, has long since ceased to be a novelty). The excitement was about the fact that two medical gentlemen who extracted the bullet and saved the millionaire's life had charged him $12,500. For the too little sympathy that the millionaire received when he was shot, everybody, press and paper, made up for the neglect now. Millionaires congratulated each other that they were not in need of medical service, and hoped when their taking-off time came, their departure would be a sudden one—no chance for a physician to wreck their estate. The foolish fellows in their excitement forgot that their estates were in no danger of being wrecked, forgot that their attorneys would protect them. Since recovery from his wounds and the $12,500 indignation shock, he has asked the Probate Court for permission to distribute the property and close an estate for which he was executor. Among the items of expense which he incurred as executor of this estate is attorney fees $26,160; for what? for piloting this will through the Probate Court, an automatic procedure that required neither skill, ability, learning, nor judgment. Will John W. Mackay explain why he was willing to allow the attorney $26,160 for the service rendered, and refused to pay his physicians $12,500 for services that required much more individual skill and judgment and a thousand times more responsibility on their part than was required of the attorney? The $26,160 item created no excitement, but one newspaper seems to have noticed it, and congratulated the attorney on having received a good fee. Perhaps the daily or weekly press will explain why a millionaire should not pay a physician as liberally as he does an attorney. Another attorney of this city is receiving the congratulations of the press and his friends on the receipt a few days ago of a fee of $75,000. The attorney received one-fifth interest in the estate, which was then involved in litigation. What would be thought of a physician who would undertake to cure a patient for a certain interest in his (the patient's) estate?

A Death from Chloroform.—A sudden death occurred on the 20th instant, as the result of the administration of chloroform in the Seney Hospital. The patient was a male, aged fifty-five, who had a dislocation of the shoulder. The house-surgeon advised against the administration of an anæsthetic, but the patient persisted to the contrary. After a few whiffs of the vapor he suddenly expired with cardiac paralysis. It is a question if ether would have had the same effect. At all events it proves chloroform to be a dangerous and tricky agent under the circumstances, and will add another experience to the danger of giving it the benefit of a doubt when a safer anæsthetic is at hand.

To Investigate the Coroners.—The Grand Jury of this city has issued subpœnas for the coroners to appear and answer the numerous charges of neglect of duty in not responding more promptly to calls for their services.

Clinical Instruction in Contagious Diseases.—The story comes to us that two young physicians, who were pupils at the Vanderbilt Clinic, have been stricken with small-pox as a result of a clinical lecture on a supposed case of varicella. Aside from the sad outcome of the venture, an impressive lesson is thus given regarding the necessity of educating medical men to a better knowledge of the contagious diseases than now obtains, and also under circumstances of proper precautions against spreading the contagion. But what excuse has a teacher for being so ignorant of the general symptoms of small-pox as to make such a mistake possible? Those who may escape the contagion will at least congratulate themselves that they have seen one real case of small-pox. In the meantime, however, the disease is liable to spread in many heretofore unsuspected localities. It will be worth while for those gentlemen in charge of clinics and dispensary classes to be careful for a while how they diagnosticate supposed cases of chicken-pox.

Obituary.

HENRY B. MILLARD, M.D.,

NEW YORK.

A CABLEGRAM from Paris announces the death in that city of Dr. Henry B. Millard, on September 14th. Dr. Millard was born in Oneida County, New York, sixty-one years ago, and was graduated at Hamilton College in 1855. Three years later he was graduated from the medical college of the University of the City of New York. He entered upon the practice of medicine in this city. Afterward he became a homœopathist. In 1887, however, he returned to the regular school, and became a fellow of the Academy of Medicine of New York and of the American Academy of Medicine. He was also chosen foreign corresponding member of the Academy of Medicine of Paris, of the Verein Deutscher Aerzte of Prague, of the Société d'Hydrologie Medicale, of Paris, of the Royal Academy of Medicine of Rome, and an honorary member of the Société Anatomique of Paris.

At home he became a member of the New York County Medical Society, the New York Pathological Society, and the New York Society of Medical Jurisprudence and State Medicine. He was also professor at the New York Medical College and Hospital for Women in West Fifty-fourth Street, and a member of the State Board of Examiners. Most of his foreign honors were won for him by his published books and essays, and especially by his treatise on Bright's disease of the kidneys, for which he received the gold medal of the New York Medico-Chirurgical Society in 1884.

For the last twenty years Dr. Millard had spent all his summers in Paris. He had been ill from typhoid fever.

EDWIN N. COLT, M.D.,

BROOKLYN (E. D.), N. Y.

DR. EDWIN N. COLT, who was regarded as the oldest practising physician in this State, died recently at his home at 85 Morton Street, Williamsburg, in his eighty-third year. He was born in Hinsdale, a small village near Pittsfield, Mass., on August 7, 1811, and in his early years was educated by the dominie of the village church. Afterward he attended the Wilbraham Academy at Wilbraham, Mass., and, in 1828, entered the Berkshire Medical School. He was graduated in 1832, and associated himself with hospitals in Albany. Sixty years ago he went to Williamsburg, where he practised up to the time of his death. It always gave him pleasure to describe his first visit to Williamsburg. He said he got on a boat at Peck Slip, this city, and a treadmill, worked by a horse, was the motive power. Williamsburg's population was then only about four hundred and fifty, and there were but four doctors in active practice.

WILLIAM T. WHITE, M.D.,

NEW YORK.

WE regret to announce the death, on September 17th, of Dr. William T. White, aged sixty-four years. Dr. White was a man whose character was highly esteemed, and whose services to the medical profession have been very great. His career was an active one, and he will always be closely identified with the medical history of this city and State.

He was born in Richmond, Me., and was graduated from the New York Medical College in 1855 after a preliminary course at the Bowdoin College Medical School.

He was afterward demonstrator of anatomy at Bowdoin. His professional activity is well shown by the various positions of responsibility which he occupied. For eight years he was chief surgeon of the Panama Railroad on the Isthmus. For twenty six years he was a member of the New York Academy of Medicine, being at different times its Secretary and Vice-President. He was also a member of the County Medical Society, the American Medical Association, trustee of the Geneological and Biographical Society, and one of the founders of the New York State Medical Association and the New York Physicians' Mutual Aid Society. He was also Vice-President of the New York Medico Historical Society and one of the board of managers of the New York Society for the Relief of Widows and Orphans of Medical Men.

For fifteen years Dr. White was attending surgeon at the Demilt Dispensary. He was formerly visiting surgeon at the Presbyterian Hospital and the Charity Hospital on Blackwell's Island. For twenty-one years he was attending physician at the Home for the Relief of Aged Indigent Females. In late years he was best known as the editor of the Medical Register for New York, New Jersey, and Connecticut. He was also, though not himself a veterinarian, the President of the New York College of Veterinary Surgeons.

PROFESSOR LYMAN BARTLETT HOW, M.D.,

HANOVER, N. H.

PROFESSOR LYMAN BARTLETT HOW, M.D., of Manchester, died in Hanover, N. H., on Friday, September 15th, of consumption. He graduated from Dartmouth in 1860, and from the medical department in 1863. He had been Professor of Anatomy at Dartmouth for twenty-five years, and held the place until this year, when failing health compelled him to give it up. Dr. How was fifty-five years old, and leaves a widow and two daughters.

Society Reports.

Pan-American Medical Congress.

First Meeting, Held at Washington, D.C., September 5, 6, 7, and 8, 1893.

(Special Report to the MEDICAL RECORD.)

(Continued from p. 381.)

THIRD DAY, THURSDAY, SEPTEMBER 7TH.

SESSION called to order at 9.30 A.M. Prayer was offered by Rev. George Elliott, D.D. A brief response to the Congress on behalf of Venezuela by Dr. Rivero Soldivia. MR. ERNEST HART, of London, was introduced and spoke in substance as follows:

Qualifications for Success in Medicine.—Sir Astley Cooper, who was the model of a brilliant surgeon and an accomplished gentleman, was accustomed to give to every candidate for graduation from the London College of Surgeons the following advice: "You are about to enter upon a noble and difficult calling. Your success will depend upon the possession of three things: First, knowledge and the habit of systematic study; second, continual industry; and third, moral character. Without the first, no one can wish you to succeed. Without the second, you will never be able to succeed. Without the third, if you do succeed, your success can bring you no happiness." This advice is an admirable summary of all text-books on the private and public conduct of medical men. Nothing more than this is really necessary, and a vital question both in England and the United States at the present time is, whether it is necessary to add anything definite to the rules laid down by the great English surgeon.

Code of Medical Etiquette.—This question has until recently been regarded as answered in the negative, but under the stress of modern civilization, of competition, and of the temptation to advertise in various ways, it has been reopened and calls for new discussion.

Such a code as does exist has a strong and logical basis. It exists no more for physicians than for the public. It does not rest upon a trades-union spirit. Such a spirit has been erroneously attributed to it by the public, who have stigmatized it as an evidence of narrowness.

Etiquette of the Law.—The medical profession is but one of many. The legal profession has its code, which is enforced by the discipline of the bar. It provides that any lawyer who is not, in the broadest sense, a gentleman in all his dealings with his fellows, should be by them avoided. The claim that a code limits the liberty of a legal practitioner is propounded only by those who would turn liberty into license. Liberty is a blessed word, but compulsion is often a much more blessed word.

Necessity of a Medical Code.—Can all the precedents of the past be cast aside? Can all the "case law" of the daily complications of medical life be disregarded? If physicians were purely abstract moral creatures the golden rule alone would suffice as a code. But it must be remembered that men are not perfect, and that without a particularized code even the best of them are apt to decide wrongly in their own favor doubtful points, even where medical "case law" exists applicable to such instances. To enter on a medical life is a mission as well as a mode of living, and there is demanded the spirit of self abnegation which alone crowns missionary effort.

London College of Physicians.—This body has a board of Censors who are called upon to decide in all cases where its members may complain that the spirit of medical ethics has been violated by their associates. The rules of these Censors have not been regarded as perfect, and additions thereto have been made as the conditions of modern medical life have seemed to demand. The Medico ethical Section of the British Medical Association simply elaborates the rules of the London and other colleges.

Consultation with Homœopaths.—There is no logical basis on which we can meet any men who practise exclusively one system of therapeutics. Their position is an abnegation of reason, and as well might the Catholic and agnostic meet at the bedside of a dying man to offer him the consolations of religion. Nor is there, moreover, any reason whereby a consultation should be held merely for purposes of diagnosis. We do not meet at the bedside to answer riddles or solve conundrums. The medical man is primarily a healer, and the same rule of non-association should govern in surgical as well as medical cases.

Modern Quacks.—Johnson's dictionary defines a quack as a boasted pretender of a knowledge of physic which he parades in public places. The possession or non possession of a degree is no essential condition of quackery; but the latter is rather embodied in a love of advertisement and boasted pretension. Such men want no code.

The modern quack is one who allows himself to be interviewed by the public press. Through its columns he proclaims his views on new methods of treatment, new drugs, new operations, and the latest new alkaloids and antitoxines. If he attends a prize-fighter or a ballet girl, or the President of the United States or any other statesman, he unfolds through the ubiquitous reporter the secrets of the sick-room. Thereby is he false to the Hippocratic oath, which is binding in the conscience of every conscientious physician. He tampers with secret remedies, and frequently derives pecuniary profit from their sale.

The Public as well as the Profession Benefited.—All such courses are condemned by a proper code. Such a condemnation provides alike for the safety of the public as well as harmonious relations between medical men. The true physician conceals no useful knowledge from his fellows. The discoverer of a new remedy is like a clergyman who discovers a new dogma or doctrine in new religion which assists to salvation. Any physician who sells his birthright for a mess of pottage is false to his profession, a traitor to himself, and a traitor to humanity.

A motion was introduced and carried, to the effect that the members of the International Committee be continued in office till their successors be appointed, and that they be authorized to appoint sub-committees which shall represent each country sending delegates to the Congress as may be necessary.

The following resolutions were presented from the Section on Hygiene, Climatology, and Demography:

"*Resolved*, That it is the sentiment of this section that in view of the prevalence of Asiatic cholera in Europe at the present time, and the constantly increasing number of foci of infection, immigration from European countries in which cholera exists should be temporarily suspended, as this action affords, in our opinion, the only certain means of averting a threatened invasion by the disease of the countries of the American continent;" and

"*Resolved*, That the resolution be reported to the general session of the Pan-American Medical Congress, with a request for its adoption and speedy transmission to the executives of the several countries officially represented therein."

These, with another resolution requesting a reprint of Dr. Shakespeare's work on cholera for distribution among the countries represented in the Congress, were referred to the International Executive Committee.

FOURTH DAY, FRIDAY, SEPTEMBER 8TH.

Prayer was offered by REV. BYRON SUNDERLAND, D.D.

Owing to the absence of Dr. J. B. de Lacerda, of Rio de Janeiro, his address as announced on the programme was omitted.

Brief addresses were made on behalf of the Republic of Columbia by DR. GARCIAS, and the Republic of Honduras by DR. FERD. C. VALENTINE. The latter said that Honduras was a small country with a large debt,

but it possessed a salubrious climate, and is furthering the cause of education, the liberty of the press, life's great post graduate school.

The report of the International Executive Committee was next read. It was, in the main, a statement of what had been done in executive session with reference to the various resolutions which had been referred to it.

The resolution from the Section on Hygiene, Climatology, and Demography regarding the appointment of a cabinet health officer, as reported in the session of the previous day, had been adopted by the Committee, and the secretary was requested to inform the several governments of this action.

The number of sections was reduced by combining several with each other.

The Committee decided to hold the next Congress in the City of Mexico, in either 1896 or 1897. The exact date was not settled upon, owing to the uncertainty as to when the next International Congress might be held.

In regard to the resolution relative to the suspension of immigration from cholera-infected countries, the Committee decided that it was unwise in their judgment to take action thereon at the present time.

It was further voted to publish the address of Dr. Pepper, the President of the Congress, in advance of the regular transactions. A resolution was adopted from the Section on Pharmacology, providing that a society should be formed for the purpose of studying the American flora from a medical point of view, and for the establishment of a Pan-American pharmacopœia; also for providing for a uniform standard of medical education in the various countries.

Dr. A. L. Gihon, United States Navy, introduced a resolution providing for the disinfection, without discrimination, of all baggage of immigrants, dunnage, and crews of immigrant vessels entering American ports, thereby making doubly sure the precautions now taken at points of departure; furthermore, that these measures should be carried out at all times, and not merely during the prevalence of epidemics.

The thanks of the Congress were voted to the President of the United States, Congress, the officers of the Army, Navy, and Marine Hospital Service, general and section officers of the Congress, the local committee, lay press, and transportation companies.

In closing the final session brief addresses were made by the Hon. James C. Phillippo, M.D., of Kingston, Jamaica, on behalf of the southern countries, and by Mr. Ernest Hart, of London, on behalf of the foreign visitors.

Dr. Pepper spoke a few closing words defining the scope of the Congress in relation to the work of the American Medical Association and the various special societies in the United States. He believed now that the work of organizing the medical profession of the Western hemisphere was completed.

The Congress then adjourned.

SECTION ON GENERAL MEDICINE.

Third Day, Thursday, September 7th.

Filaria Sanguinis Hominis.—The meeting was opened by a paper on this subject by Dr. P. G. de Saussure, of Charleston, S. C., who said the disease is increasing in Charleston. The negro is more liable to the disease. It is not hereditary. It is more common in the lower classes. There is no diagnostic symptom. It can only be found by examination of the blood. It has been found in a number of patients who had no symptoms. The method of infection is not known. It has been supposed that it is carried by the mosquito.

The author read histories of 33 cases who had symptoms as follows: 24 had chyluria or hæmato-chyluria; 14, lumbar pains with abdominal colic; 13, intestinal dyspepsia with diarrhœa; 10, heart murmurs with rapid pulse; 7, lymphangitis and cold abscesses; 4 fever and chills; 12 had chylocele.

The chief danger to life is that the adult worm may become lodged in the heart.

Two of the cases only proved fatal. The embryo was only found at night. Treatment was not successful in curing the disease in any case.

The paper was discussed by Drs. G. E. Fell, of Buffalo, N. Y., J. Gardiner, of Indiana, and J. M. Postle.

Dr. V. C. Vaughn said that the geographical distribution was quite well marked. He considered the paper a very valuable contribution.

Dr. de Saussure closed the discussion.

Cholera Asiatica, 1892.—By Dr. J. Drummond Burch, of Aurora, Tex., was the second paper. He dwelt on the following points: So long as the mud of the Ganges is sacred, so long will cholera trouble the earth. During the Sepoy rebellion native troops were governed by grades of caste. The great difficulty is in transacting ordinary business while carrying out sanitary laws among a population so resembling their sacred river, its fifteen hundred miles of "variety of phases," having its source in the nail of the great toe of Vishnu's left foot. This endemic of India was first noticed in Djelalabad, Afghanistan, a town largely Hindoo, in December, 1891. Pilgrims carried it to the great Hurdwan Fair, about two hundred and fifty miles north of Lucknow, by March or April, 1892. Thence, "commerce having been engrafted on religion," it traversed much of the route of 1831, as shown by Surgeon-General Cornish. Dr. Grebentschikoff affirms the present epidemic is a continuation of a pandemic which began its course in 1881. The Golden Horn was frozen over, the first time since 1849. The coldest winter known in Europe, for years, did not arrest it. The Paris epidemic not believed by some to be directly connected with this epidemic travelling from India. Filth does not generate cholera, nor cleanliness exempt from it. The most generally accepted theory is that Koch's comma bacilli are the cause. Semmola says this doctrine at best is based only on a hypothetical basis, and results that are established solely in the laboratory. Malignant epidemics of cerebro-spinal meningitis, typhoid and typhus fevers, have their causes in unhygienic conditions; cholera and the eruptive fevers seem to be confederated through the germ theory, of which so much and so little is known. One may breathe small pox; he must swallow cholera. What will affect man does not affect lower animals. Man alone of all living creatures is susceptible to the cholera virus. Hoffkine's demonstrations to show the value of anti-cholera vaccine, 400 in India, without any untoward symptoms. Koch says comma bacilli die quickly when dried. Comma bacilli lately discovered in intestines of flies. Bacteria may be carried by paper money. Drs. Acosta and Rossi, on two notes of the bank of Spain, weighing about fifteen grains, estimated 19,000 septic germs of various kinds. Dr. Reiche notes the difference in symptoms in the epidemic at Hamburg and those already known. Petechiæ or ecchymosal spots over the bodies of some cases, as seen principally over the joints of sufferers in the epidemic of cerebro-spinal meningitis in Texas in 1890, in which all cases were complicated by articular rheumatism. Enteric fever as a complication rarely seen at Hamburg. Opposed to cremation because of peculiar morbid anatomy of cholera. Reiche thinks Koch's discovery confirmed at Hamburg. The hypodermoclysis and enteroclysis of Cantini. Surgeon Lieutenant-Colonel Lewins, M.D., says his father originated the saline rectal and venous injections in 1832, so "new" to some modern writers In discussion Macnamara says, if laudanum must be used to retain comma bacilli in intestines of a guinea pig for experimental purposes, is it not a good argument against its use in treating the disease in man? Strong argument for inoculation is the fact that persons once affected by cholera are somewhat immune. A note received from Sir Andrew Clark, M.D., on treatment, stated that he believed that every case must be treated on its merits, and that no one plan was to be recommended.

Dr. Fullerton, of Columbus, O., said that cholera

should be treated by quinine, gr. ten, every hour for three or four doses. He said that he believed this amount would inhibit the growth of the bacilli in the intestine.

The Part Taken by the Medical Profession in the Discovery of America was the third paper, read by Dr. A. M. Fernandez de Ybarra, of New York. Due credit has never been given to the medical profession for its part in this great event. The intentions of Avicenna, the advice of the Florentine physician, Paul Toscanelli, to Columbus, the opinion of Dr. Garci Fernandez, of Palos de Moguer, to the Prior of the monastery of La Rabida, the report of Dr. Chauca, who accompanied Columbus in his second voyage, paying with his life his professional devotion, are sufficient evidence that physicians took an active part in the discovery of America.

There was no discussion of this very interesting paper.

Afternoon Session.

Clinical Notes on Amœbic Dysentery, by Dr. H. A. West, of Galveston, Tex. He said: Attention is called to the practical importance of the subject in consequence of the diversity of opinion in regard to the definition, varieties, and etiology of dysentery, and especially the non recognition by the general medical profession of the casual relations of the amœba colli in the production of dysentery and the wide dissemination and frequent occurrence of this form of the disease.

Attention is also called to the following points: 1. Importance of a correct definition. Dysentery is not, as is usually taught, a morbid entity, consisting of an inflammation of the large intestine, essentially the same in all forms and climates, varying only according to climatic and other modifying conditions; on the contrary, the term dysentery should be used in a general sense to express a group of inflammations of the large intestine, partly of specific and partly of non-specific origin. 2. The adoption of the following classification will do much toward dissipating the existing confusion, viz., acute catarrhal, acute diphtheritic, amœbic, and secondary dysentery. 3. Amœbic dysentery is more widely disseminated and occurs with greater frequency than is generally supposed. 4. To emphasize the probable entrance of the amœba through impure drinking water. 5. To note the characteristic and uniform symptoms of this form of dysentery. 6. The essential chronicity and difficult cure depending upon the character and location of the lesions. 7. The necessity of combating the excessive anæmia and wasting by the use of a more liberal diet than is generally prescribed. 8. To urge the importance of cleansing and antiseptic irrigations as a rational method of reaching and destroying the amœba, and stimulating the intestinal ulcers to heal. 9. To note the fact that while solutions of quinine are destructive to the amœba, injections of the same fail to exercise any marked curative effect. 10. His experience goes to show that mild injections of nitrate of silver, thirty grains to a quart, with occasional administration of salines and large doses of bismuth and salol constitutes the best treatment. Details of seven cases illustrative of the above points treated in the John Sealy Hospital, Galveston, Texas, from October, 1892, to June 1, 1893, show the comparative frequency of this form of dysentery in this locality; there were only two or three cases of catarrhal, and none of diphtheritic or secondary forms admitted during this period. Two of them originated upon the same steamship in Vera Cruz, the facts strongly pointing to infection through the drinking-water. One acquired the disease while travelling through Indian Territory and North Texas, one was from Arkansas, having lived for some time in the alluvial bottoms of the Mississippi and Red Rivers. These two also drank impure and stagnant water. The other three cases originated in Galveston, or its immediate vicinity, and no history of infected water could be obtained. The symptoms in these cases were very uniform; though they might begin acutely they would very soon become chronic, and are characterized by irregularity in the flux as to character and frequency of the stools, alternating between improvement and relapse; the difficult cure and chronicity depending upon the nature of the lesions, viz., ulceration of different portions of the large intestine and sometimes of the ileum, with a disposition to infiltration and undermining of the mucous membrane, affording a nidus for the development, growth, multiplication, and destructive work of the micro organisms. The nature of the disease is such as to produce very rapid anæmia and wasting It is necessary to combat these results by the plentiful use of nitrogenous food—meat, fowls, eggs, rich broths, milk, etc.; if restricted to a milk diet these patients will very rapidly fail.

The character of the lesions gives the key to the most successful treatment, viz., consisting of thorough irrigation of the intestine, first with simple warm water for cleansing purposes; second, with an antiseptic solution for destroying the organisms and stimulating the ulcers to heal. For the latter purpose he has tried solutions of quinia, creolin, and silver nitrate—the latter has given the best results—quinia, in his experience, failing to accomplish any permanent good. While not attempting to explain the mode of action, large doses of bismuth subnitrate and salol seem to have had a distinct effect in controlling the excessive frequency of the stools. Salines also at times are beneficial, their mode of action probably consisting simply of a cleansing effect, in sweeping out irritants of various kinds.

Dr. West believed amœbic dysentery the most common form in Texas. The amœba frequently invades the liver and is a common cause of abscess of that organ.

The paper was discussed by Dr. Carmona and Dr. Mendizabel, of Mexico, and Dr. Osler, of Baltimore.

The latter said that the amœbic dysentery might be extremely severe, so that the patient might die of hemorrhage from the bowels. He had recently seen such a case. Dr. Osler found quinine injections very useful in the cases which were not too chronic. Abscess of the liver is not always due to this form of dysentery, but may occur with the other forms. He had found the disease very hard to cure permanently.

The Bacteriology of Dengue Fever, by Dr. J. W. McLoughlin, of Austin, Texas, was the second paper. He said: The paper was a review of the original investigations which he made in 1885, during the last epidemic of this disease which visited the Southern States of North America. To this was added, for the first time, photo-micrographic illustrations of the micrococcus which he then obtained from the blood of persons having dengue fever.

A detailed report of his investigations of dengue was read at the meeting of the American Medical Association held in St. Louis, in 1886, and was afterward published in the Journal of the Association. It was not his purpose now to recapitulate at any length the results of work done at that time, nor to add new facts, as he had had no opportunity since then of testing results by additional investigations; he desired simply to submit for examination some photo-micrographic illustrations of jelly cultures of the dengue micrococcus, which were made for him by Dr. William Gray, of the Army Medical Museum at Washington, D. C.

An inspection of the photo-micrographs herein reproduced will reveal group arrangements of the micrococcus that are distinctive of this micro-organism, and which, so far as he can learn, are not found in other pathogenic bacteria. He regarded this as a matter of importance, and, to a large extent, he rested the claim that this microbe is intimately, if not causatively, associated with dengue fever, upon the characteristic groupings of this micrococcus. But aside from the probabilities thus furnished of this being the specific coccus of dengue, its unique group-arrangements render this micro organism a matter of considerable biologic interest; these are clearly shown in the three photo micrographs here shown. An inspection of a specimen revealed several filaments which,

on closer attention, it will be seen, are composed of segments which contain a number of cocci, grouped around a central coccus of larger size, perhaps an arthrospore; segments and cocci are all embedded in a matrix-like substance, which is probably micro-protein, to form the filaments which, it is seen, are all of the same pattern.

The next photograph (Fig. 2) represents a different grouping of this coccus which occurs in the development cycle of its life history. Here the filaments are seen undergoing dissolution; while the segments, which have become separated, are spread out in circular-shaped masses and which form an irregular mosaic in the picture. A further separation of the cocci into irregular groupings, with a total disappearance of the filaments, is shown in the next picture (Fig. 3). Here the grouping resembles staphylococci, and, to a less extent, streptococci, in their arrangements.

Now, these three photo-micrographs, representing distinct and different group-forms of the same coccus—which, however, bear a relationship to each other—were obtained from the same mounted preparation of jelly culture; and as the same group-forms were constantly found in other mounts, the conclusion that they represent development-stages in the biological history of this micro-organism seems well taken. And, furthermore, as this grouping has never been observed in other pathogenic bacteria, and is characteristic and distinctive of the cultures of the micro-organism which he obtained from the blood of dengue-fever subjects, he feels justified in claiming that it is intimately, if not causatively, associated with this disease.

The cultures of dengue micrococci from which these photo-micrographs were obtained, were made by introducing into test-tubes of sterilized Miquel's lichen jelly the small quantity of blood from a dengue-fever subject that would adhere to the point of a sterilized platinum wire. Of course, all necessary precautions against the entrance of other microbes than those conveyed from the subject with the blood, were scrupulously taken. That his efforts in this direction were successful is testified by expert bacteriologists, who have pronounced the cultures thus obtained to be pure.

The tubes of sterilized jelly, after their inoculation with dengue blood, were kept at 100° F., in a culture oven, for periods of time varying from three to twenty days, and reinoculations, from one tube containing a culture to another containing only sterilized jelly, were made from time to time during a period of six months. He was fortunate in keeping the cultures pure during this entire time, and all the tubes which he examined, with a few exceptions only, contained pure cultures of the dengue micrococcus. These culture micro-organisms were readily stained by all the aniline dyes to which they were submitted, with the exception of the brown colors—vesuvin and Bismarck brown—which failed to have any selective action whatever; but he obtained the best results from methyl-violet, which was found to be of especial value in bringing out the cocci and segments of the filaments. When unstained these bodies—filaments—appear as continuous tubular bacilli with highly refractive granules distributed within their central cavities, and do not show either cocci or segments. But when the cocci which have been separated from the filamentous groupings are examined, they can be distinctly seen, without any staining whatever, as reddish-brown colored bodies in active commotion; the color is most distinct when the cocci are massed together in considerable numbers, less distinct when they are examined separately.

Blood of dengue fever was microscopically examined by various methods. For example: it was examined in the fluid state immediately after its removal from the veins. It was dried on cover-glasses, then flamed and submitted to various staining dyes and chemical agents. And, finally, blood was aspirated from the veins of a dengue patient into a series of glass bulbs blown upon a glass tube (Liebig's potash bulbs). The end of the tube nearest the arm of the donor was then closed by a blow-pipe (the other end having been previously closed by packing with sterilized cotton), and the apparatus was put into a culture oven at 100° F. The blood was thus made a culture medium for the growth of any bacteria it contained. At various periods of time a bulb was removed by the blow-pipe, and its contained blood was examined by the methods referred to.

This method of culture proved quite satisfactory, as it furnished a large number of cocci in a small quantity of blood; and he thinks this a valuable means to examine blood in acute infectious diseases for bacteria, especially when these are found only in inconsiderable numbers in fresh-drawn blood. In the instance under consideration the blood in the bulbs, removed at various times, was found swarming with micrococci. In a few instances he saw in this blood what appeared as filaments, but on this point he cannot be positive, owing to his inability to find a selective stain for blood preparations; that is, a stain which the cocci would hold after its removal, by washing or decolorizing agents, from the blood-cells. He is sure, however, that no filaments were ever found in fresh-drawn blood from dengue patients—about forty in number—whose blood he examined.

Blood taken from the culture bulbs, if examined in a fluid condition, and without staining or other reagent, contained what appeared to be innumerable pigment granules floating in the plasma; the cell elements of the blood were also seen, normal in size, shape, and numbers. But when cover-glass preparations of this blood were stained by Löffler's solution of methyl blue, or by first submitting them to sulphuric acid for a few seconds, then washing and floating them on Lugol's solution of iodine, that which first appeared as pigment granules is now seen to be cocci, variously grouped, and located both within the cells and plasma. He does not recollect to have seen cocci within the cells of fresh-drawn dengue blood, but this was constantly found in the blood from the bulbs. The difficulty which he encountered in fixing the stain in the cocci with a degree of permanency that would enable him to resist the washes required to decolorize the blood-cell, was a source of much annoyance, and interfered with his efforts to display the presence of the cocci in the blood, and their relation to its cell elements. In fact he succeeded with but a single aniline stain, and with this imperfectly, in accomplishing this result.

By floating cover-glass preparations of dengue blood on Löffler's methyl blue solution for twenty-four hours, at 100° F., the cocci were found to retain the blue color after this had been removed from the blood cells. This method of staining blood preparations was found out late in his work, when fresh dengue blood was no longer to be obtained, and was used only with the blood taken from the culture bulbs. In these preparations the cocci were found both within and without the blood cells, and, what is somewhat singular, they were not of uniform size; some were as large again as others, and often a central body of deeper color was seen surrounded by a halo of paler color, like a central coccus and surrounding capsule.

In place of this, he invites attention to a picture obtained by first applying sulphuric acid for a second or two to cover-glass preparations of blood from the culture bulbs, and then staining them with Lugol's solution of iodine. The appearances obtained by this method were well shown by a photograph prepared for him by Dr. R. Menger, of San Antonio, Texas.

Some remarkable results were obtained by applying glacial acetic acid to cover-glass preparations of freshly-drawn dengue blood. Several cover-glass preparations of fresh blood, taken from the last patient he saw having dengue fever, in 1885, were flamed, and then submitted to the action of glacial acetic acid. When these were examined with a dry one-sixth, or better, with a one-twelfth, oil emulsion, numerous ovoid cocci, of a yellow-brown color, were seen in the blood plasma. The blood-cells—which could be distinctly seen—were normal in appearance and numbers, and did not contain any of these ovoid bodies. Unfortunately, the number of pre-

parations of blood thus treated, which he examined, were too few, and all coming from the same individual, do not furnish sufficient evidence on which to base a positive opinion. But if these results are confirmed by future investigations they will be valuable for diagnostic purposes. The difference in shape and size between the cocci seen in these preparations and those obtained from jelly and blood cultures is due, he thinks, to the action of the acid on the capsule of the coccus.

In conclusion, he wishes to say that these investigations were made in 1885, before very little, if any, original work in bacteriology had been done in this country. All of the apparatus used by him was extemporized, and the work was done by a general practitioner, without technical training other than can be acquired by any educated physician who will give the subject careful investigation and study. He requests, therefore, that these facts be considered by those who would too closely criticise the imperfections of this work. He admits there are many, especially when viewed from the present advanced stand-point of bacteriology.

The paper was discussed by Drs. Cronyan, Gardiner, Medizabel, and West.

Culture of Anærobic Bacteria.—Dr. F. G. Novy, of Ann Arbor, Mich., then read the paper. The first part of this paper contained a brief résumé of the principles and methods employed in the culture of anærobic bacteria. The methods were described under five heads: 1. Exclusion of oxygen. 2. Exhaustion of air. 3. Absorption of oxygen. 4. Displacement of oxygen. 5. Cultures in the presence of air.

The second part was experimental, and included detailed descriptions of a convenient and very simple apparatus for the culture of anærobic bacteria either in vacuum or in an atmosphere of some indifferent gas. The apparatus, which was described, moreover, did away with the use of such special and expensive culture-tubes as those of Liborius, permits the making of large serial cultures, the use of various culture media, whether solid or liquid, and also enables streak cultures on agar and Esmarch roll-tube cultures to be made. The usual sealing in a flame was discarded and replaced by a more convenient procedure. The apparatus consisted of a jar so arranged that ordinary culture tubes being placed therein the air could be exhausted or replaced by other gases.

The culture media employed for the growth of anærobic bacteria are also discussed, and the value of peptone, glucose, and gelatine additions carefully pointed out. The addition of litmus was shown to possess some valuable properties. Pure cultures of anærobic bacteria can be readily obtained, even in the presence of air, with as much ease as ordinary ærobic cultures. The common anærobic bacteria can thus be cultivated without any special apparatus, and such cultures furthermore possess the advantage of retaining their vitality for a considerable length of time.

This was Dr. Novy's second paper:

A New Anærobic Bacillus of Malignant Œdema.—In several guinea-pigs which died after an injection of impure milk nuclein solution, a marked œdematous condition was observed, resembling, and even more pronounced, than that of malignant œdema. In the subcutaneous tissue, peritoneal exudate, heart blood, spleen, liver, etc., were found enormous numbers of a long, slender bacillus. This organism was found to be obligative anærobic in character, and pure cultures possessed marked infections and extremely toxic properties, producing death in from twelve to thirty-six or forty-eight hours, with the characteristic œdematous condition. White rats, white mice, rabbits, guinea-pigs, and pigeons, are all extremely sensitive.

The organs and tissues of animals that have died after inoculation with pure cultures contain very few germs, and often none can be found, showing that the normal body is not a very good soil for the growth of the germ. By injecting certain chemical substances and cultures of common non-pathogenic bacteria at the same time with the virulent germ, this natural resistance of the body is altered, and as a result the germ develops in enormous numbers throughout the body.

This new, highly pathogenic anærobic bacillus is motile, and the flagella can be readily demonstrated by Löffler's method. In some of the cover glass preparations made from animals colorless spirals can be observed. In cultures on certain media and under certain conditions are found similar spirals, which in reality are giant whips. These can be readily seen in hanging drops even with a dry objective. These abnormal flagella are exactly the same as those described by Löffler in connection with symptomatic anthrax, and their formation is probably due to involution changes.

The germ is readily stained by simple dyes and also by Gram's method. Spore formation has not been observed, but the germ itself is extremely resistant. It can be grown in vacuum, in hydrogen, carbonic acid, nitrogen, and even in illuminating gas.

There was no discussion of this paper.

Fourth Day, Friday, September 8th.

On motion by Dr. L. F. Bishop, of New York, seconded by Dr. M. Day, of Kansas, the following papers were read by title and ordered published in the Transactions: A paper on "Cold Steel as an Anti-rheumatic," by Dr. W. K. Vance, A.M., of Bristol, Tenn.; "Facts in Stethoscopic Percussion," by Dr. Henry Sewall, Ph.D., of Denver, Col.; "A Study of Some Cases of Chronic Diabetes," by Dr. N. S. Davis, Jr., of Chicago, Ill.; "A Case of Acromegaly in a Giantess," by Dr. Woods Hutchinson, of Des Moines, Ia.; "The Value of Rest as a Therapeutic Agent in Chronic Pulmonary Tuberculosis," by Dr. Karl von Ruck, B.S., of Asheville, N. C.; "Progressive Pernicious Anæmia," by Dr. Judson Daland, of Philadelphia, Pa.; "On the Occurrence of a Form of Chronic Bright's Disease, other than Typical Fibroid Kidney, without Albuminuria," by Dr. D. D. Stewart, of Philadelphia, Clinical Lecturer on Medicine, Jefferson Medical College; "Clinical Study of the Disease known as 'La Buba,'" by Drs. Luis Razotti y N. Guardia, Jr., of the University of Caracas; "Insanity in the Negro," by Dr. J. B. Da Lacerda, of Rio Janeiro; "The Cause of Yellow Fever," by Dr. J. B. Da Lacerda, of Rio Janeiro, Brazil; "A New Disease of the West Indies," by Dr. Cuthbert Bowen, of Barbadoes, West Indies; "Two Cases of Anæmia due to the Ankylostomo Duodenale," by Dr. J. B. Agnoli, of "Victor Manuel" Hospital, Lima, Peru; "The Nature of the Germicidal Constituent of Blood Serum," by Drs. Victor C. Vaughan and Charles T. McClintock; "Recent Experiences in Croupous Pneumonia, with Observations on Treatment by Subcutaneous Inspections of Saline Solutions," by Dr. R. F. Cunningham, of Birmingham, Ala.; "Cholera, its Diagnosis, Prognosis, and Treatment," by Dr. J. M. Hurley, of San Bernardino, Cal.; "Asiatic Cholera," by Major Dr. Santiago Hernandez, of the Spanish Army; "The Importance of Eliminating Pelvic Diseases in General Diagnosis," by Dr. Mary H. McLean, of St. Louis, Mo.; "The Need of Research in Preventive Medicine," by Dr. J. M. Postle, of Hinckly, Ill.; "Some American Ideas about Chronic Diarrhœa," by Dr. Ephraim Cutter, of New York City; "Tratamento medico del vomito negro," by Dr. Segundo Bellver Mateo, of Havana, Cuba; "Forced Respiration—Fell Method—A Plea for its General Adoption in Hospital and Naval Practice," by Dr. George E. Fell, of Buffalo, N. Y.

SECTION ON OBSTETRICS.

Third Day, Thursday, September 7th.

A Method of Performing Rapid Manual Dilatation of the Os Uteri, and its Advantages in the Treatment of Placenta Prævia.—Dr. Harris, of Paterson, claims that in most cases manual dilatation of the os uteri, from the introduction of index-finger to full hand, can, under

ether anæsthesia, be accomplished in about twenty minutes. This applies to any case of "cross birth" or "placenta prævia" which has reached seven months of utero gestation. In the seven successful cases of placenta treated in this manner by him (all the mothers recovering) the dilatation of the os from first finger to full hand was accomplished in an average time of nineteen and a fraction minutes. The shortest was sixteen minutes, the longest time twenty two minutes.

The average time for completion of labor (delivery of child and placenta) was twenty-five and one-eighth minutes, thus giving an average time for all cases, from introduction of index-finger to completion of delivery, of forty-one minutes. Five of the seven cases had not had a single labor-pain prior to the introduction of hand into the uterus and bringing down of one foot (the delivery of those five cases having been a purely elective operation).

Dr. Harris's method of effecting tonic strain on the os, strange as it may seem, is accomplished mainly by flexion of one or more of the fingers and extension of thumb, or the first finger, in a manner which exerts great force and does not fatigue the operator.

A full description of the manner of using the thumb and index finger, followed one by one by the other fingers, was given.

Dr. H. J. Garrigues, of New York, supposed the method described by Dr. Harris was new to most of those present, as it was to him, and he thought it would be very efficient in dilatation of the os, much more so than by the method of using the fingers by extension instead of by flexion. Manual dilatation and delivery was the only proper way of meeting placenta prævia, and was the method in New York.

Dr. R. A. Murray, of New York, gave some facts in the history of manual dilatation of the os and placenta prævia, and other conditions requiring rapid delivery, and spoke of the effect of this and aseptic measures in driving puerperal sepsis from the maternity institutions in New York. Rapid manual dilatation was employed only in placenta centralis, not in placenta lateralis. By means of it he had saved six children and all of the mothers in eight cases.

Drs. Upshur and Saunier made a few remarks.

Maternity Hospitals and Their Results.—Dr. Joseph Price, of Philadelphia, presented this paper. There was great hope in the fact that the impulse of the profession was away from and above old standards. We have learned the evil results of hurry; the interests of the mother and child are no longer to be sacrificed to the urgencies of private practice. It was not unsafe to predict that obstetrics will become a specialty, and in its ranks will be found the cleanest and most scientific men of the profession. The better statistics of maternities over those of private practice were due to the selection of the best men, those most advanced in the science of obstetrics, as medical managers of lying in institutions, their enforcement of rigid asepsis and exclusion of meddlesome midwifery. Too many of those going out from the schools to practise were ill-equipped for obstetrical work, and carried many risks to mothers and infants. Yet the lessons of both gynecology and obstetrics had come to remain with us. They taught that we have no right to tolerate either filth or blunder in our work. Old theories and beliefs had been gradually giving way before the assaults of our better facts, each age found fewer superstitions in medicine and surgery. The trustees of our schools and maternities held the highest trust, a trust which ruled over mother and offspring, a trust which ruled over every grade of life. But they did not always fulfil their trust with the best judgment. Teachers and managers should not be appointed on account of their pedigree, their family connections or wealth, but for their brains, knowledge of the subject, and energy in advancing the school. There should be no small amount of the mental and moral in the faculties of our great schools. The work, it should be remembered, could not be so well done but what it could be done better; with each death there would, and should, be a stronger demand for better obstetrical teaching and practice.

The Axis-traction Principle in Obstetrics.—Dr. Joseph Hoffman, of Philadelphia, read an abstract of his paper, and showed an axis-traction forceps for which was claimed certain advantages over others, especially that feature in others involved in the stiff traction rod. The traction in the instrument presented was exerted directly upon the middle of the fenestra, to which tapes were attached, one to each, these in turn attached to a rod with nearly a right-angle bend. The line of traction consequently was the hypotenuse. This arrangement resulted in certain important advantages: 1, Traction in the line of the axis, at first downward and backward, afterward downward and forward; 2, forceps permitted to rotate freely with the head; 3, no compression effect, only traction upon the head; 4, the forceps could be left on until the head was expelled through the vulva, and to advantage, for the traction as it reached the perineum was up over the symphysis, taking pressure from the distended perineum, and lessening the liability to rupture.

Forceps Delivery.—Dr. James Campbell, of Hartford, in this paper condemned the abuse of the forceps, while approving their use when really indicated.

Three marked examples of their abuse or neglect to use them when indicated were cited, and the author believed similar cases occurred frequently in every town and city. In one instance the doctor resorted to forceps in a normal case in order that he might keep another appointment, and the result was tears of the cervix and perineum. In another instance the forceps delivery lasted more than four hours, when intelligent use of the instrument would have extracted safely in little time. One doctor allowed the woman to remain in labor over two days, when forceps would have spared most of the suffering and saved life of mother and child.

The Use and Abuse of the Forceps.—Dr. W. Frank Holhaulen, of Philadelphia, read the paper, the title of which he said might have been a few practical questions concerning the forceps. Among those questions were: Are we justified in using the forceps for the sole purpose of economizing time? No. Are we justified in using them in normal labor in hyperæsthetic women? No. He would favor chloroform if the pain were too great. Should we apply them before the head is engaged in the superior strait? No, not so long as the head is movable, but rather perform version. Are we justified in using forceps in slow labors which otherwise are normal? He thought not, although the temptation might be great. Should we ever apply the forceps in the transverse diameter of the mother's pelvis? He thought not, except where the head was in the antero-posterior diameter. Are we justified in making traction, regardless of the natural curve through which the fœtus has to pass? He thought not. Is compression of the forceps justified beyond the degree necessary to retain the hold upon the head? He thought not. How long shall the head be allowed to remain against the perineum? This question was difficult to answer, but if the parts were rigid but moist, and the head made a little progress, one might wait an hour or two. Are oscillatory movements of the forceps during traction justifiable? Though condemed by some, he thought such oscillatory movements, when made with care, facilitated delivery. The several papers were discussed by Drs. Garrigues, Cortwright, and Joseph Price, who endorsed the remarks of Dr. Hoffman with regard to the traction of forceps presented; R. Wilson, F. Zárraga, of Mexico, who feared the forceps shown by Dr. Hoffman would slip from the child's head unless compression were made through the handles; R. L. Sibbett, Chestnut, Nelson, of Virginia, and Ayres, of New York.

Afternoon Session.

To Regulate Midwifery.—Dr. Root, chairman of the committee appointed Wednesday, read the resolutions which the committee had drawn up.

"*Resolved*, that the Section on Obstetrics of the Pan-American Medical Congress protests against the irregular practice of obstetrics by midwives, and, in view of the danger to the community incident thereto, recommends that the Boards of Health or licensing boards of the various states refuse to grant licenses to applicants to practise midwifery who have not received technical instruction and preliminary training after at least one year in competent schools and passed an examination in obstetrics equal to that required of the applicant for the degree of medicine; that copies of these resolutions be sent to licensing boards or Boards of Health of the several states." The resolutions were adopted without discussion.

The Influence of Surgery on Modern Obstetrics.—Dr. Thomas Opie, of Baltimore, in this paper referred to some of the more important epochs in obstetric science, the discovery and perfection of the forceps, etc., and made a plea for the more general application of the knowledge gained among obstetricians. One of the gravest duties of the attendant was to bring the head safely through the outlet, and he expressed his faith in the value of supporting the perineum. He warmly condemned the spreading custom of criminal abortion and pointed to possible complications requiring ultimate surgical interference when the mother refused to nurse her own child.

Symphyseotomy.—Dr. Henry J. Garrigues, of New York, read the paper. Symphyseotomy was invented and performed by the Frenchman Jean René Sigault in 1777. After having fallen into discredit everywhere else, it was kept alive in Italy, and was dying out there when Morisani revived it in 1866, but without finding imitators elsewhere, until in 1891 his pupil, Spinelli, demonstrated it to Pinard. Thus brought back to Paris, it has spread over the world with such rapidity that it has become impossible to keep accurate account of the statistics.

When the symphysis and subjective ligaments are cut, the limbs bent, and the iliac bones pulled apart, a separation of 7 cm. (two and three quarter inches) between the ends of the pubic bones is easily obtained without injury to the ilia sacral joints. The head enters into this gap, and all diameters of the pelvis are considerably increased. The distance between the centre of the promontory and the end of the pubic bones, at the safe distance of 7 cm. (two and three-quarter inches), gains 14 mm. (over one-half inch), the other diameters from 17–35 mm. (three quarters to one and one half inches).

Symphyseotomy is indicated in a flat pelvis with a true conjugate ranging between 67 and 88 mm. (two and five-eighths to three and one-half inches), but it is difficult below 7 cm. (two and three quarter inches). In a generally contracted pelvis the upper limit may be extended to 10 cm. (four inches), and we should cautiously approach the lower limit.

Other indications, for which it has been performed, are pelvic tumor, mento-posterior face presentations, if the chin cannot be rotated forward, occipito-posterior vertex presentation with impacted head; and it has been proposed in cases of absolute contraction of the pelvis (*i.e.*, below 5 cm.—two inches) with dead child, in order to facilitate craniotomy and embryotomy.

The sacro iliac articulations must be movable. There are two chief methods, the subcutaneous (Morisani's) and the open (Pinard's). The child may be left to be expelled by uterine contractions, or removed with forceps, or turned and extracted. Considerable lesions of the soft parts have occurred even in the hands of first-class operators. In many cases the hemorrhage has been profuse and sometimes difficult to check. Most children are born more or less asphyctic, and in some there has been fracture of the skull.

Symphyseotomy has come to stay and deserves a large place in the practice of skilful operators, but should not be attempted by the average accoucheur. In lying-in hospitals and private practice of specialists it should take the place of craniotomy on the living child and induction of premature labor, in which the infantile mortality is over forty-three per cent. Cæsarean section should be limited to cases that lie beyond the domain of symphyseotomy. Symphyseotomy has several times been successfully performed twice on the same woman.

Recent Surgical Advances and their Relation to Conservative Obstetrics.—Dr. W. Reynolds Wilson, of Philadelphia, read this paper. In view of the fact that the science of obstetrics is the most stable of medical sciences in which fixed mechanical laws largely determine both the event and the conduct of parturition, the influence of modern surgery in modifying obstetrical practice is unexpected. This influence is observed in the present treatment of abortion, ectopic gestation, dystocia, in contracted and deformed pelves, and septicæmia.

The operations which have become recognized obstetrical procedures in these conditions are: in abortion, curetting in order to remove every trace of decidual tissue, irrespective of symptoms of retention; in ectopic gestation, the removal of the gestation sac as soon as the diagnosis has been established, irrespective of the viability of the fœtus; in impeded labor, Cæsarean section and symphyseotomy; in septic infection, curetting and drainage by means of gauze; cœliotomy for peritonitis, and supravaginal hysterectomy for lymphatic infection of the mucosa.

Surgery deserves the lasting praise of the profession for the scientific treatment of tubal pregnancy, no surgical procedure being too radical for this condition, but of all these procedures the active treatment in abortion and in septicæmia and the substitution of symphyseotomy for the forms of treatment formerly recognized in dystocia from contracted pelvis, are to be questioned.

The conservative treatment with exact indications is illustrated in the five hundred cases from the records of the Philadelphia Lying in Charity, and deductions are drawn from these cases showing instances where surgical treatment in cases of abortion, septicæmia, and dystocia are replaced by expectant treatment, with results favorable to the latter method.

Dr. Noble, of Philadelphia, in discussing Dr. Garrigue's paper, gave preference to the subcutaneous section of the symphysis. In the case in which he performed it he deliberately let the time pass when premature delivery might have been practised, preferring symphyseotomy especially in the interests of the child.

Dr. Gutierrer approved Dr. Garrigue's paper.

SECTION ON GYNECOLOGY AND ABDOMINAL SURGERY.

First Day, Tuesday, September 5th.

Dr. L. S McMurtry, of Louisville, Ky., the presiding officer, made welcome all delegates of the Pan-American states, and advised that the interesting list of papers be entered upon at once.

The Intra-uterine Tampon was the title of a paper by Dr. Andrew F. Currier, of New York. He said that the vast experience in gynecology which has accumulated, particularly during the past fifteen years, has educated us to accept measures which would have been regarded as inexcusably rash in pre-antiseptic days. The freedom with which the curette is now used within the uterus is an illustration in point. The usefulness of instruments for the dilatation of the uterus has been generally appreciated only during the era in question, and the same is true concerning the principle of drainage in its application to the same organ. Dilatation, curettage, and drainage are the three principal foundation-stones upon which intra-uterine treatment may be said to rest. From the propriety of dilating the uterus to that of packing it with a tampon is a logical step. The vaginal tampon is an indirect and often unsatisfactory means of relieving uterine trouble. The intra-uterine tampon goes directly to the source of the trouble and has opened a new field in intra-uterine therapeutics. Sterilized gauze is the

material which offers the greatest number of advantages for such a tampon.

In the impregnated and puerperal uterus it may be used, 1, during the period of gestation; 2, during parturition; 3, post-partum, whether the labor occur at term or prior to it. In the unimpregnated uterus its use is for, 1, exploratory and operative purposes in connection with disease of the uterus and its appendages; 2, hemorrhage; 3, endometritis; 4, stenosis; 5, accumulations within the tubes.

Dr. Maury, of Memphis, led the discussion that followed, asserting that we are indebted more to the use of the uterine tampon in the treatment of inflammatory conditions of the uterus, especially septic endometritis following labor, than to all other procedures.

Dr. Massey, of Philadelphia, would term the introduction of gauze in certain cases of catarrhal endometritis, and in stenosis, a plugging rather than a draining. Its apparent usefulness must be explained upon the ground of its being a counter-irritant; and the cause of the unfavorable results that had led its exponents to advise caution was not far to seek. For the hemorrhage and endometritis of a myomatous uterus he preferred galvanism by the intra-uterine electrode.

Dr. Joseph Tabor Johnson, of Washington, commended the paper, and like the author had been surprised at the amount necessary to fill the relaxed post-partum uterus. When the gauze at hand was limited, use might be made of it as an envelope into which strictly clean napkins or handkerchiefs might be thrust. In certain favorable cases it will replace cœliotomy. In the flooding of abortion, tamponing the cervical canal is rational treatment.

Dr. Cushing, of Boston, considered dilatation, curettage, and irrigation the essential factors in treatment of stenosis, and valued neither the gauze of Polk nor the stem of Wylie. In a series of curettements he had packed in every other case, and the result was no better where it was employed.

Dr. Van der Veer, of Albany, considered plugging an unfortunate term, and emphasized the capillary attraction properties of the gauze.

Dr. Carsons, of Detroit, thought there was danger of the intra uterine tampon becoming a fad. Undiagnosed distended tubes would be ruptured in the performance of the operation by the general practitioner. If any drainage were needed he preferred the glass, rubber, or silver stem.

Dr. Currier, in closing, would not recommend the tampon as a cure-all, but predicted a wide field of employment.

Treatment of Extra-uterine Pregnancy after the Viability of the Child, with a Report of Two Cases, was the title of a paper next read by Dr. Joseph Tabor Johnson, of Washington. Operation should be immediate upon diagnosis. The sac should be removed with the fœtus, if possible. In Lusk's case the placenta was removed, and the packing of the site with gauze controlled the hemorrhage.

Martin had ligated the vessels under the placenta and at the side of the uterus. Eastman removed the placenta in a similar way.

The first case was septic at the time of operation and the sac could not be removed. An early diagnosis would have saved the patient.

In the second case rupture had taken place into the broad ligament. Gestation had continued until the twelfth month. Diagnosis was exact, the placenta was not extensively adherent, and was removed with the ligature of a single vessel. Recovery good.

Dr. Price, of Philadelphia, in opening the discussion, stated that Dr. William Baynam, a Virginian, operated successfully for ectopic pregnancy in 1790, and again nine years later, but it remained for Mr. Tait to establish the procedure. Extensively engrafted placenta cannot be removed. Operation is demanded as soon as ectopic pregnancy is discovered. Electricity has no place in this discussion.

Dr. Massey, of Boston, cited two cases in which electricity had been employed. In the first, absorption followed death of the fœtus. In the second, a subsequent operation showed that absorption had begun, and that recovery would have followed without surgical intervention. He would employ the powerful electric current alone in the first three or four months of gestation, and later it should effect death of fœtus before an operation was attempted.

Dr. Stone, of Washington, related a case that shed a cast of the uterus at the fifth month. Here one could merely stitch the sac to peritoneum, evacuate the fœtus and bloody fluid, and leave the placenta *in situ*. Recovery followed.

Dr. Carsons, of Detroit, believed placenta could not always be removed. His knowledge of cases treated by electricity led him to condemn the treatment.

Dr. Price, in answer to a question of Dr. Massey, replied that he had had eighty-six cases of ectopic pregnancy with but three deaths.

Dr. Johnson briefly reviewed the discussion.

Dr. Burneys, of St. Louis, from an experience that embraced over one thousand laparotomies, declared in favor of attacking pus-tubes through the vagina, and attributed condemnation of the Péan-Segond operation to a misconception of its technique. So much of the lower segment of the uterus should be removed as permitted free removal of the abscess walls.

Dr. Carston, of Detroit, had given up treatment of diseased appendages through the vagina. It is impossible thus to obtain a free field of action, and some tubal or ovarian tissue is thus inevitably left to be a source of mischief. With the Trendelenburg position and approved methods of operating, one is enabled to remove the worst forms of pyo-salpingitis by cœliotomy.

Dr. Johnson said that while the paper had dwelt most exhaustively upon the pathology, it had also touched upon the treatment of pelvic abscess. He, too, thought poorly of the Segond method, as he had never seen a perfect cure of salpingitis attacked through the vagina. Draining need often be continued, and perfect results do not occur.

Dr. Noble was very glad to hear from Dr. Maury that abscess in the broad ligament is possible. He had himself reported six cases of cellular abscess, each following confinement, in none of which were the tubes affected, as established by cœliotomy. The pus was in each case evacuated by incision along Poupart's ligament. The cases were not well received, as in Philadelphia abscess in the broad ligament is a heresy. In some cases where he had persisted in removing the sac, a more fortunate result might have followed had he been content merely to drain.

Dr. Maury, in concluding, said it was possible to take out all abscess walls, but often the patient's life was best subserved by the slighter operation.

SECTION IN LARYNGOLOGY AND RHINOLOGY.

Second Day, Wednesday, September 6th — Afternoon Session.

A Case of Angioma of the Nasal Septum.—The paper was read by Dr. F. C. Cobb, of Boston. The patient, a girl, fifteen years of age, was examined at the Massachusetts Hospital in October, 1892. She complained of obstruction of, and bleeding from, the right nostril, with a duration of six months. There had been no sneezing, and only occasionally a yellow, thick discharge from that nostril. Her general condition was anæmic; she was subject to headache, and exhausted by slight exertion. Examination showed a small growth attached by a thin pedicle inserted into the septum of the right nostril, above the end of the lower turbinated bone, near the junction of the skin and mucous membrane. The growth was soft, its base dotted with a few small blood-clots. It moved backward and forward with respiration, but did

not pulsate. The right nostril was slightly atrophic; otherwise the upper air-passages were normal. The growth was removed, with very slight hemorrhage, with the aid of the Hooper snare and écraseur. The base was not cauterized, and the site was completely healed in a few days. In June, 1893, she reported that there had been no recurrence.

The diagnosis, made by the microscopist, was "cavernous angioma;" nineteen such cases have been reported, but in seven no microscopical examination was made. The diagnosis is therefore open to question; five contained myxomatous tissue, and were not therefore pure angiomata.

With regard to symptoms, the only two of importance are hemorrhage from, and occlusion of, one nostril. Out of seven thousand four hundred and twenty-nine cases at the Massachusetts General Hospital no similar case has been reported. Pure angioma may degenerate into malignancy. Careful microscopical examination alone can insure positive accuracy of diagnosis. In regard to treatment, all authorities agree upon the cold snare, used slowly, as the safest method of removal. In this particular case the slight hemorrhage was due to the thinness of the pedicle.

Dr. John W. Mackenzie, of Baltimore, had seen one case during the past year. The growth had been removed with the cold snare by one of his assistants. Removal was somewhat rapid, and there was considerable hemorrhage. He was surprised that anatomists still continued to neglect to properly describe the nasal mucous membrane. It contained a large net-work of cavernous sinuses. These have been mistaken for true angioma, while in reality nothing but a transitional stage between simple inflammatory and true hypertrophic rhinitis.

There was also another condition, viz., a pendulous state of the turbinated bodies, which might even protrude from the nostril and be mistaken for true angioma.

Report of a Case of Myxo-sarcoma of the Nasal Cavity.—Paper by C. W. Richardson, M.D., Washington, D. C. The interesting features in the case were numerous. The development of the growth, as noticed by the parents, was from early infancy. The age of the child at the time of operative interference was only four years and nine months. The enormous size of growth, filling out, as it did, the nasal and pharyngeal cavities. The complete absence of hemorrhage previous to, and the small amount at, the first removal of the growth. The rapid reproduction of growth—it filling out the left nasal cavity within four days after a most searching and thorough removal. From a pathological point of view it presents an interesting feature in the presence of single fibres of striated muscular tissues here and there disseminated throughout the growth. The growth was first removed by snare, but on its rapid reproduction a more radical procedure was adopted. The second operation was that of Billroth's for resection of the superior maxilla. Recovery was complete. Recurrent followed in four months in the pharynx and lymphatic glands of the neck. Result, death.

Sarcoma of the Naso-pharynx.—This was the title of a paper read by Dr. James E. Logan, of Kansas City. His patient was a man aged forty-four and a school teacher. At forty he had typhoid fever. Shortly after recovery he noticed a fulness of the throat, with considerable salivation. A tumor was found projecting into the pharynx. It was removed by operation, being regarded as a fibroid. There was a temporary improvement in the patient's health, but he soon lost appetite, became emaciated, and his former symptoms soon returned, with pain referable principally to the left ear. A diagnosis was now made of sarcoma. The growth increased so rapidly that operation was again deemed necessary. No less than nine operations were undergone, owing to recurrences of the mass.

When first seen by the reader of the paper he had a tumor twice as large as a partridge egg, situated partly on the roof of the pharynx and extending down a quarter of an inch along the posterior pharyngeal wall. It appeared lobulated and with a large base. The patient's condition was much below par. Considerable pain was felt in the ear and the back of the head. Digital examination provoked profuse hemorrhage.

The soft palate was tied back, a ten per cent. cocaine solution applied, and the growth divided into three sections with the cautery. One section was removed with the cautery knife, with but little hemorrhage; persulphate of iron was applied to the base. In a week the remaining sections had greatly shrunk and were removed as above. Microscopical examination showed it to be a round-celled sarcoma. Twenty such cases have been reported, with but one previous permanent recovery. In operating on these cases the gentlest means possible should be employed and all irritation of surrounding structures avoided.

These two papers were discussed by Dr. Ingalls, of Chicago, who related cases of intra-nasal tumors occurring in his own practice.

Local and General Treatment of Hay Fever.—This was the title of a discussion opened by Dr. D. Bryson Delavan, of New York.

Dr. Price-Brown, of Toronto, had himself suffered from the malady. He discovered sensitive areas in his own nostrils, which he cauterized. Afterward he removed a portion of his own uvula, which seemed to be the starting-point of reflex disturbance. Alumnol solutions had relieved one attack. He gave his patients weak cocaine solutions, but always dispensed them himself, and followed it up with menthol in albolene, five to twenty grains to the ounce.

Dr. J. O. Roe, of Rochester, had found a local intra-nasal lesion in every case of hay fever. He doubted the existence of the so-called general "neurotic" cases. Free nasal passages by no means necessarily meant healthy mucous membrane. There is or has been at some time intra-nasal pressure, and its removal is necessary for successful treatment. Nasal trouble may set up lesions in other parts, which persist after the primal cause is taken away. He regards the cautery as good only in vascular turgescence. Only the point of a projecting turbinated, giving pressure, should be taken off, and never the entire bone.

Dr. S. S. Koser, of Williamsport, Pa., finds terebene internally of service. Also, as a sedative measure, inhalations of carbolic acid and camphor in chloroform. We should always palliate before we operate. He chips the bone, as he does not regard the cautery permanent enough in its effects.

Dr. James E. Logan had had an experience practically identical with that of Dr. Roe. He used the cautery before the paroxysm, and gives pills of nitrite of sodium with camphor internally, for six or eight weeks after the attack is over.

Dr. J. H. Bryan, of Washington, D. C., thought that there must be two different conditions comprised under the term hay fever. Otherwise we would not find such diametrically opposed views as to its underlying pathology. He believed that it was impossible to permanently relieve the so-called "neurotic" cases.

Dr. E. Fletcher Ingalls, of Chicago, uses the cautery two or three weeks before the attack, so as to have healing complete before its onset. He employs it superficially, like a blister, so as to avoid the formation of cicatricial tissue. Internally he gives phosphate of brucia, camphor, hyoscyamus, quinine, etc., beginning one week before the attack.

Dr. John N. Mackenzie was glad that no one had spoken of the "pollen" theory as to the cause of the malady. It had been, in his opinion, a bar to the proper conception of the disease. He stated that he sees cases where there is no lesion in the respiratory tract in the intervals between the attacks. Pressure irritation he believes more liable to produce atrophy than hypertrophy. The various forms of rhinitis, hyperæsthetic, vaso-motor, etc., should all be classified under one heading. He employs nerve tonics, such as quinine, phosphide of zinc,

and nux, before meals, with Fowler's or Donovan's solution of arsenic after meals. Such a treatment will often clear up mild cases. If disease occurs in any part of the respiratory tract, it should of course be removed. The cautery should be applied to any sensitive areas.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

STUDENTS' NUMBERS—THE WANING VACATION—CHANGES IN HOSPITALS AND SCHOOLS—THE NURSING QUESTION AT THE LONDON HOSPITAL—APPEAL OF THE NURSES TO THE PUBLIC—POSITION OF THE COMMITTEE—REFORM OF NURSING ARRANGEMENTS NEEDED IN MANY HOSPITALS—SMALL-POX AND THE SALVATION ARMY—CHOLERA—BACTERIOLOGICAL DIAGNOSIS—CHOLERA IN LONDON—BACTERIOLOGICAL CONFIRMATION—CHOLERA AT THE HUMBER PORTS—ASYLUMS AS SPHERES OF MEDICAL EDUCATION—COMMITTEE ON DEATH CERTIFICATION—REPORT OF LOCAL GOVERNMENT BOARD—CROUP AND DIPHTHERIA—KLEIN AND SIDNEY MARTIN—INFECTIVE ENDOCARDITIS—ANTHRAX—ANTAGONISMS OF MICROBES—DIFFERENCES OF SUSCEPTIBILITY—ACTION ON PUS—ANÆSTHETISTS—ROYAL COMMISSION ON OPIUM.

LONDON, September 2, 1893.

To-day the medical journals publish their "students'" numbers. This fact is a reminder of the rapid approach of the winter session and the termination of the long vacation. Some of my friends are already back from their holidays, but more remain a week or two longer away, while the favored few will not return until the end of the month just begun.

The contents of these "students'" numbers are a dreary repetition of official regulations of the teaching and examining bodies. There is very little effort to digest the information, and perhaps it would be hardly worth while; for the major part of the double number—the *farrago libelli*—consists of advertisements obtained by special canvass, under the promise of extra circulation among students and parents and guardians. I wonder if any parent ever waited for a students' number to decide on the career his son should commence the next month? Still advertisers walk into the net thus openly spread for them.

A great many changes in the *personnel* of our chief hospitals and schools will be noticed when the new session begins. The tale of death in the ranks is already known, but other changes of staff and shiftings of professorships will in some cases give an air of strangeness to those familiar with the old order. The list of changes is too long to give, even if restricted to the more important ones.

This is the "silly season" when the importance of "big gooseberries" is recognized in the provincial, and of grievances or scandals in the metropolitan papers. Hospital scandals are a delight to some editors, and the grievances of nurses to others. Our largest hospital—the London—has again and again been attacked, and just now the *Pall Mall Gazette* has opened its columns to the London Hospital nurses. Many will be tempted to think that such repeated outpourings of smoke must prove there is a smothered fire somewhere, and I can assure them that the deduction is just. It is, however, sad that so noble an institution as our greatest hospital can hardly escape injury by the barest statement of defects or of mismanagement. The hospital, though so big and so necessary to the locality in which it stands, is poor and always in debt. Just now a fresh effort to raise funds is to be made, and there comes this damper. Most of the complaints of nurses which have been published resolve themselves into charges of injustice. They would never have been heard of but for the pusillanimity or blindness of the committee, which seems to be bereft of all sense of judicial impartiality. I will instance one example from the *Pall Mall*. A sister applies for leave of absence after illness, and is called upon by the matron to resign. On her refusal the matron accuses her to the committee of breach of discipline and misconduct. Disproving the accusation, the committee nevertheless require her to resign, "as it would be a breach of discipline for her to remain after what had happened." So the injustice of the matron is not corrected by the committee, and her shackles are fixed the firmer on her subjects. Another nurse was called upon to resign on refusing to report certain insinuations against the sister above named. This nurse resigned, and in reply to her father's demand for explanations, the chairman actually wrote that she "had been accused of no fault, and if at any time she should require a testimonial from the London Hospital, she would receive a first-class reference; but that nothing further could be done in the matter, as the authority of the matron must be upheld." This is the root of the whole matter. The nursing is committed to the matron, who is an irresponsible autocrat. An appeal to the committee is useless when that committee refuses judicial functions by its foregone conclusion that the "authority of the matron must be upheld." It is no use trying to conceal the matter any longer—the public want to know why a number of charitable gentlemen should be allowed to establish a despotism untempered by responsibility? By what fascination does the matron hypnotize these gentlemen, and compel them, instead of investigating, to repeat "the authority of the matron must be upheld?" The committee has to pass many details, and has little time to examine them. The natural result is to trust them to heads of departments, but it is their obvious duty to review the decisions of their servants and to prevent oppression. In the present case the committee are responsible to the public, and for the sake of the great work carried out in the hospital they ought to abandon their habit of supercilious concealment of facts, and their affectation of irresponsibility for the decisions of themselves and their servants.

I have dwelt on this case because an appeal to public opinion is being made, and because it is a sample of what is going on in other hospitals. No one is fit to be trusted with absolute despotic power—least of all a woman over a number of her own sex. Faults, no doubt, there may be on both sides, but the great defect is in the system which makes one an irresponsible tyrant and consigns the others to submission or deception, the natural resort of slaves. Reform of the nursing department is needed in a number of our best institutions, and the reform should begin at the top.

I regret to have to report the death of another eminent physician, well known to me, and whose name—Dr. Graily Hewitt—must be familiar to your readers. He was for many years obstetric physician to University College Hospital, and professor of this branch in the college, and when he retired from these offices a few years ago, was elected consulting physician and emeritus professor. His work on "Diseases of Women" reached a fourth edition, and was highly esteemed by many of his pupils and others. He was a past president of the Obstetrical Society, and a member of numerous learned institutions. His compeers will recollect the great importance he attached to mechanical considerations in uterine therapeutics.

I mentioned in a former letter the danger of the spread of small-pox through the Salvation Army shelters, which are not registered as common lodging-houses, and accordingly not open to sanitary inspection. With all the good work done by these charitable shelters, it is a pity to see them become foci of contagion, and the managers must be blind not to avail themselves of the advice of the medical officers of health. One of the so-called "officers" of the Army, a "Captain" Coldough, has contracted the disease in his attendance on a sufferer that he took in and "looked after like a brother." This event

should rouse his superior "officers" to a sense of their duty and responsibility.

I have previously mentioned cases of suspected cholera. One of them was referred to Dr. Klein for bacteriological diagnosis, and he reports that it was of Asiatic type. Forthwith the port where it occurred is declared infected, and the announcement thus made that the disease has set a foot on our shore, while every effort is made to prevent it securing this feeble foothold. Perhaps if other countries had dealt as fairly this would not have happened. All our sanitary officers are on the *qui vive* and still hopeful. It is a curious coincidence that Dr. Klein should have had to make the bacteriological investigation. When Koch announced his discovery of the comma bacillus, Dr. Klein refused to acknowledge its importance, and undertook to drink a fluid containing the accused bacilli. How far does he now rely on their presence as a test, or by what other bacteriological signs does he pronounce a case to be Asiatic cholera?

London, September 9, 1893.

Last week I was able to inform you that cholera had effected an entrance at our Humber ports. To day I have to report that the disease has appeared in London. Last evening Dr. Thorne Thorne issued an official statement on the invasion. This shows that on September 7th there was another death at Grimsby, and thirteen new cases, that fifty persons were under treatment, including cases of diarrhœa. Cleethorpe, a suburb of Grimsby, has also had cases, and further deaths have occurred at Hull. The invasion of London cannot be well accounted for. A cleaner at the House of Commons who had no known connection with infection was suddenly struck down and the bacteriological examination offers no difference from Asiatic cholera. A case occurred at Islington, a northern locality of the metropolis, and was conveyed to St. Bartholomew's Hospital. Another case appeared in Marylebone (west central district). A lad of twelve died in some model dwellings near the Edgeware Road (western district), after seven or eight hours of choleraic diarrhœa, but the bacteriological examination is not yet complete. Early yesterday two vessels from Bremen arrived in the Thames with seventy-four and sixty-two passengers respectively. Their addresses were taken, or they were detained and will be watched until the danger has passed. Yesterday there were eleven cases in hospital at Grimsby, two of which were admitted the previous day; no death. At Hull no fresh case was admitted, and it is hoped the outbreak is at an end there. From other parts of the country scattered cases of suspected cholera are reported this morning and will be fully investigated by the local government board. We have nothing like panic in the country, and the sanitary authorities are awake. There is a certain amount of perturbation in some quarters, but perhaps less than on former occasions. There is a recognition of the gravity of the fact that cases of unquestionable cholera have appeared in different districts of the metropolis, but relying on the activity of the health officers there seems a general confidence that we shall escape a severe visitation.

The London County Council propose to open their large asylums for medical teaching. This will be a great gain to medical education as well as to the public. A knowledge of mental disease is of great importance to every practitioner, and the means of requiring such knowledge ought to be at the disposal of all students. Hitherto such opportunities have been very restricted, and the immense asylums of the London County Council afford so ample a field for instruction that I hope the scheme may be carried out.

I hear, too, that the Council contemplates engaging the services of a skilled pathologist, so that medical men cannot complain that the interests of medical science are altogether neglected by the metropolitan authority.

The report of the Select Committee on Death Certification has been laid on the table of the House of Commons. It is an elaborate document and will, perhaps, lead to early legislation. It recommends that a certificate of death signed by a registered practitioner, or when an inquest has been held by the coroner, should be a condition precedent of registration in every case. This is most important, as it is well known that many deaths have been registered without this guarantee. Moreover, all certificates in the prescribed form are to be sent direct to the registrar instead of being entrusted to the friends of the deceased. This will, in many cases, relieve the medical man of some anxiety, and probably tend to greater accuracy in the returns, as it is at times very unpleasant to state for the inspection of friends the full cause of death and so add to their distress. These certificates must be regarded as official documents, and not as details for the inspection of the curious, and are assuredly not properly handed about among friends and relatives. I do not observe that it is proposed to pay for them, and yet medical men should certainly be remunerated for the trouble of providing the state with such important statistics. No one would venture to propose that solicitors should be compelled to furnish certificates of anything gratuitously, but doctors seem to be expected to thrive on unpaid labor.

In the new report of the medical officers of the Local Government Board, to which I have previously referred, Dr. Klein and Dr. Sidney Martin sum up the pathology of diphtheria in a manner that has produced a decided opinion in many circles that we may regard the nature of the disease as now established. The true cause is announced to be the bacillus of Klebs and Loeffler. Dr. Klein says scarlatinal diphtheria is not the true disease—a conclusion which will not be disputed by many clinicians. He also holds that membranous croup when concurrent with faucial diphtheria is true diphtheria, but when not thus associated it may be or may not. What is this but a return to the old clinical distinction between croup and diphtheria, with a shifting of the argument from the bedside to the microscope? If a bacteriological distinction between the various cases can be established with such certainty, surely those clinicians who always maintained the non-identity of the diseases must be credited with as much insight as those who have so loudly asserted their identity.

Dr. Martin seems to have fairly traced the manner in which the bacillus acts. His research confirms and extends the work of Roux and Yersin, and of Brieger and Fraenkel. But he works on a different plan. They investigated the products of the bacillus; he the blood and tissues of those who died of diphtheria. Oertel and others have gone a long way to show that the poison of diphtheria circulating in the blood breaks up proteid in the tissues in a somewhat similar manner to the action of pepsin in indigestion. Dr. Sidney Martin shows that the albumoses and an organic acid formed by the bacillus are the deleterious agents, causing the fever, the prostration, and the paralysis. These conclusions had been reached by him in 1892 and were stated in his Gulstonian Lectures. They are now given in a revised and complete form illustrated by photographs and micro-photographs.

Dr. Martin also contributes an account of an investigation on defective endocarditis on the same lines. He concludes that in this disease and in anthrax the respective chemical products are specific, separable to some extent chemically, but more completely by physiological action. The spleen seems to be the chief locality of the fermentative changes. Here the blood as it passes through the spaces must be comparatively stagnant, and here, therefore, micro-organisms or ferments would be more active.

Dr. Klein has continued his research on the antagonism of different microbes. Experiments on vaccinia and erysipelas were begun, but dropped, as it was found calves were not susceptible of erysipelas. Some evidence is offered of an antagonism between the bacillus of grouse disease and that of malignant œdema. In guinea-pigs tubercle was delayed by injecting sterilized cultures of bacillus pyocyaneus.

Dr. Hamer experimented on the chemistry of susceptibility. He found that saliva restrained the growth of bacillus subtilis and did not lose this power by boiling. Pancreatic juice did not possess the same power. Dr. F. W. Andrewes found a great difference in the power of different organisms to develop in pus. Thus the bacillus diphtheriæ grew in pus, but the bacillus anthracis would not grow and soon died.

The anæsthetists have started a society all to themselves, to begin with a dinner. It must be doubtful to many whether the multiplication of small societies can be useful. Anæsthesia is not a tabooed subject at any general medical association. A society consisting only of anæsthetists to recognized hospitals threatens to withdraw the intensity in anæsthetics of many who are from time to time obliged to assist their neighbors by undertaking the administration of these agents.

The Royal Commission on the Indian Opium Trade has begun its sittings.

OUR BERLIN LETTER.

(From our Special Correspondent.)

NATURE'S SUBSTITUTION OF A VOCAL APPARATUS—THE SPEAKER WITHOUT A LARYNX—ENDOCARDITIS GONORRHOICA—GONOCOCCI IN A NEW RÔLE—REPORT ON NITRATE POISONINGS SIMULATING ASIATIC CHOLERA DEATHS—ABOUT DULCIN, THE NEW REMEDY FOR DIABETES.

BERLIN, August, 1893.

WITHIN the last few weeks a very rare case has attracted the attention of our profession. A man who, although having his whole larynx extirpated, is able to speak clearly, loud, and correctly. The case belongs to Dr. Hans Schmidt, of Stettin, who demonstrated the case in the medical society recently.

Pal——, aged forty-five, male, was operated upon seven years ago, for a probable carcinoma of the larynx. The whole larynx and its immediate surroundings were removed. The œsophagus was opened twice, leaving œsophageal fistulæ which interfered materially with the after-treatment. The patient was plied with bougies daily, in order to keep up the relationship between the mouth and œsophagus on the one hand, and the air-passages on the other hand. Although the greatest care was taken, the patient grew steadily worse, and after begging to be released, was sent to his home to die, as it was believed. Dr. Schmidt was greatly surprised to find the patient who could not utter a word when released, suddenly reappear in perfect health, and speaking fluently. The conditions were the following: The air-passage ended where tracheal fistula existed, in which there was a cannula. From this fistula, in an upward direction toward the œsophagus, there was no connection. A careful examination determined the following conditions: A powerful tongue, strong palatine arches, large hypertrophic tonsils, and a pharyngeal wall which was tilted forward. With a head-mirror looking downward was discovered a round opening which showed the entrance to the œsophagus, and which appeared to enlarge downward, like a crater. This opening changed its form. It assumed an oval shape, both sides seemed to lie together when the patient intonated, and from behind a small partition could be seen during intonation; besides, small air-bubbles could be noticed rising and bursting.

It was of the greatest interest to discover how this patient phonated. Laudois and Strübing examined him and expressed the opinion that the voice was formed in that space which was regarded as a vacuum. In the latter space the air was taken in and forced out. In this space, and in a second space lower down toward the œsophagus, sound was formed, which was utilized in the formation of vowels and consonants. The latter deductions seem different from Professor B. Fraenkel's examinations. Professor Fraenkel found that the patient was able to intonate as well when his tongue protruded as when it did not. The tongue can therefore be excluded from sound formation. Fraenkel further believes that sound formation is the result of a three-cornered slit (lip-shaped) in the œsophagus. Where does the patient obtain the air necessary for the production of sound? Fraenkel believes that the patient, prior to phonation, by a suction process draws air into the œsophagus, then the glottis of the œsophagus narrows itself, and now in an expiratory manner presses the air out in order that the compensatory vocal organ shall vibrate. This demonstration showed a cure—by nature—which we physicians can envy. Here is the "vis medicatrix naturæ" in her grandest form.

A very interesting subject is a case by Professor Leyden, "Malignant Endocarditis." Leyden was able in the polypoid vegetations of the aorta and mitral valve, as also in the endocardium, to demonstrate Neisser's gonococci. The patient had gonorrhœa, epididimitis, and gonorrhœal rheumatism, was put into a surgical ward, and transferred to Leyden's ward. Formerly we supposed a relationship existing between gonorrhœa and endocarditis, caused by streptococci. After the examinations by Leyden, however, the direct transmission of gonococci in the blood is proven. Leyden found in the above-named vegetations only gonococci (Neisser). The proof for the latter micro-organism being, 1st, its form, 2d, its position (peculiar) in the pus-cells, 3d, through its staining and loss of stain by Gram's method. In future endocarditis will receive more bacteriological attention than heretofore.

Cholera is still the subject of study. Recently Emmerich and Tinboi announced as a result of their investigations, that cholera is due to nitrite poisoning. Emmerich bases his results on: 1. The similarity of the symptoms, and the pathological anatomical changes in both cholera and nitric poisons in animals and human beings. 2. The spectroscopic results of methæmoglobin in the blood of guinea-pigs which died of cholera. Besides severe forms of collapse, vomiting, and diarrhœa were noticeable in poisoning with nitric acid. The animals also showed that after taking nitrites, collapse occurred with vomiting, diarrhœa, subnormal temperature, injection, and inflammation of the intestine. These experiments were followed by Dr. S. Klemperer, in Berlin, assistant to Leyden's clinic. He found that when cholera cultures were heated to 55° C., they lost their nitrite properties, and if then injected into animals (guinea-pigs) they still invariably died of cholera intoxication. Klemperer further found that it is an axiom that a chemical substance, which is the specific poison of a pathogenic bacterium, must render animals immune by injections of some.

It was found that, although different quantities of kalium nitrite were injected into animals, that, after inoculations with cholera cultures (agar washings), the animals invariably died. Klemperer could not verify the presence of methæmoglobin in the blood.

Saccharin has received a new competitor in dulcin. The latter is made from phenitiolin and urea. From a chemist's point it is a phenetolcarbomid, derived from benzol, as saccharine is. It is 200 to 250 times as sweet as cane sugar, according to investigations by Professor Ewald. It is harmless. The same was reported by Professor Kassel. Tablets containing 0.20 and 0.025 gm., equivalent to 5 gm. sugar, are made. It is applicable chiefly in diabetes. Whether dulcin contains antifermentative qualities like saccharin, remains to be seen.

Two Kinds of Prophylaxis.—There is a great deal of trouble in this world which arises from jumping at conclusions and taking things for granted. A case of this kind occurred in Detroit a few days ago when a little girl rushed in from school and said that the teacher said she must be baptized. The parents held their own views on the subject of baptism, and at once resented the interference of the teacher; but on investigation it was found that the child had made a mistake. The teacher had said "vaccinated" instead of baptized.

New Instruments.

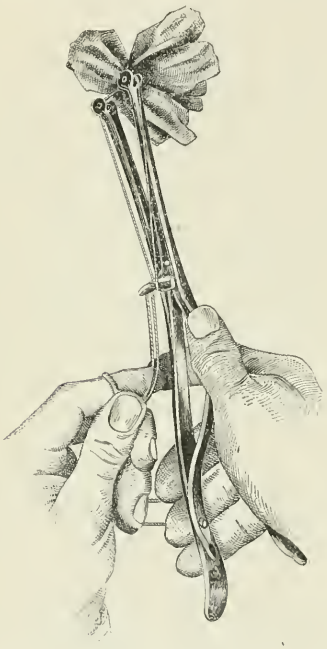
A NEW INSTRUMENT FOR TIGHTENING LIGATURES.

By EDWARD A. AYERS, M.D.,

NEW YORK,

PROFESSOR OF OBSTETRICS NEW YORK POLYCLINIC, OBSTETRICIAN MOTHERS' AND BABIES' HOSPITAL, THE CENTRAL HOSPITAL, BROOKLYN, ETC.

THE accompanying cut shows an instrument designed to act as a ligature tightener. Its special applicability is found in operations in deep cavities, such as abdominal or vaginal hysterectomies, where thick pedicles must be tied, and where the fingers lack the power to draw the ligatures tight enough. Slipping of ligatures following operations for the removal of fibroids, ovarian tumors, extra-uterine growths, diseased uteri, etc., followed by fatal hemorrhage, have been needlessly frequent. As a



medical student, in 1879, I saw a patient die in half an hour after a vaginal hysterectomy, from hemorrhage resulting from a poorly tied ligature. I made the post-mortem. Since then I have known of quite a number of such "accidents."

The Trendelenburg-Meyer position has been looked to to lessen the number of such accidents, and may safely be said to have done so. This instrument will add further accuracy in a life and death part of the work, and so bespeaks careful attention. I claim for my "ligature tightener," that it is clean, simple, convenient, and efficient; that it will tighten a ligature around a pedicle of any thickness, up to the limit of strength of the ligature; that it does away with traction of the pedicle; that its power can be readily adjusted to given needs; that it can be used as a substitute for the écraseur in certain temporary uses of constriction; and that it also has a distinct use in tightening a suture where, as in a cleft-palate operation, it is desirable to draw on the suture without pulling on the delicate tissue constituting the border of the wound.

A smaller instrument would, however, be desirable in such light work.

An excellent opportunity to test the instrument was afforded me in an operation for splenectomy done by Dr. J. A. Wyeth. Double strands of a large-sized silk ligature were tightened in a single tie around a very thick spleen pedicle, the latter being held by a Smith clamp. Sufficient traction with the index fingers pulling on the ligature, at a depth of several inches under the border of the ribs, was not possible. Applying my instrument, the tissues of the spleen were saved from laceration, and the ligature tied tight without any difficulty or loss of time.

The method of using the "ligature tightener," is to first pass the ligature around the pedicle, and make a single tie. Then holding the instrument in the right hand, and the two ends of the ligature in the left hand, pass the ends of the instrument under the strands held by the left hand, and between them to the knot, wrapping the ligature around the cleat at the joint of the instrument, to hold the ligature taut, then compressing the handles, the ligature at the pedicle is constricted to the degree required.

The instrument is eleven and a half inches in length.

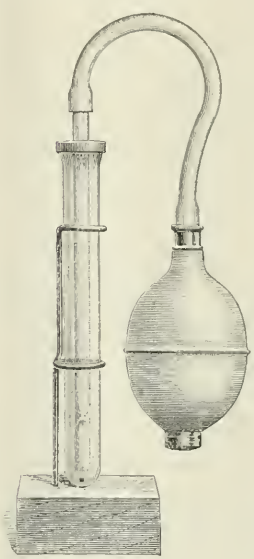
It is manufactured by Messrs. Lincoln & Lachesi, No. 149 East Twenty-third Street.

A NEW CARBONOMETER.

By W. MOLESWORTH, M.D.,

BROOKLYN, N. Y.

I WISH to invite the attention of the profession briefly to my new Carbonometer, believing it to be the only convenient, cheap, and portable device of easy application, for determining the excess of carbonic acid in the atmosphere, in school rooms, sick-rooms, hospitals, mines, tenement-houses, etc., where absolute accuracy is not required. While the thermometer shows the temperature of a room, the barometer the density of the air, and the hygrometer its moisture, we have had no simple device for testing its pollution as the result of combustion or respiration. When the actual health of the occupants of any given apartment is taken into consideration, there is no one thing of more importance than the quality of the air itself; and, recognizing the fact that there is no better test of its pollution than the per cent. of carbonic acid which it contains, by aid of the Carbonometer you can approximate the quantity near enough for ordinary use, and it should be found in every school-room or other apartment subject to vitiation of its air.



Each apparatus consists of a glass test-tube about five and a half inches long and nine-sixteenths of an inch in diameter, together with a smaller tube about six inches long, contracted about one inch from either end, with a valvular rubber bulb and tube to attach; also a rubber ring to fix its depth in the test-tube, a wooden and wire stand for supporting it, with a small bottle each of lime-water and vinegar, and a little brush for cleansing the test-tube.

Fill the test-tube for about one inch, up to the horizontal line, with a perfectly clear saturated solution of lime-water; take the smaller tube with bulb attached,

adjust the rubber ring so that it will hold the tube about three-eighths of an inch from the bottom of the test-tube; gently compress the rubber bulb till all the air is expelled and then allow it to fill again with moderate rapidity, and so continue as often as desired. If, after filling and discharging the bulb six or eight times, the opacity of the lime-water obscures the black spot on the base of the stand the air is absolutely unfit to inhale; and if, after filling the bulb fifteen to twenty times, the black spot is obscured, the observer looking downward from the top of the test-tube through the lime-water, the air is unfit for continuous respiration. In good air the spot ought not to be obscured in thirty or forty fillings of the bulb, and in pure air not at all. This instrument should be used in daylight, and the test-tube washed out with the brush or otherwise after each observation; if incrustations of carbonate of lime form on the tube, remove with a little vinegar, after which wash thoroughly with pure water and wipe dry.

To obtain an idea of its workings, fill and discharge the bulb eight or ten times with the exhalation from your own lungs, and observe its action on the lime-water.

A NEW PHARYNGEAL CURETTE.

By EMIL MAYER, M.D.,

NEW YORK,

SURGEON TO THE NEW YORK EYE AND EAR INFIRMARY.

From designs presented, Messrs. Tiemann & Co. have made for me a pharyngeal curette, for scraping the posterior pharyngeal wall, and the removal of such portions of adenoid tissue as lie low down in the pharyngeal vault.

The illustration shows the instrument about half size. The cutting surface is on the horizontal bar only. Owing to its shape, any portion of the pharynx can be reached, and the instrument, being all of one piece, can readily be rendered aseptic.

238 East 116th Street.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending September 16, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	28	13
Scarlet fever	36	3
Cerebro-spinal meningitis	2	3
Measles	48	4
Diphtheria	98	26
Small-pox	8	3
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

The Late Professor Charcot.—No one who has attended the clinics of this celebrated professor, or met him socially, or consulted him, but will read of his death with regret. Although an indefatigable worker, and always occupied, yet he never refused an audience to any who sought his counsel, and his uniformly courteous and kindly bearing endeared him to the poor as well as the rich. He was particularly fond of Americans, and singled them out for his favors. I have known of his intervening with the Paris Faculté in their behalf on more than one occasion. His clinic at La Salpêtrière Hospital was one of the most celebrated in Europe, and the hospital one of the largest, the buildings occupying about seventy-seven acres, and, including the *personnel*, can accommodate five thousand people. It became a hospital in 1657. Dr. Charcot entered the institution as *interne* in 1852, became physician in 1862, and was appointed Professor of Diseases of the Nervous System in 1881, the chair being created by the faculty especially for him. The afflux of patients from all countries furnish a vast amount of clinical material in every department of neuropathology, and the numerous and well-mounted laboratories at this hospital, and its original and complete method of study and teaching organized by Professor Charcot, and the corps of distinguished pupils and assistants that surrounded him, go to make up an institution of the utmost importance to the medical world. Dr. Charcot impressed his personality upon all who came in contact with him. He had a grave, kindly face, resembling in profile that of Dante; his manner was calm and deliberate, and his lectures were marked by original conception, clearness of diction, and forceful and picturesque illustrations. In his teaching he aimed to unite all the researches that could make it original, sound, and impressive to his auditors, and at the same time productive of substantial results. The labors of Professor Charcot have tended, perhaps, more than any other teacher in Europe, to the propagation of medical knowledge, and the improved treatment of nervous diseases. Even a brief review of his contributions to medical literature, and the changes he has wrought in professional practice, would require a small-sized volume. His published works are recognized text-books in this department of medicine. He possessed a powerful and versatile intellect, and was recognized as an authority in other departments of science than medicine. A few years since, he read a paper before the Academy of Sciences, of which he was a member, on the "Fixed Stars," and it was awarded the yearly prize as the ablest paper of the year. Like all men who have outstripped their fellows, he had his enemies and detractors; but he was ever ready to lend his influence and aid to the young men who came up about him, and among these many who fairly idolized him will his memory be lasting and stir grief sincere.—Dr. Sherwood Dunn, Paris.

The Doctor's Horse.—At the recent annual meeting of the West Somerset Branch of the British Medical Association, Mr. R. J. Collyns made what Americans call a "new departure" in selecting as the subject of his presidential address that useful and long suffering *servus servorum Dei*, the doctor's horse. He discussed the animal's housing, bedding, food, work, and repose, with a thoroughly practical knowledge of his needs and a tender concern for his well-being and comfort, which Ouida and other "zoöphilists" would do well to note. Mr. Collyns pleaded for the efficient ventilation and drainage of stables, and he pointed out that horses are much more likely to take harm from exposure after leaving a hot stable than a cool one. He considers peat-moss litter more economical than straw, but it has the disadvantage of softening the feet of some horses so much that they are more liable to be damaged by the roads. With regard to feeding, Mr. Collyns said the art of keeping a horse in condition is to maintain a just balance between food and work; and as horses, like their masters, differ in appetite and capacity for work, the owner must make it his business, as it is his interest, to become acquainted with their peculiarities of constitution. He strongly recommended maize, given in the proportion of one part to two or three of oats by weight; horses fed in this way are, he said, kept in harder condition and at less cost than when fed on grain consisting of oats alone. He further advised that some hay or chaff should be given with each feed of corn, as this makes the animal masticate the latter more thoroughly. He also insisted on the

advantage of portioning out the food by weight rather than by measure. Mr. Collyns had also much to say about shoeing: his remarks on this subject were interesting, and his criticisms showed clearly that in order to shoe a horse properly a man should have some elementary idea of the structure of the animal's hoof. Had smiths any tincture of anatomy they would not pare away the "bars," the two firm ridges which act as buttresses to prevent the "wall" of the hoof from being driven inward by the superincumbent weight, as many of them are doing now. Are there no courses of technical education for smiths? Goodsir, predecessor of the present distinguished incumbent of the chair of anatomy at Edinburgh, once said, "I love the horse; I have dissected him three times." We do not know whether Mr. Collyns has shown his love in the same way, but he has evidently made careful study of the animal, his structure, his ways, and his wants, which has borne fruit in his excellent presidential address.—*British Medical Journal.*

Statistics of 5,866 Cases of Vaccination.—Mr. Francis Cadell reports, in the *Edinburgh Medical Journal*, for August, 1893, the statistics of the cases occurring during a period extending from July, 1886, to the end of 1891, in the New Town Dispensary, Edinburgh. *Insusceptibility.*—No case has occurred in which an infant has been found insusceptible to vaccination by the arm-to-arm method. *Repetitions.*—61 cases required the vaccination to be repeated owing to want of success on the first occasion. Failure after vaccination with lymph preserved in tubes was found to be greatly more frequent than in vaccination with fresh lymph from the arm. After vaccination with preserved lymph, failure occurred on the first occasion 26 times out of 310 vaccinations, giving a percentage of 8.46. After the use of fresh lymph, failure on the first occasion only occurred 35 times out of a total of 5,556, which gives an average of 6.30 per 1,000. These facts show the importance of maintaining the efficiency of the large vaccination stations, where fresh lymph can be constantly used for vaccinating. *Erysipelas.*—Seven cases of this dangerous accident occurred, and in almost every case the dwelling-house of the family was found to be damp or otherwise unhealthy. *Suppuration of Lymphatic Glands.*—This complication of vaccination also occurred seven times out of 5,866 cases. *Syphilis.*—There has been no case of syphilitic infection. An additional protection against the propagation of syphilis by vaccination would be to make the age-limit the same for Scotland as in England, where infants must be vaccinated before they are three months old. An infant which showed marked syphilitic symptoms at three months old might appear healthy before reaching the sixth month. In this way the risk of using tainted lymph is greater here than across the Border. *Deaths.*—Two deaths resulted from the complications of vaccination—one from erysipelas, the other from blood poisoning following the suppuration of a lymphatic gland in the axilla. Both deaths took place about three weeks after the operation. *Revaccinations.*—Only 45 revaccinations were performed. The large proportion of these were on boys between the ages of twelve and fourteen, employed at the General Post-Office. Among the laboring classes few come to the dispensary to be revaccinated, and these only do so when compelled by the rules of their employers. It would be much to the advantage of the community were revaccination made compulsory.

Dying Declarations. — Physicians are frequently charged with dying declarations. The law governing their admissibility in evidence is well settled, says the Supreme Court of Alabama, in the case of Blackburn *vs.* State, just reported (13 Southern Reporter, 274). Such declarations are not admissible unless they appear to have been made under a sense of certain and impending death. It is not what the court which passes upon their admissibility may believe the condition of the deceased was, for, although it may appear to the court, or to anyone capable of thinking rationally, that there was no possible hope of recovery, yet the question aside from that is, What was the state of the declarant's mind when the declarations were made? Did he appreciate the fatal character of his injury, and were his declarations uttered under the sense and solemnities of impending dissolution? If so, then, "when the death of the deceased is the subject of the charge, and the circumstances the subject of the dying declarations," they may be admitted in evidence; otherwise not.—*Medical News.*

The Diagnosis of Typhoid Fever.—Dr. V. Filípovich, of Odessa, has remarked that, in all the cases of typhoid fever that have come under his notice during the last two extensive epidemics in Odessa, there have been a peculiar induration and yellowish or orange tint in the prominent portions of the plantar and palmar surfaces, instead of the reddish color to be observed in healthy subjects, or the bluish tinge which those parts assume in a cyanotic patient. This yellowish appearance is to be accounted for by the enfeebled action of the heart, the incomplete filling of the capillaries, and the dryness of the skin in typhoid fever. The sign is so constant and so well marked, that Dr. Filipovich thinks that it should be looked upon as affording important assistance in the diagnosis of doubtful cases. That it is in no sense peculiar to the two epidemics that occurred in Odessa is shown by the observations of Dr. Skibnevski, who states that he invariably observed it during an epidemic in the neighborhood of Moscow.—*Lancet.*

BOOKS RECEIVED.

Cholera. By Roberts Bartholow, M.D. 8vo, 132 pages. Lea Brothers & Co., Philadelphia, Pa.

An Introduction to Practical Bacteriology. By W. Miqula, M.D. Translated by M. Campbell, and edited by H. J. Campbell, M.D. 12mo, 247 pages. Macmillan & Co., New York. Price, $1.60.

Transactions of the Medical Society of the State of New York for the Year 1893. 8vo. 540 pages.

The Throat and Nose and their Diseases. By Lennox Browne Fourth Edition. 8vo, 734 pages, illustrated. Lea Brothers & Co., Philadelphia, Pa.

Transactions of the Medical Society of the State of Pennsylvania at its 43d Annual Session. Vol. XXIV. 1893. 8vo, 288 pages.

Therapeutics of Cholera. By P. C. Majumdár, M.D. 12mo, 102 pages. Boericke & Tafel, Philadelphia, Pa.

How to Judge a Horse. By Captain F. W. Bach. 8vo, 180 pages, illustrated. William R. Jenkins, New York.

The Pharmacopœia of the United States of America. Seventh Decennial Revision. 1890. 8vo, 603 pages.

Introduction to the Catalogue of the Collection of Calculi of the Bladder. By Sir Henry Thompson. 8vo, 39 pages. J. & A. Churchill, London, England.

Decipherment of Blurred Finger-prints. By Francis Galton. 8vo, 18 pages, illustrated. Macmillan & Co., New York.

A Manual of Medical Treatment or Clinical Therapeutics. By J. Burney Yeo, M.D. 2 vols., 12mo. Vol. I., 631 pages, illustrated. Vol II., 744 pages, illustrated. Lea Brothers & Co., Philadelphia, Pa.

Sciatica. By A. Symons Eccles. 8vo, 88 pages. Macmillan & Co., New York.

Transactions of the New York State Medical Association for the Year 1892. 8vo, 834 pages.

Transactions of the Michigan State Medical Society for the Year 1893. Vol. XVII., 8vo, 368 pages.

Medical Record

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Original Articles.

THE TREATMENT OF EXOPHTHALMIC GOITRE, BASED ON FORTY-FIVE CONSECUTIVE CASES.[1]

BY A. D. ROCKWELL, A.M., M.D.,

NEW YORK.

IN considering this strange and intractable disease I shall enter into no speculations as to its pathology, for the reason that all explanations of the phenomena that attend it are in the main conjectural. Neither shall I take time in discussing its etiology or its well-known symptoms, for these can be found in every text-book on Neurology, with little variation of detail. The evidences of pathological anatomy have thus far been so thoroughly negative that we are left to the symptoms alone for guidance in treatment.

These are, however, so positive and suggestive as to afford ground for a rational therapeutics, the end of which must be to regulate and give tone to nerve force, and to equalize the circulation.

In an experience including the treatment of forty-five cases of exophthalmic goitre, dating from 1876 to the present time, a period of sixteen years, I have been enabled to clinically study the disease very thoroughly, and form an opinion as to the benefits to be derived from certain methods of treatment not altogether in accord with prevailing opinions. In short, I hold that the prognosis in this disease is better than is generally believed, and if my results have been more satisfactory than others that have been reported, it has been due to a more rational use of the remedy which has been my main reliance, and greater thoroughness and persistency in its application.

The remedy to which I refer is electricity, and while I by no means exclude the administration of drugs in the management of this disease, they are in my hands regarded as supplementary to the chief remedy, and subject to changes according to the indications in each individual case. The surprising lack of unanimity of opinion in regard to the efficiency of medicinal treatment is due to the fact that, not only have those drugs that have proved beneficial in some cases failed to do good in others, but sometimes a drug that has in one case proved palliative has in another seemed to do harm. Iron, for example, is a universal remedy that is perhaps in the majority of cases fully indicated and is well borne, but I have occasionally found it to be productive of unpleasant symptoms even when anæmia existed, and have been compelled to discontinue its use. The statement of Von Graefe, that iron is useless in the height of the malady, but that it does good when a certain amount of improvement has occurred, is an observation of value, and founded upon an extensive experience.

My own experience has not been very favorable to the use of quinine, strychnia, or arsenic, and I now rarely administer them, and I believe the iodides often do more harm than good.

Belladona has been highly recommended, and is undoubtedly of value. Carbazotate of ammonia I have used in but one case, but discontinued it after ten days, on account of the gastric disturbance that it seemed to occasion. Digitalis is by some believed to be useless in this disease, on the theoretical ground that it directly stimulates the muscular fibres of the cardiac vascular system. While the value of this remedy is now well recognized, there still exists much difference of opinion as to the method of its action. It has been regarded as a tonic, a stimulant, and as a sedative. The latter view, as is well known, was taught by Trousseau long ago, who held that it occasioned contraction of the superficial blood-vessels, thus producing diuresis, very much on the same principle as the action of fright or cold. In a recent discussion[1] Professor Crocq held that digitalis was not a sedative nor a cardiac tonic any more than alcohol is a tonic to the brain. It is simply a stimulant. Another view is that digitalis acts on the pneumo gastric and sympathetic nervous system, thus regulating the action of the heart. By one the remedy is believed to act only on the left heart, by another on the right heart as well, retarding the action of both. But whatever theory is accepted, obstinate experience will not wheel into line at the command of any theory, however plausible.

On the theory of the stimulant and tonic action of digitalis I hesitated for a long time to use it in this disease, but when I finally came to put it to the test of actual trial I was most agreeably disappointed in the results, especially when combined with certain other remedies to which allusion is made further on.

If the heart seems abnormally strong in exophthalmic goitre, this is not by any means always the case. Very frequently there is enfeeblement of the myocardium, and digitalis is in many cases useful in slowing the rapid systole associated with it. The condition of the heart thus becomes improved by the physiological rest it obtains through prolongation of the diastole.

Yet, like iron, digitalis may under certain conditions prove not only useless but harmful; but like iron, and especially in combination with iron, it possesses undoubted value. In what may be termed sthenic cases, where the excitability of the heart is great without enfeeblement, digitalis is certainly contra-indicated, and one such case will be found in this report. In this case good results were obtained by substituting veratrum viride for digitalis.

Strophanthus has received high commendation, and on theoretical grounds it is recommended in preference to digitalis. While both tend to lengthen the interval between the contractions of the heart, strophanthus is supposed to contract the calibre of the arterioles in less degree than digitalis, and is to be preferred as not increasing the work of the heart to the same degree as the latter.

In conjunction with digitalis or strophanthus, and iron, ergot and bromide of zinc seem to me to be distinctly valuable, and I have no hesitation in saying that a combination of these remedies will more nearly fulfil the indications in the majority of cases of exophthalmic goitre than any other single remedy or combination of remedies. There are probably to be found few, if any, who will not accord to electricity an important place among the remedies indicated in exophthalmic goitre, and unlike some others mentioned, it cannot, if judiciously used, do harm even in those cases where it does no good.

Gowers, who does not in general accord to electricity a very high place in therapeutics, yet says that in this disease it is followed in many cases by a distinct fall in the frequency of the pulse (amounting to 10 and even 20 beats per minute), and sometimes by a slight diminution

[1] Read before the Pan-American Medical Congress, Therapeutic Section, September 7, 1893.

[1] Academy of Medicine, Belgium, January 28, 1893.

in the size of the thyroid. In one case he observed the pulse fall from 90 to 72, a lower rate than had been counted during the preceding two years.[1] He adds, however, that such effects are usually transient, although repeated applications certainly sometimes cause a slight degree of permanent improvement. He has not seen more than this.

Even such results as Gowers describes are not to be despised, but the difficulty with his efforts, and with others who have written upon this subject, is the utter inadequacy of the strength of current used, and, above all, so far as my observation goes, in the incomplete and haphazard way in which the applications are administered. Gowers would use a weak galvanic current, sufficient to cause merely a slight tingling of the skin, while others who have written extensively upon the subject are content with two or three milliampères. These authorities do not seem to appreciate the fact that in the therapeutic use of electricity they are dealing with a hide-bound body which offers such a resistance to the passage of the current that our ingenuity is taxed to its utmost in order to overcome this resistance and get into the body a sufficient quantity of electricity to appreciably affect the cerebro-spinal system and the nervous system of vegetative life, the pneumo-gastric, the great sympathetic, including the vaso-motor system of nerves. These large current strengths cannot, of course, be used with small electrodes applied in the ordinary way over the region of the sympathetic and vagus in front of the neck, and from the mastoid process along the inner border of the sterno-cleido-mastoid muscle to the manubrium sterni. Here, although the current strength should be much higher than is usually recommended, it is rarely possible to exceed ten or fifteen milliampères. For the greater strength of current, large electrodes, preferably of sculptor's clay, should be applied both to the back of the neck (cilio-spinal centre) and solar plexus. With electrodes in this position I have frequently used as high as sixty milliampères, and with results the most beneficial.

I do not, however, recommend such apparently heroic treatment. Idiosyncrasies vary, and there is probably no remedy to the effects of which there is a more varying degree of susceptibility than to electricity. Every case is a law unto itself, and should be studied independently, with the exercise of judgment and common-sense in its management.

But if my results in the treatment of this disease have been exceptionally good, I attribute it in part to the fact that I have not confined my efforts to the use of drugs and the galvanic current alone, but have in many instances combined with these methods the most thorough and persistent treatment by the method of general faradization. While the methods of Eulenberg and Gutman in using simple localized faradization in the vain attempt to affect directly the sympathetic, and the faradization of the precordial region by Vigoroux and Charcot, may possibly do some good, they cannot compare in efficiency with general faradization, a method which has been abundantly tested and which rests upon a sound physiological basis. What localized faradization is to an individual part or organ, general faradization is to the whole body. In exclusively localized faradization the increase in the processes of waste and repair and improvement in nutrition are mainly confined to the part which is traversed by the current, but in general applications these effects are appreciated by every part of the system. The improvement which each part or organ receives from the treatment reacts upon every other part, and every effect becomes in its turn a cause. While, therefore, I consider electricity of rather more importance than any other remedy in the treatment of this disease, yet in many cases the most rigid and conscientious observance of certain fixed rules in regard to eating and drinking, and the avoidance not only of excess in every department of mental and physical hygiene, and even the repression of ordinary and legitimate emotion and passions, become very essential. For the majority of these forty-five cases of exophthalmic goitre I am indebted to the kindness of the various members of the profession, most of whom have watched with interest the progress of the cases and have noted both the successes and failures.

I do not propose, however, to relate the failures nor to report in detail the cases (only too many in number) which experienced only partial and incomplete relief. Some absolute failures occurred, but not many. It is rare, indeed, that through the combined method of hygiene, diet, drugs, and electricity, the disease fails to be in some degree favorably influenced, for out of these forty-five cases there were but three that received no benefit whatever, and these were not even temporarily relieved.

Twenty-seven of these cases were benefited, some of them in very great degree, others only slightly. Some of those that were much benefited relapsed and received further treatment with good results, while others have been lost sight of and their subsequent history is unknown. In fairness, however, it must be said, that while the most persistent treatment failed to do more than slightly improve many of these cases, some of them, which otherwise possibly might have been benefited, discontinued treatment after a comparatively short period.

Fourteen of these cases either fully or approximately recovered, and as the first six have been reported,[1] I shall very briefly allude to them, giving in full only the eight more recent cases.

Case I.—Mrs. G——, aged about forty years, was referred to me May 3, 1876, by Dr. S. S. Purple, and during the treatment, and for many years after, until her death, was under the constant observation of Dr. J. J. Griffeths, of New York. Pulse was violent, and from 115 to 140; exophthalmus prominent, and thyroid considerably enlarged. First symptoms, three years previously. Approximate recovery, the only symptoms remaining after several months of treatment being slight exophthalmus and thyroid swelling with occasional cardiac palpitations.

Case II.—Mrs. H——, aged forty-two, came March, 1877. Pulse, 85 to 90; goitre quite large, but no exophthalmus; recovery.

Case III.—Mrs. E——, aged thirty-one, sent by Dr. I. B. Read, of New York, October, 1878. The three cardinal symptoms present. Pulse, 120 to 125, and occasionally 150; recovery.

Case IV.—John L——, aged twenty-nine, came July 6, 1879. The three cardinal symptoms present in marked degree. Pulse, 125; recovery.

Case V.—Mrs. C. H——, came September, 1879. with the three cardinal symptoms well marked. Pulse, 110; recovery.

This case examined on one occasion by Dr. P. B. Porter.

Case VI.—Miss M——, aged twenty-two. Referred to me by the late Dr. C. B. Belden and by Dr. J. E. Stillwell, of New York, October 18, 1879. All three symptoms present, the exophthalmus and thyroid enlargement in greater degree than the excitation of the heart, which beats only at the rate of 88 per minute; recovery.

Case VII.—Miss B——, aged about twenty, was referred to me June 11, 1882, by her physician, Dr. A. R. Carman, and by Dr. Richard Van Santvoord, of New York. This case was a very aggravated form of Graves's disease.

The eyes were unusually prominent, the goitre large, and the pulse seldom if ever under 140, and frequently reaching 160. The beginning of her symptoms dated back between two and three years, and had gradually reduced her until she was unfitted for all active effort. The patient received some seventy applications, resulting in a permanent recovery. Her present condition, ten years since the cessation of treatment, is this: Pulse, 75 to 85, with hardly a perceptible enlargement of the thyroid or protrusion of the eyes. The patient's general health is.

[1] Disease of the Nervous System, p. 1214.

[1] New York Medical Record, vol. xviii., No. 11.

and has been, excellent for years, and she can engage without restraint in all the ordinary pleasures and activities of life.

Case VIII.—Miss D——, aged twenty-nine, was referred to me by Dr. Stephen Wickes, of Orange, N. J., March, 1885, with the three cardinal symptoms of the disease well developed, the exophthalmus, however, being much less marked than the other two.

The pulse when ordinarily tranquil was 125, sometimes considerably higher, and on one occasion under excitement it beat at the alarming rate of 175 per minute. The heart was slightly enlarged, and the systolic murmur, which is so frequently present in these cases, was unusually loud and could be distinctly heard, even when the ear did not touch the chest.

The disease was not of recent origin, for some four years before, when nursing a sick relative and subject to much physical and mental strain, she first observed symptoms of disturbed heart action, and shortly after the throat and eyes both became affected.

The patient was under observation and treatment until April, 1886, a little more than a year, and in that time received eighty-five applications of electricity, with the result of a gradual but steady improvement not only in the condition of her general nervous system, but in the special symptoms characteristic of the disease. The systolic murmur entirely disappeared, the pulse sank to a permanent rate of about 80, and the eyes resumed their natural appearance. Her general health is excellent.

Case IX.—Miss R——, aged twenty, was brought to me on November 16, 1887, by Dr. F. Myers, of Fort Worth, Tex.

The thyroid was only slightly enlarged, but the eyes protruded to a degree that greatly altered her expression, and was the source of much annoyance. The heart pulsated at the rate of 120 per minute, but on occasions of excitement and physical fatigue I have counted it as high as 150. These symptoms had existed some three years, but all her bodily functions were normal, and, contrary to what is usually observed, her general health and strength first-class. This was one of the few cases that have come under my observation when digitalis seemed to do harm.

Whenever it was given in any considerable dose, either alone or in combination, the excitability of the heart was undoubtedly increased, and this effect I attributed to the fact that, associated with the over-excited cardiac contractility there was absolutely no enfeeblement of the heart muscles. Strophanthus proved equally unpleasant in its effects, while veratrum viride was found to exercise the most salutary influence. No other drug was given for its direct effect upon the heart, and the treatment was practically confined to electricity alone and extended over a period of fourteen months. From November 16, 1887, to March 23, 1888, she received sixty-six applications, with an interval of rest until October 17, 1888, when she received forty-seven additional treatments between that date and January, 1889. During the first two months of treatment there were but slight evidences of improvement, but during the following two months the eyes became less prominent and the goitre perceptibly decreased in size. In March, when she temporarily discontinued treatment, the pulse had not only fallen to 100 beats per minute, but was not readily susceptible to ordinary emotional or physical causes. Seven months after, when she returned, I found her in about the same condition as when she left. Resuming treatment on October 17th, she perceptibly gained during the next three months, and was finally discharged as approximately cured, the pulse seldom rising above ninety, with but slight evidences of exophthalmus or thyroid enlargement. The patient has since married.

Case X.—Mr. B——, aged about thirty-five, was referred to me by Dr. E. Hochheimer, of New York, January 5, 1888, with comparatively slight but persistent evidences of the disease. The pulse was 100, with slight swelling of the thyroid. There existed neurasthenia with extreme melancholy, and while there was hardly any exophthalmus, there was present the somewhat rare symptom of obstinate œdema of the eyelids. The patient fully recovered after forty applications of electricity, extending over a period of three months.

Case XI.—Mrs. M——, a widow aged thirty-one, consulted me January 9, 1888, with the following history: Five years before, her first child was born after a prolonged and unusually severe labor. She convalesced slowly, and in a few months more or less began to notice an undue activity of the heart, with shortness of breath, whenever she ascended the stairs or walked more rapidly than usual. These symptoms did not greatly increase until about two years ago, when the heart began to give her more trouble, and she first noticed a "a strange appearance about the eyes and a fulness in the neck." The eyes were now very prominent, the thyroid about as large as a small hen's egg, and the pulse-beat from 128 to 135 per minute. She was markedly anæmic and extremely nervous. The patient was under treatment from January 9th to April 7th, and then again from June 8th to July 29th, receiving in all some fifty-five applications of electricity.

Recovery has been approximate and permanent. The eyes are perhaps slightly more prominent than natural, but not to a degree to excite comment. There are only traces of the enlarged thyroid, while the heart pulsates at a uniform frequency of between 80 and 90 per minute. Her general nervous condition also improved to such a degree that she now counts herself a well woman.

Case XII.—Mrs. E——, aged thirty-four, was seen with Dr. J. H. Gunning, of New York, April 21, 1888. Four years before, she had miscarried, and subsequently had worried much over domestic troubles. Three years before, her heart began to trouble her, and soon after she observed a slight protrusion of the eyes and some enlargement of the thyroid. When Dr. Gunning and I first saw her the eyes were prominent, but the gland was only slightly though perceptibly enlarged. The pulse ranged in frequency from 115 to 135, and on one occasion we counted it at 165. The patient has lost much flesh, menstruation was irregular and profuse, and with a generally nervous condition was associated a very decided muscular tremor whenever she attempted to move the hands, simulating in marked degree the tremor of paralysis agitans. The patient was under treatment, with some intervals of rest, for seven months. During this time she received seventy-three applications of electricity and was discharged approximately cured. The pulse never rose above 100 and was usually at 85, the tremor had entirely disappeared, and the eyes were quite normal.

Case XIII.—Miss S——, aged twenty-five, came to me August 6, 1890, through the kindness of Dr. W. T. Giddings, of Gardiner, Me., with well developed evidences of Graves's disease. The eyes were slightly though distinctly protuberent. The thyroid gland was enlarged to the size of a very large almond, while the pulse beat at the uniform rate of 120, running up, however, on slight exertion, much higher. All exercise was exhausting, and ascending the stairs especially so. That the disease was not of recent origin was evidenced by the history given. As far back as 1885, while a pupil at Wellesley College, the act of recitation would cause her hands to tremble and perspire, her heart to beat tumultuously. When the cause of excitement was over, the heart would resume its normal action; but she noted, as time went on, that this instability of the heart-beat became more frequent and prolonged, until finally it "went wrong" always, as she expressed it. It should be stated that the patient was somewhat anæmic, and since the age of fourteen has suffered from myopia and astigmatism. In 1887, and then again in 1889, she had slight attacks of the grippe, which occasioned a decided increase in the severity of her symptoms. The symptoms, however, that were most distressing, if not the most serious, were the frequent and terrific headaches from which she suffered.

These were associated with intense nausea, lasting some twenty-four hours and recurring almost every week. The

patient was first treated through a period of seven months to March 19th receiving some thirty-seven applications of electricity, improving gradually in every symptom.

In July treatment was again resumed and continued until she had received some twenty-five additional applications. To this date the patient, who is under constant observation, retains all the benefit that she at first received. The pulse is 70 to 80, the eyes normal, and the thyroid enlargement gone. More perhaps than all else, she has been so relieved of the distressing headaches and nausea that it is only at long intervals that they occur, and with no great severity.

Case XIV.—Mrs. J., aged thirty-four, was referred to me by Dr. George W. Harrison, of New York. She was in an extremely nervous condition, with a very decided enlargement of the thyroid, a pulse of 130, but no exophthalmus. She first observed some disturbance of the heart-action three years before, and a few months thereafter she detected evidences of a swelling in the throat. This patient was treated every day for two weeks, when she was obliged to leave town, but in that brief period, contrary to my expectation, all the symptoms were very decidedly alleviated. After a thorough and prolonged séance of galvanization of the sympathetic, central galvanization and general faradization, the pulse invariably subsided some fifteen or twenty beats, only to rise somewhat during the next few hours. It was every day noticeable, however, that the pulse beat with less violence and frequency, and when she left town it rarely rose above one hundred.

The method of treatment adopted by me was carried out by her family physician, Dr. J. W. McLaughton, of Austin, Tex., and according to a communication from the patient, the pulse finally reduced to 80 and 85.

THE USE OF ACONITE IN THE TREATMENT OF TETANUS.

By L. L. von WEDEKIND, M.D.,

UNITED STATES NAVY.

Having recently successfully treated a serious case of tetanus, using in conjunction with other drugs large doses of the tincture of aconite, and believing, from close observation of the case and the behavior of the drug, that the patient's recovery was due in large part to its beneficial action, I give for these reasons a summary of my notes of this case.

The exciting cause of the trouble I believe to have been the tropical influence of eight degrees north, assisted by an ulcerated tooth; without this tropical influence I imagine nothing peculiar would have occurred.

We lay in the harbor of Corinto, Nicaragua, for nine days, sailing thence south. On June 11th, at sea, one day out from Corinto, the patient, a hale and hearty man of about thirty years, reported at morning sick call, complaining of inability to move the jaws. He had for three days been suffering with a toothache, though an examination of the affected part shows no swelling. The jaws firmly locked and the muscles of the face, neck, and back rigid. Much pain in the back and neck. Face anxious and eyes wide open and staring. Pulse, 110; temperature, 102.4° F. Owing to the locked jaws and tightly drawn lips, speech is very indistinct. Patient put to bed, and at 9, 11 A.M., 1, 3, 5, and 7 P.M., or every two hours during the day, the following mixture was given: Tr. opii, ℥ xv.; chloral hydrate, gr. xx.; potass. bromid., gr l. This was mixed with water and administered through the spout of a feed-cup, while patient was in a reclining position. Whiskey and beef tea given whenever patient was thirsty.

At 4 P.M. of the first day, no effect of the medicine was noticed, not a wink of sleep, and pain still well marked. The temperature at 3 P.M. had reached 103.8° F., when ℥ v. of tinct. aconite was given and repeated at 4 and 5 P.M. At about 5 P.M. the patient dropped off asleep and slept until 7 P.M. After the administration of the aconite, a change was noticed: pain less, and a gentle moisture in general over the whole body, also a marked feeling of relief.

The opium and chloral were now at work, and the rest and sleep gained from their action retarded the rapidly reducing strength.

At 7 P.M. the temperature was 102.6° F., and the patient was given a bath of equal parts of cold water and alcohol. Every four hours during the night the opium mixture was given, and the aconite every three hours. The action of this drug was noticed early, and though the dryness of the throat was exceedingly distressing, the general relief was so marked that the dose was only reduced when the effect upon the general system was undoubted.

At 9 A.M. of the second day the temperature had reached 104.2° F., with a pulse or 120. The aconite administered in about eighteen hours amounted to about three-quarters of a drachm, still its controlling influence upon the temperature seems to have been slight. However, without it, the temperature might have gone much higher.

The opium mixture was given as on the first day. The pain in the neck and back, though less, is still very severe and sleep is almost impossible. Bath of cold water and alcohol frequently given; thirst very great and the mouth and throat dry. At 3 P.M. the temperature, despite both external and internal treatment, reached 104.8° F. Tr. aconite ℥ v. every hour for three doses now given, this in addition to that regularly given during the day and night.

At 7 P.M. of the second day the effect of the drug was such as to almost prostrate absolutely the patient, *still*, relief after the administration of the hourly doses was, as he expressed it, "heaven to him." Sensation almost gone, tingling marked, and the temperature 1° less. The asthenia, owing to the drug more than to the disease, though very marked, is not alarming. Opium mixture every three hours from 6 P.M. At midnight the pain of the muscles of the neck and back was such as to render sleep impossible. No aconite had been given since 6 P.M., and the effect of that previously administered had worn off. Patient was now given of chloral, 25 grains; bromide, 50 grains, tr. opii, ℥ xxx., and 5 drops of aconite. At 3 and 7 A.M. the opium mixture of the first day was repeated.

Third day.—Passed a restless night; treatment same as on first day. At 4 P.M., temperature 103.6° F., and pulse, 130. No change in the rigidity of jaws, pain slightly less, though the agony in back and neck exceedingly marked and very prostrating. The opium mixture given every four hours, aconite ℥ v. every three hours, and its action very closely watched. Stimulation as necessary.

Fourth and fifth day as above in general progress and treatment. On the evening of the fifth day, the jaw very minutely relaxed; the flat handle of a silver fork can enter between the teeth. Temperature, 101° F.; patient sleeping better.

On the sixth day the opium mixture every five hours, and aconite every four.

On the seventh day, temperature, 100° F.; jaws somewhat relaxed and movable through about half an inch. The muscles of the back and neck exquisitely tender.

On the tenth day the jaws wholly relaxed and all medication ceased.

From the facts obtainable in reviewing the above case, the conclusions I reach are: That the temperature was controlled to some extent—very probably to a great one—by the aconite; this balancing, the saving of strength thus obtained, as opposed to the loss occasioned by the drug. If of reflex action in incipiency, and continuous throughout the whole course, this disease should in great measure be controlled by aconite, judging by its known physiological action. I am almost positive of its ability, in this disease, to assist the action and consequent relief and benefit obtained by the exhibition of opium, chloral

and bromide. Its depressing action is easily overcome, and the assistance it offers in maintaining strength by inducing the action of associates, easing pain, and causing sleep, counterbalance the danger of its administration in large, frequent, and often dangerous doses.

U. S. S. Alliance, August 16, 1893.

THE PREVENTION OF TRUE AND FALSE DIPHTHERIA.

By F. W. KOEHLER, M.D.,
LOUISVILLE, KY.

Few diseases have been the subject of more constant study, and few have finally been more thoroughly elucidated, than diphtheria. In the light of bacteriological research, what is this dreaded disease? The word signifies a false membrane (literally a skin), hence every membranous inflammation might be called diphtheria. There is one form, however, that produced by the Loeffler bacillus, which is particularly dangerous, and rightly or wrongly, the name has been given to it exclusively; the other varieties—due to certain streptococci and staphylococci—being now classed under the comprehensive terms, pseudo or false diphtheria, diphtheroid, etc. There is then, only one true diphtheria, but there are a number of varieties of the false. A very important point is, that the true and false often resemble each other so closely that they cannot be distinguished by the naked-eye appearances alone. Only by means of a bacteriological examination of the membranous exudates can an accurate diagnosis be made; hence every case should be thus examined. Physicians not familiar with the method should either learn it, or send their specimens to some competent bacteriologist for examination. The city of New York has set a grand example in establishing a special laboratory for the free diagnosis of these cases. It is to be hoped every city in the land will soon follow the example. Why is it so important to make an accurate diagnosis in every case? is often asked. Chiefly because it enables us to determine what is really accomplished by any particular method of treatment of diphtheria, and also because it helps us to render an intelligent prognosis. As I believe in isolating cases of false as well as true diphtheria (for reasons to be given presently), I do not share the opinion of some physicians who consider an accurate diagnosis mainly valuable as a means of deciding which cases to isolate and which not. The reports of results obtained by various methods of treating diphtheria, published until very recently, have been next to valueless, because the cases of false diphtheria have not been properly separated from the true. Hereafter, however, everyone recounting his success in the treatment of diphtheria will have to state whether the Loeffler bacillus was present in each case.

Pseudo-diphtheria gets well almost invariably, no matter how we treat it, and it is only for the true form of the disease that an effective specific treatment is wanted. There are reasons to believe that such a method has been discovered by Behring. He claims, most positively, that his immunizing serum will not only prevent the disease, but also invariably cure it, if used promptly enough and in sufficient quantity. As the method is being systematically tried in several hospital wards in Berlin, we shall soon know what value it possesses. It is to be hoped that the time may soon come when we shall be able to prevent diphtheria, by inoculating everyone at stated intervals with a little of Behring's serum or some other substance. This time may, however, be longer coming than we wish, hence it behooves us to consider whether we cannot accomplish more in the prevention of diphtheria with the means at hand, than we do. I am convinced that we can, and the object of this paper is to advise the adoption of certain simple, but, I think, effective measures against this justly dreaded scourge. Who doubts that the number of cases could be reduced to an insignificant few, if we fought diphtheria as we do cholera? And why should it not be fought as vigorously? Considering the terrible character of the disease and the great mortality from it, there is a strange laxness observable in the measures usually adopted against it.

The conviction has gradually forced itself on me that we should adopt as rigid measures against false as against true diphtheria. The various forms of pseudo diphtheria are not very dangerous diseases, but they undoubtedly pave the way for the true. Furthermore, a combination of true with false diphtheria is much more dangerous than the former alone. The septic and pyæmic symptoms so often noted in these mixed cases have been shown to be due to streptococci, and not to the Loeffler bacilli. It is consequently almost as important that a patient with true diphtheria be prevented from taking in addition the false, as that a patient with the latter be prevented from taking the former. Roux and Yersin, those excellent observers to whom we are indebted for so much valuable knowledge of diphtheria, have also shown (*Annales de l'Inst. Pasteur*, No. 7, 1890) that weakened Loeffler bacilli can be made active and virulent again by inoculating streptococci with them. All of these facts demand that false diphtheria be guarded against as rigidly as the true.

At the outset of our inquiry into the preventability of diphtheria, the question presents itself: Can we give to the individual greater resisting power against the disease? Undoubtedly this can be done, both by general and local measures; best by a combination of the two. It is well known, of course, that we are less prone to infectious diseases when in robust health than when weak and sickly. Close inquiry discloses the fact that many children with diphtheria have been ailing in some other way before contracting it. There are a number of agencies that quickly lower the vitality of the bodily cells, and thus render them more vulnerable to the attacks of virulent germs. Chief among such causes are the following: hunger; physical and nervous exhaustion; exposure to cold and wet (or either alone); and mental shock and depression. In a considerable number of my cases of diphtheria the onset of the disease quickly followed some unusual exertion, with incidental exposure to cold and wet, and in one case it occurred during the shock and mental depression produced by harsh punishment, the patient, a very sensitive child, received at school. An interesting observation, indicating how potent a factor exposure to cold is in the production of disease, was reported (*Lyon Méd.*, October 19, 1890) by Lipari. He injected pneumonic sputum into the bronchi of numerous animals, but was never able to produce pneumonia thereby unless he exposed the animal to cold immediately before or after the injection.

It is a well known fact that our upper air passages swarm with numerous varieties of bacteria (and no doubt the Loeffler bacillus is among them quite frequently) at all times, but that they are incapable of much mischief while we are in good health.

Through such depressing agencies as have just been mentioned they are given an opportunity of multiplying and increasing in virulence, and finally inducing disease. Hence the importance of maintaining a high standard of general health. Speaking of the bacteria that constantly infest the cavities of the head and the throat, brings me to a most important subject, viz., the local preventive treatment of diphtheria and pseudo-diphtheria. Results that I have obtained by such treatment have prompted me to write this article. How to destroy the bacteria referred to, or at least to weaken them to such a degree that they shall cease to be a menace to health, is a question that naturally at once suggests itself. In a paper published in this journal a number of years ago, I insisted that the toilet of no child should be considered complete until its mouth, throat, and nasal passages had been as thoroughly cleansed as its face. Weak solutions of creolin were advised for the purpose. Since then I have constantly acted on this idea, and feel certain that I have thereby prevented many cases of infectious throat disease. I have, whenever diphtheria has been prevalent, induced a great many mothers to spray the throats and nasal pas-

sages of their children several times daily, and have yet to see the first child systematically treated in this way develop either false or true diphtheria. Some writers desire us to believe that spraying a membrane is bound to irritate it and lead to disease. I am prepared to deny such statements. They are, in my opinion, founded on theory and not on fact, for in my experience an unhealthy membrane improves and a healthy one simply remains healthy, when subjected to daily spraying with mild, warm solutions. Theoretical objections, and exaggerations of occasional observations, should be ignored. Formerly I frequently saw one child after another of the same household develop diphtheria or pseudo-diphtheria, but now, since I isolate every case (whether false or true), and insist on all the well members of the family as well as the sick using antiseptic sprays and gargles, I never have that experience. Isolation does not alone account for it, for I have noted the same absence of secondary cases in small houses and flats where it was impossible to separate the well from the sick. Failure to cleanse and disinfect the nasal passages and throats of children exposed to diphtheria, seems to me, in the present state of our knowledge, next to criminal. Having discussed the question of personal prophylaxis of diphtheria, it is now in order to inquire into the chief sources of infection and to suggest measures for their suppression.

There is no doubt that many cases of false and true diphtheria are contracted at school, and when we study the habits of school-children this does not appear at all strange. The frequency with which chewing-gum is transferred from one child's mouth to another's is alone sufficient to spread the disease. In addition, however, children constantly borrow each other's pencils, and few of them ever write without first wetting the pencil in the mouth. In cleansing their slates they are equally filthy. They use each other's slates indiscriminately, and in cleansing them often pass a finger from the mouth to the slate a dozen times. The chewing of gum, paper wads, etc., causes great activity of the salivary glands, and much saliva is consequently deposited on the floor. Here it dries and leaves an infectious dust which is kept in motion by the shuffling of many feet. Whether many germs are carried out into the atmosphere during quiet breathing is a question, but there is none that every expulsive cough sends out thousands of them; and all the diseases here referred to, cause, of course, more or less coughing. Coupling these facts with another very important one, viz., that school rooms are very badly ventilated during the cold months, we cannot wonder that so many fatal cases of infectious disease are contracted at school. And yet this need not be. Very simple measures would suffice to make the school-room quite safe. If a daily examination of all pupils were made by competent physicians, and every child at all suspiciously ill sent home immediately, the schools would soon cease to furnish the thousands of cases of diphtheria, scarlet fever, etc., that they now do. One or more physicians should be appointed to each school, and as an examination of the nose and throat requires but little time, their work would not curtail the school hours materially. And to what extent would such a service increase taxation? Not very greatly, surely; insignificantly, in fact, when we consider what would be gained. What good citizen would protest against paying a few cents more in taxes if he, in turn, could feel that his children were safe from contagious disease while at school? Of course, from what has been said it follows, also, that the habits of school children should be corrected, that ventilation should be insisted on, and that school-rooms should be constructed much like operating-rooms, to facilitate their cleansing and disinfection.

Defective sewer-pipes, dampness, and lack of cleanliness, account for most cases of diphtheria occurring in private residences. Dr. Fischer's investigations (see this journal, January 28, 1893) have demonstrated the presence of the Loeffler bacillus, the undoubted germ of true diphtheria, in the gases arising from sinks. Hence the importance of a perfect sewerage system. Every city should have a corps of sanitary inspectors, who should allow only sewerage fixtures of approved pattern to be put into buildings. Dr. Fischer comments on the fact that the sewer-traps themselves may become, if not properly flushed, breeding grounds for bacteria. In this connection I will remark that it has often occurred to me, that the waste-pipe of a washstand or sink may be a source of infection. I refer to that part of the pipe between the external opening and the nearest trap. This section of the sewerage system gets the warmth of the house; has quantities of organic matter poured into it; has water more or less constantly running through it; always contains air, and is consequently a most perfect culture ground for many kinds of bacteria. The traps may therefore be in perfect order, and yet we may not be safe. Some device to shut off also this part of the sewerage system from all communication with the atmosphere of the house, seems to me to be badly needed, and I think an opportunity is here offered some inventor. I have occasionally sought to accomplish the purpose by having cloths saturated with some antiseptic solution placed over the external opening, but owing to the carelessness of servants and others, such a plan is hardly feasible. Only during the panic produced by the occurrence of a succession of cases of diphtheria or typhoid fever, would such a measure ever be properly carried out. What is needed is an automatically acting device which will hermetically seal a waste-pipe at its external opening.

Cases of diphtheria also often arise on premises having no sewer connections—in country homes, for instance. Against such cases it is no doubt difficult to direct specific measures. Knowing, however, that the germs of true and false diphtheria can grow only on organic matter of some kind in the presence of moisture, it is in order to keep the house and premises as dry and clean as possible.

Children should also be cautioned against playing about the refuse heaps of stables.

The drinking-water is another source of danger. In the *Deutsche med. Woch.*, No. 29, 1893, Dr. Landmann reports the finding of a virulent streptococcus (the strep. longus) in the water of a well used by a number of families that had been unusually afflicted by diphtheria, or what had been called diphtheria.

Having considered some of the chief sources of direct contagion and infection, I come now to the question of the transportability of the diphtheria germ. It can, no doubt, be safely stated that the disease is not often carried from one person to another by a third—experience proves this—but no logical individual will deny its possibility. Even physicians, or possibly I should say, particularly physicians, may, if careless, thus spread the disease. It happens quite frequently that a child whose throat is being treated coughs violently, and thus transfers a quantity of infectious matter to the physician's clothing. Having dried there, it is later liberated and propelled into the atmosphere by the crumpling of the clothing occurring with every movement of the arms, and what is to prevent its being inhaled by some other child the physician may possibly have taken on his lap for examination? Well founded and logical indeed are Behring's demands, that physicians practise asepsis and antisepsis as rigidly as the surgeons. It is not at all unlikely that we may sooner or later be forced, by the logic of the situation, to adopt clothing that can be sponged off with an antiseptic solution a dozen times a day, if need be. Such clothing is already worn in some of the special hospitals abroad, and why should hospital patients be guarded against infection more carefully than private ones. There is every reason why the exposed clothing of physicians should be made of some material (mackintosh, for instance) that can easily be rendered aseptic. A rubber skull-cap should also be put on before entering the sick-room, and physicians persisting in wearing long beards should spray them thoroughly with some reliable antiseptic after every visit to a contagious case. Until aseptic dress is adopted, we should at least consider it our duty to disinfect most thoroughly any part of our clothing that

may have suffered contamination; and this should be done before going to see the next patient. Those tiresome and illogical individuals in the profession who so volubly declare that diphtheria is not contagious, and that it is unnecessary to isolate a household in which it exists, will no doubt hoot at these suggestions. Unfortunately, the opinion of these persons, though not in itself interesting or valuable, acquires importance because it is misleading and dangerous to an uninformed public. And this danger will probably continue until the law shall hold physicians responsible for every infraction of the principles of asepsis.

HAVE THE RED BLOOD-CORPUSCLES A NUCLEUS?

By WILLIAM MOSER, M.D.,

Assistant Pathologist to St. Catharine's Hospital, Brooklyn, N. Y.

If we define a nucleus as a "special collection of protoplasm marked off by a definite outline from the rest of the cell, and distinguished from it by resisting the action of acids or alkalies which destroy or render invisible the body of the cell, and by imbibing the stain of carmine, hæmatoxyline," etc. (Gray), we find these requirements filled in the nucleus or nuclei of the white blood-corpuscles. But since we know so little of the chemistry of the nucleus or in fact of protoplasm, I feel justified in asking the question, are these properties essential in constituting a nucleus? In determining the question as to whether or not the red blood-corpuscle has a nucleus, I used methylene blue, which we preferred to carmine, hæmatoxyline, etc., for the following reasons:

The stain (methylene blue) was given internally, according to the suggestion of my friend, Dr. J. Fuhs (physician to St. Catharine's Hospital), in one-grain doses three times a day to different patients. The blood when examined by this process is already stained by nature. In short, the patient does our laboratory work. It is obvious that this method removes many objections to artificial processes. The blood, when examined fresh in these cases, showed plainly the nucleus or nuclei of the white blood-corpuscles stained blue. The polynuclear cells (accepting Ehrlich's classification for all practical purposes). were especially well stained. The protoplasm, in contradistinction to the nuclei, remained unchanged. The blood taken from convalescents from fracture showed that the red blood-corpuscles too showed this distinction. In the centre of the corpuscle was found a collection of protoplasm stained faintly but distinctly from the rest of the cell. It did not imbibe a distinctly bluish tinge in these cases, but more reddish, as is seen in the nuclei of the white blood-corpuscles when the blue is given in only half-grain doses twice daily and examined the following day. In certain conditions of anæmia (complicating tuberculosis) the blood showed the stain more pronounced. In specimens now in my possession it is easy to demonstrate a nucleus. In a case of pernicious anæmia the stain was still more apparent—distinctly blue. Now, it is well known that in pernicious anæmia a nucleus can be demonstrated in the red blood-corpuscles in quite large numbers by artificial staining. In a case of tuberculosis now under observation the nuclei are uniformly stained.

I am inclined to believe that by this process of staining (Fuhs's method) we can distinguish a membrane. That the red blood-corpuscle has a membrane was regarded as probable by Kölliker, Richardson, and other able microscopists; but they could not demonstrate it. I am not yet ready to state positively on this point. I could also see by this method of examination (in one specimen) that the red blood-corpuscles were sending out processes in all directions, as we are all aware is so characteristic of the white blood corpuscle. I regret not to have had an opportunity of trying this method in a case of leucocythæmia. I have had an opportunity of examining quite a few specimens of leukæmic blood in Ehrlich's laboratory, and think we are justified in making a diagnosis of this condition from a given specimen according to his teaching. In pernicious anæmia, on the other hand, I am a little at variance with the teaching of Ehrlich in Germany, or Hayem and others in France. I do not believe it has much practical value. It does not give us a clew to the underlying morbid condition. I am also at variance with the teaching of Metschnikoff. While I hope enthusiasts will not use their patients as a substitute for the laboratory, I do hope to see these experiments continued, as they may yet lead to practical results.

A grain of methylene blue will do the patient no harm, even if it does color the urine. It may be of benefit in some cases. It gives us a vast field for research. I anxiously await the verdict of the critics.

I am indebted to Dr. Carroll (physician to St. Catharine's Hospital), for the clinical material which he kindly placed at my disposal.

188 Ross Street.

Clinical Department.

GUAIACOL IN TYPHOID FEVER.

By B. M. BAKER, M.D.,

Norfolk, Va.

Having read in a recent copy of the New York *Herald* the experience of M. Holscher, of Mulheim, with this drug in treating sixty cases of typhoid fever, I thought perhaps some good might come from a brief account of my experience with this agent, in treating a few cases within the last few months.

Some three months ago, I had in charge a man thirty-five years of age, suffering from a mild attack of typhoid, who, after having had no abnormal temperature on the twenty-first and twenty-second days, suddenly had the temperature to go up to 100° F. at five P.M. on the twenty-third day. On questioning him, I found that ten years previous to that time he had suffered from what he termed bronchial hemorrhages, and although I found no signs of either recent or old chest trouble on physical examination, yet there was slight cough and scanty mucous expectoration, and I therefore thought it best to put him on guaiacol in five-drop doses, three times a day. After forty eight hours the temperature fell to normal, but the cough and expectoration continued. This rapid effect of the drug upon the temperature made me think at once of the possibility of its having the power of arresting the growth of the typhoid bacilli in the intestine.

Since then I have treated seven cases of typhoid with it, and my friend, Dr. C. F. Newbill, at my suggestion, has tested its efficacy in twelve other cases, making in all nineteen cases.

Most of the cases have been mild types of the disease, with few complications and no violent symptoms, and they have varied greatly in ages, from a baby of eighteen months to an old lady of sixty-five years.

As our German brother claims, we have found no need of antipyretic measures of any sort, and the temperature is kept constantly low, simply by the administration of this drug. With it the temperature falls, the pulse grows less rapid, the tympanites and diarrhœa disappear, the tongue becomes moist and clean, the nervous symptoms rapidly subside, and the patient goes on to a complete recovery. This has been proven in each of the nineteen cases treated by us.

One case, which illustrates more clearly the good effect of the drug, I will mention in brief. I was called to see Martha J——, a negro girl sixteen years of age, on the night of the sixteenth day of the disease, when I found her with a temperature of 105° F., pulse, 135, dry brown tongue, teeth covered with sordes, wildly delirious, picking at the bed clothes, etc. She had to be kept in bed by force. The abdomen was markedly tympanitic, and she was having frequent pea-soup evacuations. I ordered bismuth, brandy, and guaiacol in five-drop doses, given

in whiskey, largely diluted with water, three times a day, after eating; milk and beef-tea made up her diet. The next day the temperature had fallen two degrees, pulse less frequent and stronger, delirium less pronounced, and diarrhœa and tympanites much improved. Seven days from this time, I found the temperature normal, pulse 80, and patient convalescent. She is now perfectly well.

It seems to me that this is sufficient trial to justify further investigation of the power of the drug in controlling the fever in these cases, and I send you this mention of my experience, hoping that you will see fit to publish it, and that some of my confrères in the profession may adopt my suggestion, and after trying it, will write us the results of their experience with the drug in similar cases

September 5, 1893.

REPORT OF TWO CASES OF PLACENTA PRÆVIA, WITH ANTEPARTUM INFECTION —RECOVERY.

By CHARLES WILMOT TOWNSEND, M.D.,

NEW BRIGHTON, S.I.

CASE I.—On Monday, October 17, 1892, I was sent for by Mrs. G——, a multipara, who had previously engaged me for her confinement. On my arrival I found the patient lying upon a bed covered with blood, pulseless and cold, restlessly tossing from side to side. Her tongue was coated; temperature, 103° F. and altogether she presented a picture of extreme loss of blood conjoined with septic infection. She was of stout build, and her pendulous abdomen was enormously distended by the pregnant uterus.

On examination the fœtal heart could not be heard. The uterine contractions were weak and infrequent. A steady stream of blood trickled from the vagina; this she told me had continued for nearly a week. After a thorough disinfection of my hands I made a vaginal examination. The vagina was capacious, both anterior and posterior walls prolapsed. The cervix was high up and far back, and felt thick and sodden to the finger. It was dilated to the size of a silver dollar. Passing my finger through the cervix I felt the placenta as a soft mass blocking up the uterine opening. I acquainted the family of the serious condition I found, and having again cleansed my hands and arms I passed my hand into the vagina, rapidly dilating the cervix with my fingers. Sweeping my finger around the lower uterine segment I found that I had to deal with a centrally implanted placenta prævia. Without much effort, but with an alarming hemorrhage, I bored my way through the placenta and forced my hand into the uterus, where I found that the fœtus presented by the breech and was in the first position. After several efforts I finally found a foot extended in the fœtus axilla. Drawing it down, I proceeded to extract, and brought into view a macerated foot and leg. After strong traction the second foot was also brought down, but the body could not be delivered, and by examination I found that a much distended abdomen was the cause. I perforated this easily and allowed a quantity of light colored serum to escape. Hitching my forefinger on the pubic arch of the fœtus I delivered the woman of an ill smelling, hydrocephalic child, which had apparently been dead for some weeks. After removal of scraps of placenta and membranes, and irrigation with a 1 to 5,000 corrosive sublimate intra uterine douche, the uterus contracted fairly well. The fœtus was full term and much macerated. The liquor amnii was thick, dark colored, and of a foul smell. The placenta was of the usual size, of soft consistency, with yellow patches here and there, and did not contain much blood.

The family history of the woman is interesting. She is of Irish birth, thirty-eight years of age, and has borne her husband fifteen children. The first five were born alive, and of these two are now living. The next ten were still-born. Twice she has given birth to twins. She acknowledged that her husband had lived an irregular sexual life, and in all probability she acquired syphilis from him after the birth of her fifth child, as the children now living are healthy and strong.

The after-treatment was intra uterine corrosive sublimate, 1 to 5,000, douches three times a day, with carbolic vaginal douches every three hours. Active stimulation with hot milk, whiskey, and eggs, and compound tincture of cinchona as a tonic. Her recovery was complete.

CASE II.—Mrs. S——, an Italian woman, aged forty-three. Had had twelve children, all born alive, and eight now living. One twin birth and no miscarriages. No specific history. When summoned I found the patient much exhausted from hemorrhage, which had lasted off and on for two days. Temperature was 100° F.; pulse, 120 and feeble. She had had a few weak uterine contractions. Fœtal heart could not be heard. On examination the cervix was soft and partially dilated. The uterus was, as in the preceding case, blocked by the presence of the placenta. I dilated the cervix with my fingers, and sweeping them around within the uterus found that on the right side, high up, I could feel the head presenting in first position of vertex. Rupturing the membranes I passed my hand into the uterus, where I easily secured a firm grasp upon a foot and proceeded with the extraction of a dead female fœtus about full term. I then expressed the placenta and membranes, and douched the uterus with a hot corrosive sublimate solution of 1 to 5,000. The uterus contracted firmly. I ordered carbolized vaginal douches and stimulation with hot milk and whiskey. The next night the temperature had risen to 102° F, so I gave her intra-uterine douches of corrosive sublimate solution. First quart, 1 to 2,000; second, 1 to 4,000; third, 1 to 8,000, and finally, 1 to 16,000 every six hours She also got a tablespoonful of Epsom salts every hour till her bowels moved freely. As a tonic she took compound tincture of cinchona. Her niece, who took care of her, gave her carbolized vaginal douches every three hours. Her temperature varied from 101° to 103° F. for the next few days, but finally came down to normal, and she made an uneventful recovery.

The most noticeable features in the above cases are the large number of children the mothers had borne, and their infection prior to confinement. The women were both broken in health from frequent child-bearing and had large subinvoluted uteri before impregnation.

Their septicæmic infection can be easily accounted for, as they were neither over-cleanly in their habits, and one had bled for one week and the other for several days.

INFANT UMBILICAL HEMORRHAGE.

By ELMER E. KEISER, A.M., M.D.,

TACONY, PHILADELPHIA, PA.

HEMORRHAGE from the infant navel is a rather infrequent occurrence, and when it does happen it is generally about the time of the separation of the cord. It is also an accident which, if discovered early, should, it seems, be easily remedied, and if the loss of blood has not been too great, without mortality. In the majority of instances the termination of these casualties is a favorable one; unfortunately, however, the following case was an exception to these generalities.

Mrs K——, the wife of a laborer, was delivered of a female child after a short and easy labor. The mother and father were both of bilious temperament, and apparently healthy. There was no evidence of syphilis, and no history of hæmophilia in the family of either parent. The child, too, was seemingly healthy, although it was not disposed to make much noise. All its functions were properly performed. The cord became detached on the fifth day, and by the eighth it was entirely healed, and to all appearances was clean. On the evening of the twelfth day the mother found its dress soaked with blood, which was still flowing profusely from the navel. I was called at once, and responded promptly. Ergot was administered inter-

nally, and about ten minutes were consumed in employing vinegar, tannic acid, cold and hot water, with and without compression, but with no effect on the bleeding. The umbilicus was then completely closed with sutures placed by a very fine needle. This also failed, the blood flowing nearly as freely as before, and also through the track of the sutures. Two ligatures were now deeply inserted across the navel, at right angles to each other, and were tightly tied, but with no better success. Styptics and compression again proved ineffective. The child died about ten hours after the bleeding was first noticed.

I regret that at the beginning the umbilicus was not transfixed by needles, at right angles to each other, and a ligature thrown around them. The result might have been different, but it is doubtful. A small quantity of the blood was collected and showed no tendency to coagulate. A predisposing cause which suggests itself in this case is that the infant may have been poisoned by malaria, as the family lived on the edge of a swamp in which that miasm is rife.

PERSISTENT SINGULTUS.

By H. L. ROSENBERG, M.D.,

MENOMINEE, MICH.

In the MEDICAL RECORD of August 19th is a report of a case of "Persistent Singultus," by Dr. Gallant, and I wish to report a similar one. On June 5, 1893, A. C. M——, aged thirty-six, consulted me about a persistent singultus which had continued for forty-eight hours. I was unable to discover the cause, as it came on in the morning immediately after rising, and continued so long as he walked about. He could not eat, as deglutition provoked the difficulty. I saw somewhere a recommendation that full doses of pilocarpin be given, and I gave him a one-third-grain tablet of Wyeth's make. He was advised to go home and go to bed, which he did. Free diaphoresis occurred in a short time. He remained in bed one day, and has had no return of this distressing trouble.

GRANITE CHIP IMPACTED IN THE AUDITORY CANAL AND TYMPANIC CAVITY.

By CHARLES S. RODMAN, M.D.,

WATERBURY, CT.,

CONSULTING SURGEON TO THE WATERBURY HOSPITAL.

B. L——, a boy, aged ten, living in an adjoining town, pushed a piece of broken stone into the right auditory canal "to break a bubble" after bathing. His physician failing to remove it with a small glass syringe, he was on the same day taken to a medical man, known as an aural and nasal specialist. The latter, after vainly attempting to extract, referred the case to an able general surgeon. It was now evening and an appointment was made for the following day, when another fruitless effort was made. The extraordinary character of the incident being now apparent, it was fully set forth in the newspapers, which announced that a few days later the lad was to be operated on and the stone removed. The time arrived, surgeon, specialist, assistants, as well as a reporter of a daily paper, were assembled. The boy was etherized, and a protracted struggle for the possession of the pebble terminated unsuccessfully. The papers assured the now somewhat interested public that the stone was not doing much harm anyway, and would be left to work its own way out. According to the statement of the boy's mother and physician, it may be added that the chip of granite was visible in the ear until after this last operation, which was under ether and chiefly conducted with forceps and the light of the heavens; all of which history is thus briefly recited, not to discredit anyone's contention with an unaccustomed problem, but to show that extraction of the foreign body became a matter of difficulty; that the means successfully employed may therefore be of some value in like cases; and incidentally, that there occurred that which is always liable to happen when one not habitually using the head-mirror seeks to remove with forceps a sharp-pointed body from the auditory canal of an anæsthetized patient.

Two days afterward, on the ninth day after his unlucky bath, the boy was brought to me by his family physician. He made little complaint, although he had been restless and in some distress at night. A bloody discharge came from the auditory canal, which was swollen, leaving room only for the insertion of the probe. After cleansing and brief inspection of the ear, the lad was etherized upon a table in a dark room under a Mackenzie condenser; no foreign body could be recognized by the probe, much less by the illumination of the head-mirror. At the extremity of the canal a rough surface was felt with the probe, but so tense were the tissues and such the swelling that it was impossible to distinguish between the supposed pebble and a denuded osseous wall of the tympanum. This rough surface was so deep in the bony canal that it appeared certain that mere detachment of the auricle would not facilitate extraction of a foreign body, if present. Chiselling of the posterior wall for purposes essentially diagnostic did not seem attractive, while the writer recalled a case narrated by Pilcher, quoted by Hartmann, in which the surgeons of a London hospital looked in vain for a nail supposed to have entered the ear, and found, two days after operating, at the autopsy, that there was no foreign body at all.

Thinking that if sufficient power could be applied, the tissues other than osseous, those of the cartilaginous canal, and the semi-polypoid occluding the bony, might be compressed and the passage dilated, making it at least as accessible as after detachment of the auricle and without the annoying hemorrhage, I introduced a bivalve speculum as deeply as possible, separating the blades by turning the set screw with strong pliers. Removing the speculum, a Woakes nasal dilator was substituted and expanded *ad maximum*. After a few efforts with these instruments it became possible to recognize the existence of a foreign body, when the hook was passed above it and extraction accomplished without further delay.

The stone proved to be a fragment of granite, with sharp angles and points, one centimetre long, and weighed one-third of a gramme. The patient was dismissed, with directions to keep the ear clean with a weak saline solution. Inspection a week after showed a large perforation in the anterior-inferior quadrant of the membrana tympani, giving a loud whistle on Valsalva's experiment. The perforation soon closed and the hearing power, much impaired, is gradually increasing.

To those who work constantly with the head-mirror this case possesses little interest, except in the suggestion of forcible dilatation of the dilatable or compressible tissues of the auditory canal as a substitute for detachment of the auricle. Every physician, however, is liable to be called upon to remove a foreign body from the ear, and my experience just narrated warrants a repetition of observations, however trite.

1. With the syringe, every foreign body can be removed that is not impacted, *i.e.*, that has not been forcibly driven into the ear or that has not swollen after insertion. Like all other instruments, the syringe can be more skilfully used under the guidance of the head-mirror, but failure will rarely occur in absence of artificial illumination, provided care be taken not to drive in the foreign body with the point of the syringe, and the stream of water is forcibly directed over or under the obstruction. It should not be necessary to add that the little glass affairs of the drug-stores are not referred to in speaking of ear-syringes.

2. Forceps are unsafe and should only be used when the foreign body projects externally and is readily grasped.

3. The hook is essential after a foreign body is impacted, as by unskilful efforts to extract with forceps. The hook is unsafe in the hands of one unaccustomed to the use of the head-mirror.

4. Forcible dilatation of the cartilaginous meatus, with compression of the swollen tissues obstructing the bony canal, affords greater advantage than is secured by detachment of the auricle without chiselling of the posterior wall. It is easier, bloodless, and involves far less traumatism.

THE TREATMENT OF GONORRHŒA.

By JOHN E. WEAVER, M.D.,

ROCHESTER, N. Y.

Dr. James Porter Fiske, of New York, has given, in the Record of August 26th, a valuable treatment for gonorrhœa; but I will give one at least two points better, and that I firmly believe cannot be improved upon. 1, Instead of salt water I always prescribe clear water, as hot as can be borne, because clear water is a great germicide; 2, then I order my patient to use the injection each time after urinating, when there is little if any danger of there being gonococci present to be carried backward; 3, I order from one to three pints of the water used each time, *i.e.*, until the soreness is gone at the first injection, and about the same amount at each subsequent injection. Old practitioners will be incredulous of my claim that the soreness will disappear with one injection. I simply say test it and be convinced. Internally I give a compressed tablet made by Fraser, of New York, composed of:

R. Cubeb. pulv.	gr. j. ½
Copaiba, solid	gr. j.
Ferri sulph. exsic.	gr. ½
Ol. santali	gr. ½
Ol. gaulther.	gr. 1/10
Terebinth. laricina	gr. ½

Every three or four hours.

In the rare cases where a slight discharge remains after all acute symptoms have disappeared, due to a previous attack, taking cold, unfaithfulness to treatment and the like, injections following urination for a few days of two or three small syringefuls of fluid hydrastis (non-alcoholic extract with glycerine), ʒ j. to a pint of water, completes the cure. Cases thoroughly treated on this plan last only from a week to ten days. Give the customary precautions in regard to drink and diet.

PERSISTENT SINGULTUS RELIEVED BY LAVAGE OF STOMACH.

By P. C. COLEMAN, M.D.,

COLORADO, TEX.

The case reported in Medical Record, August 19th, by Dr. Gallant recalls a similar one coming under my observation recently, and relieved by the same means.

In consultation with two other physicians, who had been in attendance for several days, I saw patient B——, aged seventy years, but remarkably well preserved for one of his age, and had been doing manual labor regularly up to the time he was taken with hiccoughing.

The various household remedies were tried without relief, when, after several days, the physicians were called. They had used faithfully the drugs usually given in this condition—musk, ether, bromides, chloral, opium, etc.—without even temporary relief. Hiccoughing continued under profound narcotism, and when I saw the patient at expiration of ninth day he was thoroughly exhausted, and oblivious to all surroundings.

It was found upon examination that the bladder was very much distended; I introduced a catheter and drew off a large quantity of highly colored urine, when immediately hiccoughing stopped, patient resting quietly for eight or ten hours, when hiccough returned.

Tongue was covered with a very thick, spongy coat, and as dry as a bone. This fact, taken in consideration with the treatment which had been used without relief, led me to conclude that the case had its origin in the stomach.

I had recently read in some journal, where, after all other means had failed, a case was relieved by thoroughly washing out the stomach.

A stomach-tube was attached to the Allen Surgical Pump, and stomach thoroughly irrigated with warm water.

Stomach contained no food, but a quantity of dark, tenacious mucus, with patches of separated mucous membrane, some of them as large as a finger-nail, and very much thickened. Hiccoughing did not return, and patient recovered his usual health.

Dr. Gallant states that in looking over the recent literature he could find no mention of lavage in treatment of singultus, but it seemed especially fitting in cases of gastric origin.

The history of the only three cases coming under my knowledge in which lavage had been used, namely, the doctor's case, mine, and the one referred to, would seem to sustain his suggestion.

CAMPHORATED CARBOLIC ACID.

By D. E. ENGLISH, M.D.,

MILLBURN, N. J.

Doctor S. W. S. Toms's interesting article in the Medical Record for August 19, 1893, I can quite agree with. For the last four years I have been using a preparation of camphor and carbolic acid, under the name of Carbolated Camphor, made as follows: Liquefied carbolic acid, one part by weight; gum camphor, three parts by weight. When these are put together in a bottle, the result, after a short time, is a smooth, transparent, oily liquid, almost colorless when first made, changing with age to a light pink as carbolic acid does, having the odor of camphor, a burning taste when put upon the tongue, and a specific gravity of about 0.990 compared with water. This preparation is not a chemical union but a liquefaction similar to that which takes place when chloral and camphor are mixed and there is a slight excess of camphor, which may be found in the form of a few minute crystals adhering to the bottom and sides of the bottle. It remains unchanged for an indefinite time. It mixes freely with olive-oil and vaseline, and dissolves iodoform in the proportion of one to twelve, completely disguising the odor of the iodoform. It dissolves freely in alcohol, but will not mix with water or glycerine. It can be applied freely to the skin or raw surfaces without fear of cauterizing or of causing any more pain than a one-to-sixty solution of carbolic acid causes. I have used it externally, undiluted, as a general antiseptic and surgical dressing, simply saturating a piece of muslin with it and laying it over the wound or sore. The outer dressings may be taken off every day and the piece of muslin wet with the carbolated camphor without being removed, and the wound thus kept sweet and clean with very little trouble. I think I have aborted boils and cured carbuncle by injecting it around the site of the trouble as carbolic acid is sometimes used, and with less irritation than the latter causes. Mixed with carron-oil in the proportion of one to twenty I have used it with success in burns of the first and second degrees. As a domestic remedy for burns, scalds, boils, pimples, cuts, bites of insects, etc., it is excellent.

It also has great value as an internal remedy. I have used it in five cases of typhoid fever, all of which did well. In this disease I give ten to twelve drops in a capsule, every three hours, till the urine begins to show signs of carbolic-acid poisoning. This generally occurs on the third day, showing that more carbolic acid can be given in this form than in the pure form. The camphor, I think, also has a good effect in this disease. When the urine begins to be affected I increase the interval between the doses to four, five, or six hours, and continue giving the remedy till convalescence is well established. It must not be put into the capsule long before using or the capsule will be dissolved by it. After each dose water or diluted milk should be taken, to prevent a feeling of heat in the stomach. I have also found it very useful in many diseases of the stomach and intestine due to fermentation

or the action of microbes, especially in cases of foul eructations and bad breath due to fermenting food in the stomach. It is best given in capsules, as in mixtures or emulsions the taste is disagreeable.

Whether or not this preparation is Bufalini's camphorated carbolic acid I do not know. I first had my attention drawn to it by an item in the *New York Tribune* about four years ago. The proportions should be exactly as I have stated them, as a very little larger proportion of carbolic acid makes a very much more irritating compound.

Progress of Medical Science.

The Causative Agent in Influenza. — Since the epidemic of influenza of 1889–90, in Europe, many attempts have been made by bacteriologists to discover the causative agent of this disease. In the early months of 1890 the announcement was made by Dr. Julles (Vienna), claiming the discovery of an organism which was similar to Fränkel's pneumococcus, and which he considered to bear a causal relation to this disease. Klebs discovered organisms in the red blood-corpuscles of patients suffering from influenza; Seiffert, peculiar cocci in the sputa of patients, and M. Kirchner, a diplococcus, probably identical with Seiffert's, which he was able to produce in pure cultures. None of the above organisms can now be looked upon as bearing any causal relation to influenza. There yet remains the organism of Pfeiffer, which, having fulfilled the crucial test of the three postulates of Koch, may now be considered as the causative agent of this disease. From the sputum of patients cover slip preparations can be made, according to Pfeiffer, by staining the specimens in Löffler's methylene blue or in a weak watery solution of carbol fuchsin. In every specimen numerous influenza bacilli are to be found. These organisms are not quite as large as the bacilli of mouse-septicæmia; they are two or three times longer than broad; sometimes larger specimens are found, especially in pure cultures. After much difficulty and many failures in the production of cultures—for these organisms could not be grown on the ordinary cultivating media—Pfeiffer discovered that blood is necessary for the growth of the bacilli. Sterile blood was dropped on the surface of slanting agar tubes, and a drop of influenza sputum mixed with the blood. The organisms grew luxuriantly. In this way pure cultures have been obtained in abundance. Pfeiffer determined afterward that the hæmoglobin of the red blood-corpuscles is the substance which is necessary for their growth. The growth of the influenza bacillus on blood agar is very characteristic. Cultures of twenty-four hours' growth show very small colonies of light, transparent drops, which have a tendency to flow together only when many colonies lie in immediate contact. The influenza bacillus is ærobic, growing only in the presence of oxygen, and best at a temperature of 38° C.; at 43° C. its growth ceases, and at a temperature of 28° C. it grows badly. In drinking-water the organisms die rapidly. They are also very susceptible to the process of drying, which destroys them quickly. In the sputum of none but influenza patients could this organism be discovered. The bacilli were also found in all cases in the lungs of patients dying from this disease. Inasmuch as animals, as a rule, are immune to influenza, another difficulty arose in fulfilling the condition of inoculation. Mice, rats, guinea-pigs, rabbits, pigs, cats, and dogs were experimented on in turn, but none of these animals were found by Pfeiffer to be susceptible to this disease. To monkeys only could he transmit the disease. Injections of cultures into the lungs, through the chest-wall, as well as inoculations upon the mucous membrane of the nose of these animals, produced attacks of the influenza. From these experiments of Pfeiffer the causal relation of the influenza bacillus to the disease must be admitted, the three postulates of Koch having been fulfilled: 1. The influenza bacillus is to be found in all cases of influenza. 2. The organism cannot be found except in this disease. 3. With pure cultures the disease can be produced in susceptible animals (monkeys).

In conclusion it is interesting to note that Pfeiffer has isolated a form of pseudo-influenza bacillus which he has found in three cases in the broncho-pneumonia of diphtheritic children, and which, like the influenza bacillus, grows in cultures upon blood agar. A differential diagnosis is easily made through the difference in growth of the two organisms.—*Johns Hopkins Hospital Bulletin.*

Antiseptic Properties of Calomel and of Tobacco.— The eminent antiseptic properties of calomel have been again demonstrated by recent experimental researches instituted by Wysokowitch. They refer in part to the action of this medicament on bacteria in the midst of alimentary substrata, in part to its action on bacteria living in the human organism. Tuberculous guinea-pigs, and, with regard to intestinal disinfection, dogs, were especially experimented upon. It resulted from these investigations that calomel, even in minute doses, arrests the development of bacteria, eventually destroying them. Calomel solutions in 1 to 40,000 concentration also arrested the development of the anthrax bacillus and of the cholera vibrio. Experiments performed on the living organism had a somewhat different result. When administered by mouth to a healthy dog, calomel acts as a strong cathartic and engenders sanguinolent stools. But it fails to reduce sensibly the quantity of living bacteria present in the intestine; it is not an antiseptic in relation to the intestinal mucosa. It is probable that in the living organism there exist certain special conditions which prevent the antiseptic action of calomel (transformation of calomel into mercury sulphide). A similar result was obtained by the application of calomel to tuberculous dogs —the quantity of tubercle bacilli present in the muscles was not reduced by intra-muscular calomel injections. As to the antiseptic action of tobacco, Professor Tassinarini, in Rome, calls attention to the fact that as far back as in the seventeenth and eighteenth centuries the use of tobacco was recommended by many physicians as a prophylactic in times of epidemics. In 1842 Professor Ruef, in Strasburg, it is said, stated that all the workingmen employed in the Royal Tobacco Manufactory had remained exempt from contagious diseases. Recholier made the same observation in 1883, and Walter Cock, of Texas, in 1888, even recommended tobacco smoking as a preventive against tuberculosis. Dr. Vassili, of Naples, in 1888, experimented on a balloon in which a layer of gelatine was sprinkled with comma bacilli. As soon as the smoke from one to four cigars, according to the intensity of the tobacco, was introduced into the balloon, the micro-organisms of the gelatine were completely killed. These various experiments were imitated by Tassinarini, and he found that by tobacco smoke the comma bacilli, the bacilli of pest and of pneumonia are destroyed, or at least arrested in their development. In these experiments it was observed that the bacilli of cholera and of pneumonia were destroyed within a few minutes, the bacilli of pest offering more resistance, while the bacilli of typhoid fever were scarcely interfered with. Tassinarini also affirms that smoking delays caries of the teeth, for which reason women, it is alleged, are more afflicted with diseased teeth than men. All of these views, of course, should not be accepted as infallible without further demonstration—*Medical Review.*

The Physiology of Weariness.—In delivering the Rede Lecture at Cambridge, recently, Professor Michael Foster chose as his theme "Weariness." Those acquainted with Foster's works and the combined breadth and caution of his generalizations will know that no one could have been selected who was more likely to do justice to a subject which has a personal interest for every worker. Commencing with a simple muscular act, the lecturer analyzed the physiological phenomena of weari-

ness in such and in the higher work of mental operations. He clearly emphasized the two prime factors in the production of exhaustion—too rapid expenditure of capital or force and the accumulation of the products of activity in the working organ. After proving that "the nervous system was a candle which could not profitably be burned at both ends at once," Professor Foster went on to show that endurance depended largely upon "blood adequately pure," and that the readiness with which "the internal scavengers freed blood from the poison which the muscles (and other active organs) poured into it" was proportionate to the staying power of the worker. "The hunted hare died, not because he was choked for want of breath, not because his heart stood still, its store of energy having given out, but because a poisoned blood poisoned his brain and his whole body." The "humbler helpmates" of the active organism—that is, the nutritive, excretory, and metabolic functions of the body—were of the highest importance to the enduring activity of the higher executive mechanism. Professor Foster touched upon, but did not treat, the subject of "inertia or laziness," and we trust that he will on some future occasion afford us the benefit of his views upon this phase of the subject. That "unwillingness to stir" greatly increases the work of compulsory stirring is matter of constant observation, and the "labor of love," though greater than that of compulsion, may be borne with much less effort and with much less weariness than the latter.—*The Lancet.*

Cutaneous Excretion of Carbon Dioxide and of Water.—Schierbeck gives the results of some experiments he has made on the elimination through the skin of carbon dioxide and water at temperatures between 86° F. to 102° F. The person experimented on was placed in a box closed on all sides except that it had an opening through which the head protruded, and this was ventilated by a large Pettenkofer's apparatus (*The Lancet*). He was sometimes naked and sometimes clothed with thick woollen material. The excretion of carbon dioxide at temperatures between 29° and 33° C. amounted with very small variations to 0.35 gm. per hour, or about 8 gm. per twenty-four hours, the quantity discharged being independent of the clothing. If the temperature rose above 33° C. (92° F.) the elimination of carbon dioxide underwent a sudden increase, so that at about 33.5° C. it was doubled. It continued to augment with the further increase of temperature, but not with the same rapidity, up to 1.2 gm. per hour at 38.5° C., which corresponds to about 28 gm. (or 432 grains) in the twenty-four hours. As regards the excretion of water, this only consisted of insensible perspiration up to 33° C. (92° F.); but above that temperature it became sensible perspiration, or, in other words, sweating set in. The "critical point" was thus identical for the elimination both of carbon dioxide and of water. The discharge of water did not, however, show such a sudden increase as that of carbon dioxide, but rose more uniformly in accordance with the increasing temperature. It is therefore difficult to give any general statement showing the amount of water eliminated by the skin, since the temperature ordinarily varies within considerable limits.

Excretion of Urea in Certain Surgical Diseases and after Major Operations.—According to the Paris correspondent of *The Lancet*, at a meeting of the Académie des Sciences M. Lucas-Championnière presented a note on the above subject. He stated that for the last six years he has systematically estimated the quantity of urea passed by his patients before and after major operations. The diminution of urea is by no means pathognomonic of the existence of visceral cancer. That phenomenon is found especially where cancerous cachexia is present; when the general health is maintained the amount of urea remains about normal. A descent to a daily excretion of six, five, or even three grammes appears to M. Lucas Championnière to be more commonly met with in visceral than in other forms of cancer. Nevertheless, even in ovarian cancer, the proportion of urea passed daily may be about normal. This he regards as favorable to an operation, and he has found that by choosing his cases in accordance with this indication the mortality after ovariotomy for cancer has considerably diminished. But non malignant diseases of the ovary are frequently responsible for a fall in the quantity of urea excreted. This is particularly the case in sclero-cystic ovaritis, which, contrary to the usual opinion, is productive of serious cachexia. In the case of cachectic patients who are passing greatly diminished quantities of urea, it is advisable by rest and feeding to increase the daily urea before thinking of operating. But whatever the quantity of urea excreted before a major operation, from the first to the third day after it the proportion increases invariably to an extraordinary extent, the maximum being reached generally on the third, sometimes on the second, day. Be it noted that all M. Lucas-Championnière's operation cases are on low diet during that time. The urea is often doubled, and even trebled, in quantity. He has seen it increase from five to twenty-five grammes. In a few days the excretion falls to about normal and remains there in case of recovery. Thus in the case of a woman whose ovary, filled with small cysts, had been removed, the urea passed daily remained after recovery at twenty-five grammes, the quantity before operation having been seven, eight, and nine grammes at the maximum. A practical deduction to be drawn from these observations is the necessity of relieving the kidney thus suddenly burdened with unusual excretory work. Low diet and purgatives are then fully indicated, and our forefathers were justified in thus prescribing after serious operations. M. Lucas-Championniere terminates his communication by insisting upon the great importance of a careful estimation of urea passed both before and after major operations.

Subcutaneous Galvano-cautery.—Gilles proposes a new method of treatment under the name of interstitial galvano-cautery. The part to be cauterized is transfixed by a specially constructed needle, which is then made to carry a galvanic current of sufficient magnitude to heat it to any required degree (*The British Medical Journal*). The middle part of the needle is of platinum, while its ends are of copper or other good-conducting metal. Owing to its high resistance the platinum part becomes heated by the current, while the rest of the needle remains cool. Experiments made upon the lungs, the liver, the muscles, etc., of dogs and of rabbits show that living tissues can be destroyed subcutaneously without suppuration; patches of cicatricial tissue have been found post mortem in the sites of the operations. The skin punctures gave rise to no trouble in most of the cases related. It is not necessary to raise the temperature of the platinum to a high degree. Destruction is complete with a temperature of 100° C.; the current must be carefully regulated by a rheostat.

Perlèche.—M. Raymond recently showed to the Société Française de Dermatologie et de Syphilographie two children affected with this disease, which, it appears, is common in Paris primary schools (*The Lancet*). The affection is characterized by superficial ulceration of the commissure of the mouth; the epidermis swells and becomes white and a fissure of variable depth develops, this fissure is generally limited to the commissure, but it may extend to the cheek. The lesion is superficial and mostly heals spontaneously in a few weeks, but is very apt to return. Being very contagious, it will frequently spread as a veritable epidemic throughout a school. M. Raymond has constantly discovered in bacteriological examination the staphylococcus albus, but he opines that other micro-organisms may also produce the lesion. Diagnostic errors may be made in these cases, the affection being mistaken for herpes labialis or mucous patches. M. Fournier also remarked on the difficulty of distinguishing between perlèche and secondary manifestations of the syphilitic virus.

MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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ADDISON'S DISEASE—THE FUNCTION OF THE SUPRARENAL CAPSULES.

A GREAT deal of interest has been excited of late in the function of the so-called blood-glands, viz., the thyroids, pituitary body, and suprarenal capsules. Perhaps these last-named bodies have been relatively less studied, yet physiologists have not neglected them. M. Albanese (*Archivios Italien. di Biologie*) has found neurine in the urine of individuals suffering from Addison's disease. Starting with this observation he made some experiments on frogs, and found that these animals were four times more susceptible to injections of neurine after removal of the adrenals. He concludes that these glands have some function in destroying this substance. Abelous and Langlois have found (*Compt. Rend. de la Société de Biol.*) that destruction of the adrenals in guinea-pigs, if complete, caused death by lowering of temperature and inanition. In their muscles was found a toxic substance that had a depressing effect on healthy animals. After grafting the glands into healthy rabbits, destruction of the normally situated organs did not cause death. Supino (*Archivios Italien. di Biologie*) found that removal of the adrenals in rabbits did not cause death. The blood-serum of the acapsuled animals produced, however, a paralyzing effect on frogs.

In this country, Dr. William G. Thompson has recently studied the subject of the functions of the adrenals ("Transactions of the Association of American Physicians," 1893) in connection with the pathology of Addison's disease. Adding to the exhaustive article on this latter subject by Lewin, Dr. Thompson finds that the number of cases reported up to date is seven hundred and fifty-seven. He himself reports six cases, three of them with autopsies. Dr. Thompson collects much evidence to show that in Addison's disease lesions of the adrenals are not always present. This lesion was absent, for example, in twelve per cent. of Lewin's six hundred and thirty cases. Besides this, one hundred and twelve cases of lesion of the adrenals without Addison's disease are collected. And, finally, a case is reported in which the disease was caused apparently by a destruction of the left splanchnic nerve through the pressure of an aneurism, the capsules being normal. The fact is admitted, however, that the adrenals are very susceptible to tuberculosis, and that Addison's disease is associated in about eighty per cent. of cases with tuberculosis.

Dr. Thompson has made a number of experiments upon animals, in order to determine the functional importance of the suprarenal capsules. He found that it was extremely difficult to remove them without causing serious surgical lesions. Hence he destroyed them with the cautery. Animals thus treated showed no bad after-symptoms whatever. He also found that injections of glycerine and aqueous extracts of the glands had absolutely no effect upon healthy animals. In this respect his experience is directly contrary to that of other observers. He comes to the conclusion that Addison's disease is not due to a primary lesion of the adrenals, but is more probably the result of irritation and disease of the abdominal sympathetic nerves and their ganglia.

The evidence for this conclusion is certainly very strong. On the other hand, it may be suggested that in many cases in which the adrenals were reported healthy, careful examinations were not made. Dr. Welch is authority for the statement that it is sometimes very hard to find the bacilli of tuberculosis in these organs, even though they are present. Furthermore, it is asserted by Tissoni that if animals with adrenals are kept long enough they will eventually develop pigmentation. Finally, there is, we believe, no experimental and very little pathological evidence that injury or disease of the sympathetic nerves will cause pigmentation. We feel inclined ourselves, despite the strong case made out by Dr. Thompson, to consider Addison's disease an adrenal tuberculosis. The question, however, needs further study, and we trust that in future, as Dr. Thompson suggests, a more thorough examination of the nervous system will be made in all cases of Addison's disease.

THE MALE NURSE.

WE have received from a correspondent a very pathetic account of his experiences with male nurses, trained and otherwise. The impression we gather is that all male nurses are bad, but that some are worse than others. It seems as if there were something in the character of the male nurse's work which circumscribes the intelligence, stunts the morals, and depraves the habits. According to the presentment furnished us, the most serious evils of his character are untrustworthiness and intemperateness, while the minor, yet very constant features, are expensiveness and untidy habits. The training schools for women have undoubtedly supplied to suffering humanity a class of useful workers who have admirably supplemented the physician and done a vast amount of good.

The male training-schools are as yet few, and it is too soon to say what they will accomplish. So far, it has been asserted, all the good graduates want to be doctors, while the rest add to the disrepute of their class. We do not wish to deny that there are good male nurses; we have had the pleasure of knowing some and have heard of others. We are aware, too, that the male nurse leads a life which is full of temptations and of alternate hard work and idleness, luxury and austerity. A person who is liberally paid for two months and idle for three, must possess much self-restraint in order to live soberly and correctly all the time. The most serious difficulty, however, in attempting a solution of the trained-nurse question is this: the qualifications of the nurse call, or rather are supposed to call, for a higher grade of intelligence

and education than the work and pay justifies. A man of the same educational and social status as a female trained nurse wants twice as much pay; his work does not justify this and the supply falls below the demand. We fear that the only present means of helping the matter is to select a simpler kind of material. The most essential thing in a nurse is trustworthiness, and to this we must have a fair degree of intelligence. The less education the better in the present stage of the matter.

THE STORY OF A MEDICAL COLLEGE.

The varied experiences of a medical college are told in an interesting and ingenuous manner by the trustees of one of the minor institutions of this city. The tale is published in a circular which accompanies the annual catalogue and asks for patronage and help. The college, it says, "has passed through varied stages of management, experience, and history. At its inception it was favored and controlled by politicians, whose interest survived until their discovery that a medical college was not an effective political machine. It then passed to those who conducted it as a mere money getting concern for themselves, regardless of its reputation or future, and when it no longer served their purposes the struggle began between its alumni, who sought to make it the college it should be, and those who saw in the institution a means of advertising for themselves and their productions. The latter were dominant for a time, but steadily their grasp was loosened, and a few years ago the alumni came into full management. The struggle, which before was for control, then became one for existence, but year by year the college has advanced and strengthened, not in wealth and material substance, but in position, in public esteem, in the confidence of the profession and in good results."

Here is a rich variety of corporate experience: an era of politics, an era of commercialism, an era of ill-repute, ending, we trust happily, in an era of honest educational endeavor. The story is instructive in that it tells us that a medical college is not a good political machine nor a fruitful commercial industry. As a sound educational institution alone does it seem to gain support.

APOCODEINE.

Apocodeine is a drug of which our text-books say nothing, yet it is one whose value, according to Dr. M. Guinard (*Bulletin Générale de la Thérapeutique*) is very great: In 1891 Professor Arloing stated as the result of his experiments that apocodeine was an emetic and had properties resembling those of apomorphine. Dr. William Murrell, in the same year, is reported to have found it to act as an expectorant in doses about double those of apomorphine. Dr. Guinard, however, after a number of experiments comes to the conclusion that it is not an emetic, but possesses soporific powers like those of codeine and morphine. Given in large doses, viz., gr. $\frac{1}{2}$ per pound of animal, hypodermically, it causes violent nervous excitement and convulsions. It is not very toxic, however, and in doses of gr $\frac{1}{4}$ per pound it has calmative effects Professor Fröhner (*Monats. f. prakt. Thierheilk.*) has also found that it is not an emetic.

M. Guinard is of opinion that codeine is not a very safe drug, and cites in support of this view the authority of M. Laborde. This gentleman states that codeine ought to be employed with extreme caution on account of its insidious toxic action. According to Guinard, apocodeine acts more upon glandular secretion than does codeine, it produces a quieter and more restful sleep, and does not, like codeine, have unpleasant effects upon the vascular apparatus. Neither has it so much of the convulsive properties. It is, in fine, not so toxic, yet it is more hypnotic.

From all these facts, based mainly, it must be said, upon experiments with animals, Guinard gives to apocodeine a much greater field of usefulness than to codeine. Unfortunately the drug is at present altogether too expensive for every-day use. If it were not for this fact Dr. Guinard would strongly recommend its use. We regret that the experimenter's funds did not allow him to make further practical tests. For if there is a drug which is really better than one so useful as codeine, humanity must have it.

INVESTIGATING THE CORONER SYSTEM.

The medical profession will experience keen satisfaction in finding that the coroners' office and the coroner system of this city are being investigated and their shortcomings brought to the public's attention. That which the most earnest and experienced members of the medical and legal profession could not do seems to have been accomplished in a day by "Bowery Annie." The tale runs that the direct cause of the present investigation was a postal card which Emanuel W. Bloomingdale, foreman of the Grand Jury, received from Frances Weyland, who is known in the vicinity of Chatham Square as "Bowery Annie." The writer complained that she had been a prisoner in the House of Detention since July 8th last, awaiting an opportunity to testify in the case against Samuel Mills, and that although two grand juries had met since that time, no indictment had been found against Mills. Miss Weyland ended her complaint with the query:

"How long do you propose to keep me a prisoner here, without proper clothing, through no fault of my own?"

The communication surprised Foreman Bloomingdale, and he sent for the District-Attorney, who immediately began an investigation. The outcome has, so far, been to show the defects and evils of the coroner's system in a very striking light.

One of the daily papers has put the matter very justly. It is generally recognized, says the *Herald*, in the city that the present coroners are no worse than their predecessors, and that to press the investigation against individuals will do little good. The system is to blame, a system that lodges in the hands of untrained men extensive judicial powers and provides a grotesque jury system for purposes that could be better served by a single qualified official. Attention has also been called again and again to the fact that under the present tyrannical system of local politics a coroner is not always in a position to remove his subordinates without the consent of "the boss." The coroners' office is simply a political bureau, and the fitness of a candidate for coroner plays no part in his nomination.

The Coroners' Court has a degraded status in the pub-

lic estimation, and politicians regard it as a place of no consequence except for what there is in it in the way of salary and unofficial perquisites.

And the worst part of it all is the jury system. The coroners' messengers, who are generally political heelers of limited education and no special capacity, have entire charge of the work of selecting juries. When the coroner wants a jury he gives his messenger a lot of blank subpœnas and sends him out to scour the neighborhood for jurors. The messenger can summon whoever he pleases. There is no check on him whatever. None of the coroners deny this. It is the common practice, and has been for many years. The value of a verdict rendered by such a jury, and the probability of getting just results out of such a system, can be easily estimated.

But the coroner is provided for in the State constitution, and to make a change necessitates an amendment of the constitution. Fortunately, delegates to a constitutional convention are about to be elected, and it is believed that the long-needed reform will be effected.

GOVERNOR HOGG AND THE "BOO!!"

The Texas Health Journal says editorially: "We give the following, clipped from the *Dallas News*, in evidence:

"'GAINESVILLE, TEX., August 4th.—William Parnell, confined in the county jail for insanity, was found dead in his cell this morning. Parnell was arrested on the streets here about six months ago in a wild and almost uncontrollable condition, but after a few days' confinement he become docile and was carried to the county farm. Last Monday he became frantic and tried to kill everybody in sight. He was brought back and lodged in jail, refusing to eat anything until yesterday, when he ate a light dinner. Parnell was afflicted with a loathsome disease, but this fact was not known to the officers until it was discovered at the inquest held by Justice Hill today. One ear, his eyes, and a portion of one hand had been eaten away by rats when he was found. He was buried in Potter's Field.'"

The Journal adds: "That a human being, insane for six months, should be kept on the poor farm and in jail, and finally die, without a diagnosis being made, and be eaten up by rats, is a foul blot upon the fair name of Texas and a disgrace to any civilized people. The cause for this inhuman treatment is traceable directly to the refusal of the Governor to permit the additional buildings to the insane asylums of the State, after the appropriations for the same had been allowed by the Legislature. The blood of the insane people will be upon Governor Hogg, who refused them a home by vetoing the appropriation after the adjournment of the Legislature. And yet some good people think Hogg a good man. Boo!!"

We trust that the *Dallas News* exaggerates a little. Nothing, however, could exaggerate or increase the directness, simplicity, and force of the terminal editorial comment upon the Texas Governor. When Hogg finds that the *Health Journal* has cried "Boo!!" he will, we are sure, begin to look around a bit, and, having sized himself up, he will see that he and the Texas insane asylums need attention. There is a mighty power in ejaculatory language. Sin and vice, neglect and cruelty, are not much affected by the propositions of logic, but they shrink away into darkness at the sound of an apt imprecation. Why should not Texas insane asylums be reformed by a simple "Boo!!"?

THE DOCTOR AND HIS DUTY.

OUR interesting and progressive contemporary *The Medical News* is a little impatient with the faults of this imperfect world, from orthœpy to sanitation. It spells iodide without the "e," and it wants medical societies and congresses to do less "scientific work" and more preventive medicine. It deplores the fact, as we all do, that in Philadelphia there occur every year two thousand unnecessary deaths. It wants purer milk and fewer quacks and less phthisis. We extend our sympathies to our contemporary, but beg that some patience be exercised toward the backwardness of humankind, particularly the medical men. The business of the physician, after all, is that of studying and treating disease and alleviating suffering. The doctor cannot be also a professional sanitarian. He has his work to do, and he does not owe it to society to turn his energies into unremunerative and thankless channels. When society has learned that it is worth its while to prevent disease and makes work in this line an object of commercial value as well as of philanthropic ambition, then the doctor will be very much more interested in sewage and CO_2. Society is learning a little more of its obligations every year. Meanwhile the doctor is most concerned in how to treat phthisis and typhoid and diphtheria; and it is very proper that he should write about these subjects, experiment upon them, and contribute scientific articles which bear upon his daily work. The subject of drains, cesspools, canned food, wall-papers, quarantine, and the hygienic life belong to another specialty.

THE RESPONSIBILITY OF MEDICAL EDITORS.

THERE is no disposition on our part to put forth a claim of superiority in proof-reading, or in powers of detecting error, or to suggest that they never creep into the MEDICAL RECORD. Our attention has, however, so often of late been called to mistakes in the pages of some of our exchanges, that the responsibility of medical editors who permit them becomes a matter of some importance. The metric system has not yet been long enough in general use, and has too recently been adopted in the medical schools, not to expect occasional errors from its employment in prescription writing. It is because of this very lack of knowledge on the part of many practitioners that the journalist should exercise the greater care not to print anything that might be copied and prescribed to the injury of the patient. The other day we read that fifty centigrammes of corrosive sublimate were to be given hypodermically. Now, a centigramme sounds like a small amount, but fifty of them make five decigrammes, and five decigrammes are equal to half a gramme, and half a gramme is nearly eight grains, and eight grains is a large dose—even of corrosive sublimate; and we have seen equally heroic doses of stronger remedies advocated in type.

When we look at the other side of the question, much that is ludicrous confronts us. To give a single instance of many recent ones in point, a journal advises its readers to inject into the bladder from one to six centigrammes of a

solution of iodoform for cystitis. Looking up the original article, we find that cubic centimetres was what the author wrote.

Now, one centigramme of mild fluid wouldn't work any injury in a bladder, nor does it do any harm if readers are informed that experiments have been carried out upon sea-pigs—as one man translates *meerschwein*. It is also not a very serious matter if readers are informed of the benefits to be derived from applying "warm water in which a little washing water has been dissolved," or if a surgeon writes that he "ceased the artery with forceps," and the printer prints it so, when the evident intention was to indicate that the artery was seized; but when the busy practitioner is informed that he can order eight decigrammes of atropia dissolved in twenty grammes of water, and give this in increasing doses to children with enuresis, the question comes up whether the scribe or the prescriber should be held responsible for results.

News of the Week.

The Small-pox Case and the Vanderbilt Clinic.—Professor George Henry Fox writes: "In your last issue occurs a repetition of the story that two young physicians, who were pupils at the Vanderbilt Clinic, were stricken with small-pox as a result of a clinical lecture on a supposed case of varicella. The facts are as follows: A case of small-pox came to the Skin Department of the Vanderbilt Clinic on September 4th. Two competent assistants were in charge. In accordance with printed rules one took the patient over to Roosevelt Hospital, believing the case to be one of small-pox. Had the diagnosis of chicken-pox been made the patient would have been prescribed for then and there as usual. Unfortunately one of about four doctors who saw the case at the Vanderbilt Clinic, and a house-physician who examined the case at Roosevelt, contracted the disease. But they were not pupils, there was no clinic held, and the lecturers of the Skin Department were a thousand miles away."

[We give place to this correction with pleasure, and are glad to hear that neither the professors nor clinic are to blame in the premises.—Ed.]

Calendar of Discovery of Instruments of Precision.—The stethoscope, in 1816, by Laennec; the clinical thermometer (perfected), in 1850; the ophthalmoscope, in 1851, by Helmholtz; the laryngoscope, in 1851, by Avery; the sphygmograph, in 1863, by Marey.

Passage of a Thermometer through the Alimentary Canal.—The swallowing of a clinical thermometer by an insane patient at Besançon, recently, was not without its usefulness. The thermometer, a self-registering one, was entirely of glass and 113 mm. long. No disturbance was noticed, and nine days later it was passed at the anus. The scale registered a maximum temperature of 38.7° Centigrade, but a subsequent verification of the instrument reduced this to 38.1°. The axillary temperature, which had been taken twice a day during the passage of the thermometer, was never higher than 37.2° Centigrade.

Bequests to Charities.—By the will of the late Hamilton Fish, St. Luke's Hospital receives $5,000, and Bellevue Hospital Training School for Nurses, $2,000.

The Hospital Accommodations of our Great Cities.—New York has 11,000 hospital beds; Philadelphia, 6,391; Chicago, 4,684; Cincinnati, 3,000; St. Louis, 2,086; Brooklyn, 2,000; Buffalo, 1,025; Denver, 961; St. Joseph, 849; Detroit, 672; Milwaukee, 667; Omaha, 617; St. Paul, 522; Kansas City, 516; Albany, 447; and Minneapolis, 325.

The Number of Journals on medical and closely allied topics, as shown by the *Index Medicus*, is 1,119.

The Crowning Glory of the modern surgeon is to have a proprietary antiseptic named after him.

Cleveland, O., has two medical colleges, viz., the Medical Department of Western Reserve University and the Medical Department of Wooster University. Recently a cyclone has been toying with both these institutions and there have been resignations and appointments in such number and rapid sequence that we cannot pretend to say where these institutions are now at. The atmosphere is clearing, however, and the *Medical Gazette* predicts a prosperous and useful career for all parties.

Imported Beer.—*The Lancet* analyst finds salicylic acid in a very popular brand of imported beer. The question is suggested whether all imported bottled beers do not contain some of this drug.

The Death of Surgeon-Major Parke is announced. Dr. Parke was best known as surgeon to the Stanley expedition. He was only thirty-five years old.

Antisepticism and Edinburgh Surgery.—Dr. George Emerson Brewer writes a letter to the New York Medical Record "On Medical Study in Edinburgh." The criticism throughout is couched in most kindly and complimentary terms, with one exception. It is alleged that "with one or, possibly, two exceptions the surgeons of Edinburgh utterly fail to appreciate the advantages to be gained by the application of aseptic methods of wound treatment, now so generally practised by surgeons throughout the civilized world, or if they appreciate the advantages they fail to give their patients the benefit of them." He subsequently goes with some detail into the alleged want of care in excluding sepsis on the part of the surgeon, the nurses, or the assistants. This is a serious charge to bring against a school in which Sir Joseph Lister spent some years in developing the antiseptic system, which he first adopted in Glasgow. We mention the letter because it is important that such statements should not be allowed to pass unnoticed, and especially without the attention of those concerned being called to the matter.—*The Lancet.*

Death Caused by Lightning in France.—Statistics are before us, according to which the average number of deaths caused by lightning in France, between 1835 and 1883, amounted to 100 annually. From one year to another, however, the number of victims is very variable. In 1874, for example, there were as many as 178, while in 1843 there were only 48. The number of those struck, but not fatally, is about five times greater on an average than those killed outright.—*The Lancet.*

West Virginia Medical Society.—Officers for 1893: *President*, Dr. R. W. Hazlett, of Wheeling; *Secretary*, Dr. D. Mayer, of Charleston. Berkeley Springs will be the next place of meeting.

The Board of Medical Examiners of the State of Washington have done away with the practice of issuing temporary licenses to physicians coming to the State during the time between the regular meetings of the board. It has been found that they are not legal documents, and that the Board has no authority to issue permits to practise to anyone who has not first passed the required examination. Examinations are held on the first Monday in January and of July. The coming meeting will be held in Seattle. The Secretary of the Board, Dr. Howard Keylor, of Walla Walla, will give any information desired relative to the time and place of meetings, requirements, etc.

The Naval Post-graduate School at Brooklyn.—The following-named officers have been appointed to have charge of the new school of instruction for surgeons at the Naval Laboratory at Brooklyn: Medical Director J. H. Clark, President; Medical Inspector C. H. White, and Surgeons J. L. Neilson and M. F. Gates. The latter will serve as recorder. The school opened about August 1st, beginning with a class of two scholars, who had recently entered the naval service. The course of instruction will continue three months or longer. The following will be among the subjects of study: Chemistry, hygiene, microscopy, bacteriology, ventilation, life-saving, anthropology, and bedside work. The students will have opportunities to visit different naval hospitals and view practically the medical conditions of naval life, hospital establishments on shore and on shipboard, and the causes of diseases among sailors.

Dr. Frank E. Waxham, of Chicago, has been elected to the Chair of Laryngology and Clinical Medicine in the Gross Medical College of Denver.

The Protestant Hospital Association of Duluth, Minn., capital $50,000, has been incorporated.

Denver and its Diseases.—Denver, Col., has about one hundred and twenty thousand inhabitants and four hundred doctors, or one to every three hundred persons. The diseases that prevail there differ somewhat from those prevalent in Eastern communities; typhoid fever is at present of quite rare occurrence, having been practically eradicated by the sanitary measures inaugurated two years ago by the lamented Dr. Henry K. Steele; acute rheumatism is of infrequent occurrence; the diarrhœal diseases of children are seldom observed, except to a very limited extent in July and August; diphtheria and scarlet fever are slightly less prevalent than in other communities and decidedly less fatal. On the other hand, tubercular diseases are extremely common, the patients, of course, with few exceptions, being persons who come to this region from other parts of the country on account of lung disease. A fair estimate of the population of Denver shows that fully twenty-five per cent. of the people living here came on account of consumption in themselves or members of their families. The number of cases of cured or retarded consumption is enormous; at least ten physicians residing within two blocks of the writer were formerly consumptive, but are now in comparatively good health and engaged in active practice. Surgical practice in Denver is remarkable for the small number of acute cases—gunshot and stab wounds excepted—a deficiency which is readily explained by the absence of manufacturing industries, by the level surface of the country, the mild winters and consequent absence of icy streets, and by the light traffic on railroads and ample space and trackage in railroad yards. These favorable conditions are most unusual in large communities, and their existence here results in a wonderful immunity from accidents and surgical emergencies.—*Denver Medical Times.*

Increase of the Itch.—Dr. H. W. Stellwagon calls attention (*Medical News*) to the unpleasant fact that scabies is increasing in frequency in this country. This fact was noted, so far as Boston is concerned, three years ago by Dr. J. C. White. The disease has increased in frequency from 0.9 per cent. of all skin cases, in 1890, to 5.39 per cent. in 1891. It is most prevalent apparently in Philadelphia, a town whose increasing motor restlessness of late years may be in a measure accounted for by this interesting dermatological fact. After Philadelphia come Boston (7.38 per cent.), New York (6.36 per cent.), Baltimore (4.61 per cent.), Chicago (3.53 per cent.), and St. Louis (2.88 per cent.). Evidently the *acarus* is following the star of empire westward but slowly. It must be humiliating to Chicago to find itself so near the foot of the list. The increase of scabies is attributed by Dr. Stellwagon to unclean immigration.

Gift to a Hospital.—St. Luke's Hospital, Detroit, will receive $200,000 as a bequest from the late Samuel B. Coyle of that city.

Professor Helmholtz.—Professor Knapp has invited Professor Helmholtz to address the students of the College of Physicians and Surgeons on Tuesday, October 3d, at 3 P.M., in the upper lecture room of the college. Members of the profession who may desire to see and hear this distinguished man will be cordially welcomed.

Obituary.

WALTER VOUGHT, M.D.,

NEW YORK.

Dr. Walter Vought died at the New York Hospital, of typhoid fever, after an illness of five weeks, on Sunday, September 24th. The disease had taken a severe course from the outset, and toward the close it was complicated by pneumonia.

Dr. Vought was thirty-one years of age, and had had great success for a man of his years. He was graduated from the Yale Sheffield Scientific School in 1882, and from the College of Physicians and Surgeons in 1885. He served as an interne on the Medical Division of New York Hospital and completed his education in Heidelberg and Vienna. On commencing practice in this city, at 12 West Tenth Street, he connected himself with the Medical Department of the Vanderbilt Clinic, and at the time of his death he was one of the most active and valuable assistants there. He was also for a year Chief of Clinic in the Nervous Department, a position which his skill in organization and his ability as a keen diagnostician enabled him to fill in a most admirable manner. Dr. Vought was a most earnest and faithful worker, eager and enthusiastic in his profession, with great powers of concentration and quick decision, and that ready tact which insures success. His reputation was already attained when he was cut off in his prime.

He had at first intended to confine his work to the specialty of nervous diseases, but finding this too narrow he abandoned this plan and preferred the variety afforded by general medicine. Yet he was never superficial in his work. Few men were more careful students of medical literature; few were more closely devoted to clinical

study. The practical side of medicine was always in his mind, and the devotion of his patients, both poor and rich, attested his kindness and his skill. Dr. Vought served as chief physician at Fire Island last year at the time of the cholera invasion. By his organizing genius he was able to bring order out of chaos, to control and reassure a most unruly crowd of alarmed people, to command their confidence and respect, to arrange for their proper care under very trying circumstances, and to do much to protect the public. His efforts were appreciated and publicly commended both by the Governor and the Quarantine Commission, and also by physicians who knew how hard he had to work to accomplish the proper results.

Dr. Vought made several contributions of much value to nervous diseases, and recently published a little book on cholera which has been highly commended by the medical press. As a man he was genial, agreeable, and refined, a most charming companion and a faithful friend. There are few young physicians in this city whose loss will be so widely mourned.

Society Reports.

Pan-American Medical Congress.

First Meeting, Held at Washington, D.C., September 5, 6, 7, and 8, 1893.

(Special Report to the MEDICAL RECORD.)

(Continued from p. 411.)

SECTION ON HYGIENE, CLIMATOLOGY, AND DEMOGRAPHY.

ALBERT L. GIHON, M.D., MEDICAL DIRECTOR, U. S. N., WASHINGTON, PRESIDENT, IN THE CHAIR; ENGLISH SECRETARY, PETER H. BRYCE, M.D., TORONTO, CANADA; SPANISH SECRETARY, PEDRO JOSÉ SALICRUP, M.D., NEW YORK CITY.

FIRST DAY, TUESDAY, SEPTEMBER 5TH.

On Sanitary Motes and Beams was the title of the address by MEDICAL DIRECTOR ALBERT L. GIHON.

The health of a nation is a national consideration involving international co-operation. There should be no priority nor clash of sectional interests. State lines are not respected by epidemic intruders. No State barrier can be so defensive and impenetrable that the toxiferous germ cannot pass through. The precise form of administration may be left to legislation, the indispensable requisites being that it shall be national, that it shall have parity of voice and reasoning in the national councils, that it shall have independent executive authority under the limitations common to other departments, and that it shall be entrusted to educated and experienced medical men, who alone are competent to assume its responsibilities.

He then took up preventable disease-germs, dust, and the many death-dealing agencies that daily menace public health. A bacteriologist had found no less than thirteen colonies of germs on a single bank-note. Referring to cholera, he quoted Dr. Ernest Hart, of the British Medical Association, now here, who says "Cholera can only be drunk and eaten." Air and sunshine, Dr. Gihon styled "royal germicides."

PROFESSOR CORNELIUS G. COMEGYS, of Cincinnati, O., read a paper "On the Proper Status of the Medical Profession in the Government of Nations."

In the absence of Surgeon Estrada, of Cuba, his paper, in Spanish, "On the Sanitary Organization of the Spanish Army," was read by Dr. Pedro J. Salicrup, of New York, the Spanish Secretary of the Section.

Owing to the absence of Surgeon-General Walter Wyman, U. S. Marine Hospital Service, his paper "On National Quarantine," was not read.

Later a general discussion was in order on a motion for the establishment of a State Department of Medicine. Speakers from all over the Union expressed themselves, pro and con. The desirability of national supervision was not questioned. As a result of over an hour's debate the motion gave way to an amendment, which was carried—one in harmony with Dr. Gihon's views. It was as follows:

"It is the opinion of the members of this Section that the interests of public health should be entrusted, in every country, to a Department of Public Health, national in character, having independent executive authority, managed and controlled by educated and experienced medical men."

DR. HOPKINS, of Georgia, moved that it was the duty of every State not having such, to enact laws providing for a State Board of Health. Carried. The meeting then adjourned.

SECOND DAY, WEDNESDAY, SEPTEMBER 6TH—MORNING SESSION.

The Climatology of Egypt, a paper by DR. GRANT BEY, of Cairo, Egypt, was a lengthy and highly instructive one. He referred to its earliest geological times, taking the age of the earth, as estimated by geologists, as six million years. In support of his views he quoted Sir William Dawson, of Montreal, Canada, whose examination of the earliest rocks and fossil trees—such as palms—indicated a tropical climate in that long past, a climate such as obtains in the Soudan to-day. He accounted for the fossil trees by stating that they had been buried in the earth and sand, and were glued together by silica—hence petrified trees.

The Nile, and the Blue and White Nile, were referred to. The Blue Nile in earlier ages lost itself in the sands of the old Isthmus.

He then traced the geology and climate of Egypt back some twenty thousand years, or to a time, when the waters of the Red Sea and the Mediterranean met. At that time the Nile was a mere fiord. He went back four thousand nine hundred years in the history of Egypt, considering its rain, and rainless regions as important factors in climatology. The people that hewed the Sphinx and built the Pyramids were referred to as well.

An early day sanitarian was Mena. He changed the course of the Nile, making the coastal country less malarious, and inhabitable. Irrigation he dates back three thousand five hundred years. By early foresight some of the islands of the coast were made inhabitable. He deemed embalming an admirable sanitary measure, one instituted under Pharaoh for rendering the dead harmless.

Inundations by the Nile were many. Rock hieroglyphics recorded one where its waters rose twenty-seven feet. The warm climate of Egypt in those days was favorable to the propagation of disease. Pharaoh the Third changed the climate by making a fresh water sea in the desert. A canal led the surplus waters of the Nile to a depression in the sands. This, when filled, led to a modification of the climate, profuse vegetation, and a rainfall over what had been a waste of sand and a hitherto rainless section. This went on to the time of the Romans, or A.D. 78. Where new lakes were created, it produced a new rainfall.

At the present time French, English, and American engineers are studying the Nile. This river makes the equatorial regions of Egypt inhabitable. Reclaiming the delta of the Nile was a very gradual process. The draining is still going on. The Nile is an outlet for Abyssinia and Central Africa.

The rainfall of Egypt is ten to twelve inches annually. It has its rainless regions as well as those where the rainfall fully equals that in the tropics. In A.D. 535 there was a flood. In 548 the sea broke in, destroying the towns, and again left a swampy, unhealthy shore. To-day it has a scanty population. In 1801 the sea was let in purposely, for strategical purposes, and destroyed the environment of Alexandria, and left it an unhealthy place.

The Isthmus of Suez has an influence on the climate of

Egypt. The Bitter and Suez Lakes, and the opening of the Suez Canal, have increased the rainfall of Egypt.

Dr. Grant Bey's paper was deemed so interesting that, on motion, it was accorded extra time. He concluded amid warm applause.

"The Climates of the Santa Cruz Mountains," by Dr. James Henry Clarke, of Jamaica, B. W. I., was read by title, Dr. Clarke not being present.

"Les Mesures prophylactiques contre les Epidémies," by Dr. J. B. Lacerda, Brazil, was read by title, the author not being present.

The Climate of Jamaica.—The Honorable Dr. Cecil A. Phillippo, President of the Legislative Council of Jamaica, B. W. I., read a paper on this subject. He gave the location of the island in the Caribbean—six days from New York City—and three and a half from Tampa, Fla. He outlined its coasts, foot-hills, and mountains. Its several climates and their productions were fully described. While the lowlands were purely tropical, at Newcastle, a village in the mountains, blankets were needed at night. He pictured the facility with which the inhabitants of Jamaica could change their climate in a few hours.

Xaymaca was an Indian word, meaning a Land of Wood and Water. The several seasons and temperatures were fully explained; the sanitaria and mineral springs, also.

Dr. Wolfred Nelson, of New York City, followed with a paper on the "Three Climates of Jamaica." Its coast or tropical climate, its temperate climate, and its cold climate. He referred to the old and accurate division of the climates of Jamaica by the Spanish discoverers. It was an accurate division, and, like all truths, improvement was impossible. Its desirability as a winter climate for Americans was enlarged upon, as well as its nearness to New York.

In the three climates of Jamaica the traveller for health or pleasure will find any temperature that may please him. From a coast climate of 80° to one of 54° in the mountains.

Dr. Nelson quoted Dr. Stern, of Jamaica, Dr. Lincoln and Dr. William Osler, on climates, and included Dr. Thomas L. Stedman's article in part, on "Jamaica," or that in Buck's "Reference Handbook of the Medical Sciences." Dr. Stedman has written on the mineral springs of the island, as well as all the climatic advantages it possesses.

For certain classes of selected patients, Jamaica promises to be a new Spring of Health. The rheumatic and gouty at the mineral springs will find curative waters whose fame dates back over a hundred years. Pulmonary cases will find a soft, balmy climate, where nearly every day may be spent out of doors, that is, between November and April, or the tourist season.

The beauty and grandeur of the scenery were not forgotten.

Certain it is, Americans have a new spa at their own portals, with a variety of climates. There the nervous and overworked will find rest and cure. It is a paradise for neurasthenics. Liver and kidney cases will be benefited.

Afternoon Session.

The first paper read was on the "Necessary Laws that Should be Enacted by the Several States, by which Municipal Health Authorities may be Enabled to Control Infectious Diseases." The above, with the general trend of the papers in the section, led to a lengthy and highly instructive debate on epidemics, introduction of foreign disease, etc. Dr. Shakespeare, of Philadelphia, author of the recent classic on cholera, Dr. Cyrus Edson, of New York, and Dr. Lee, of the Pennsylvania Board of Health, were among the leading speakers. The question was fully discussed in all its phases—its effects on commerce, etc.

Dr. Cyrus Edson was in favor of stopping immigration from European ports that were known to be infected. He does not believe it possible to maintain a successful quarantine against cholera. He considers the house-fly as an active agent in spreading cholera.

Dr. Albert L. Gihon, U. S. N., President of the Section, suggested that Drs. Shakespeare, Edson, and Lee be named to draft a resolution that would embody their views as well as the views of the section. The result was the following, moved by Dr. Shakespeare, seconded by Dr. Lee:

Resolved, That it is the sense of this section, that in view of the prevalence of Asiatic cholera in Europe at the present time, and the constantly increasing number of foci of infection, immigration from European countries in which cholera exists should be temporarily suspended, as this action affords, in our opinion, the only certain means of averting a threatened invasion by the disease of the countries of the American Continent.

Be it further *Resolved*, That the resolution be reported to the General Session of the Pan-American Medical Congress, with a request for its adoption and speedy transmission to the Executives of the several countries officially represented therein.

Section in Laryngology.

Third Day, Thursday, September 7th.

The Ultimate Prognosis in Neglected Adenoid Hypertrophy was the title of a paper by Dr. D. Bryson Delavan, of New York City. The question was asked, Does adenoid hypertrophy, if left to itself, disappear, leaving the vault in a normal healthy condition? Generally speaking, it does not, but remains under some pathological state, which may continue throughout the life of the patient.

1. The enlargement may not subside, and a degree of hypertrophy sufficient to cause serious injury and annoyance may continue to exist for many years.

2. The so-called "Thornwaldt's Disease" appears to be nothing more than neglected adenoid hypertrophy.

3. Disappearance of the hypertrophy may be attended with an atrophic condition of the vault of the pharynx the result of which is a pathological state detrimental to the patient and difficult to cure.

The above conditions may influence not only the locality in which they arise, but may have far-reaching and disastrous effects upon other organs. The ultimate prognosis as to the local condition, therefore, in cases of neglected adenoid hypertrophy, is unfavorable.

Dr. Price Brown, of Toronto, inquired whether there was a preponderance of adenoids in males or females, and whether heredity was or was not a factor in these cases. He himself had seen the disease more frequently in males.

Dr. Delavan thought that the sexes suffered alike and that heredity was an undoubted factor. Children inherit either adenoids or an underlying rheumatic, syphilitic, or tubercular diathesis which predispose to lymphoid hypertrophy. The disease is more common in damp and exposed regions, but may occur in dry mountainous climates.

Effects on the Vocal Organs of Improper Methods of Singing.—Dr. H. Holbrook Curtiss, of New York City, read a paper with this title, in which the various methods of vocalization were described as taught by various singing-masters at the present time. The various methods of respiration and modes of voice-production were described at length. The writer did not believe that photography of the larynx ever showed the cords in a position of normal phonation. Even the alteration in the anatomical relations of the parts produced by the simple introduction of the laryngeal mirror was sufficient to prevent the cords from taking the true physiological position required for the normal voice. The infra-costal-diaphragmatic method is the proper one for breathing. The thyroid cartilage is depressed and the trachea made more tense

from the fact that in this mode of breathing the pulmonary apices are inflated to their maximum. The proper vocal exercises will cure many of the simpler hyperæmic laryngeal conditions. They really form a sort of massage of the laryngeal muscles.

Aspergillus Mycosis of the Maxillary Sinus.—Dr. John N. Mackenzie, of Baltimore, read the paper. (See previous report of the case in *Johns Hopkins Hospital Bulletin*, November, 1892, and "Transactions of the American Laryngological Association for 1893.")

Hysterical Aphonia and Deafness was the title of a paper by the Chairman of the Section, Dr. E. Fletcher Ingalls, of Chicago. Hysterical deafness is comparatively rare. I find reports of a few cases, but have never met with it myself excepting in a single instance, a brief history of which I think will be of interest to this Congress. The case is that of a woman, aged twenty-three, and a teacher by profession, who recently came to America from Ceylon. She had been annoyed for three years by weakness of the voice, and sometimes by complete aphonia. About two years ago, while making an ocean voyage, she was greatly alarmed by a rat springing upon her. Immediately thereafter she lost the sense of hearing, and since that time has been so deaf that she could not hear ordinary conversation, and could only understand when addressed in very loud tones with the person's lips close to her ear. She had been slightly deaf before the fright, but the symptom was greatly increased immediately afterward.

When she came to see me, in the early part of July, 1893, she was still extremely nervous, and complained of dryness of the throat, inability to speak excepting in a whisper, and deafness so great as to require shouting to enable her to hear. Her general health was good; there was no history of predisposition to disease; pulse, 100; temperature, 100° F.; no cough nor expectoration; appetite fair and digestion normal. The hearing, tested by an ordinary watch, showed that no sounds whatever were appreciated even when the watch was placed in contact with the ear or temporal bones. The left membrana tympani was considerably thickened; the right normal. There was no congestion of the larynx, and the cords were well approximated on attempted phonation, but this position could not be maintained. She talked only in a whisper, but upon directing her to sound the letter *a*, while examining her larynx I found that she could easily produce loud sounds. I applied a mild astringent spray to the larynx, and a spray of menthol, five grains to the ounce, to the Eustachian tubes, through the naso-pharynx, the application being made by a long-tipped Davidson's No. 59 atomizer, which was introduced back of the palate, the spray being driven in with an air-pressure of fifteen pounds, while the nostrils were tightly held.

She was given internally berberin muriate gr. j., ext. of valerian gr. ij., and sulphate of strychnine in doses of $\frac{1}{20}$ of a gr., which I proposed to increase rapidly to $\frac{1}{10}$ or even $\frac{1}{8}$ of a grain.

Three days later it was noted that she felt something better, stating that there was a "softening" in the ears, and seven days after the first treatment her friends stated that she occasionally spoke aloud, and her hearing was improved. Strychnia was now increased to $\frac{1}{10}$ grain dose without appreciable physiological effect. Continuance of the treatment along this line, with electrical application and topical use of menthol, promise a complete cure.

Dr. Merrick, of Baltimore, thought that the length of time required to obtain the good results in Dr. Ingall's case threw doubt on the correctness of diagnosis as to the case being purely hysterical.

Dr. Curtiss, of New York, had seen deafness in hysterical aphonia, but had not suspected a relation of cause and effect between the two, but the cure of the aphonia had been followed by great relief to the deafness.

Dr. James E. Logan, of Kansas City, gave the history of a case of hysterical aphonia, with thickening of the ventricular bands. He had thought that this latter was due to the vicarious action of the bands in the act of phonation.

Dr. Curtiss thought that the ventricular bands were always thickened in hysterical aphonia, but did not believe it possible to approximate these bands by voluntary effort. He would therefore doubt their vicarious action, believing rather that the thickening caused the aphonia.

Dr. Price Brown inquired as to the possible danger of cumulative action from the dosage of strychnine given by Dr. Ingalls.

Dr. Logan stated that in his case he had seen the ventricular bands approximate on attempted phonation throughout two-thirds of their entire length.

Dr. Curtiss called attention to the fact that cumulative action of alkaloids was impossible in high febrile states.

Dr. Ingalls, in closing the discussion, gave his rules for the administration of strychnine.

Afternoon Session.

Report of Cases of Tubercular Laryngitis Treated in Colorado Springs.—Dr. S. E. Solly, of this city, read a paper with the above title. Forty-five cases showed decided evidence of tubercular laryngeal affection, among a continuous series of 250 cases of phthisis. In order to give sufficient time for results no cases have been taken of phthisis or laryngitis that were seen for the first time less than two years ago.

Among the 250 cases of phthisis there were 45 with tubercular laryngitis, twenty-eight per cent.; 25 with infiltration without ulceration and 20 with both, that is, eight per cent. The average duration of the 25 cases without ulceration, from their first symptoms up to the time of this report or death, was six years, while of 8 of these who got worse it was three years and ten months. Of the 20 cases with ulcers the average duration was three years and two months, while of 15 of them that got worse it was two years.

After taking all the laryngeal cases that deteriorated, the average duration of life was two years and seven months. Forty-eight per cent. of all the laryngeal cases improved. There was sixty-eight per cent. of improvement among the non-ulcerated cases and twenty-five per cent. among the ulcerated cases.

In considering the improvement in the throat alone, in 64.2 per cent. of the whole 45 laryngeal cases there was local permanent arrest, and besides in 5 more cases there was well-marked temporary improvement. Among the non-ulcerated alone the local improvement was sixty-eight per cent. Among the 20 ulcerated cases fifty per cent. healed and remained healed, while 3 additional cases healed temporarily. Of these 20 cases in twenty per cent. the lungs were in the last stage of tuberculosis, fifty per cent. of whom were generally improved, and in seventy-five per cent. there was local arrest of the laryngeal disease. Thirty per cent. were in the second stage of pulmonary tuberculosis, of whom 16.6 per cent. were generally improved, 66.6 per cent. having arrest of throat disease. Fifty per cent. were in the third stage as regards their lungs, and showed twenty per cent. of general improvement, while in thirty per cent. of them there was arrest of the laryngeal complication. The ulceration in thirty per cent. was found in the commissure, of whom 33.3 per cent. improved. Upon the arytenoids in forty-five per cent., with none improved. Upon the false chords in twenty per cent., none improved. Upon the epiglottis in thirty per cent., seventeen per cent. improved, and upon the true chords in fifty per cent., of whom thirty per cent. improved. In the majority the ulceration was not limited to any one of those parts. The author believes these cases would not have shown such good results, even in the Colorado climate, without careful local treatment, though it was shown that similar treatment had been skilfully applied in a low climate and had failed in most cases. As a general principle stimulation is preferred to sedation, while cleanliness is of the

utmost importance, and a variety of drugs and methods are called for and useful in their turn.

Notes of Cases of Tubercular Ulceration of the Larynx Treated by the Krause Method.—Paper by Dr. T. Morris Murray, of Washington, D. C. Statistics of results obtained by this method in Krause's practice were given and cases were reported, including tubercular ulceration occurring on the soft palate, uvula, walls of pharynx, and in the larynx.

Conclusions: Whenever lactic acid can be applied directly to the granulating surface of a tubercular ulcer the pain accompanying such ulcer is promptly relieved, and the ulcer soon heals. These results are obtained whether great debility be present or not. The relief afforded the patient by these applications warrants their use even in cases where there is no hope of prolonging life.

The Use of the Formates in Ulceration of the Pharyngeal and Laryngeal Mucous Membrane.—A paper with this title was presented from Dr. E. L. Shurly, of Detroit. He said that the caustic properties of formic acid had long been well known. He had had the acid prepared in the usual way from formic acid and glycerine, and then combined with the bases of sodium, calcium, ammonium, barium, copper, and iron. He had also prepared the iodoformates of sodium, ammonium, calcium, and iron. All were poisonous to mice in doses of from one-half to two grains when used hypodermatically. If given by the stomach the effects were the same, but more slowly manifested.

To rabbits, five to ten grains of the copper calcium and barium salts proved fatal. All the salts seemed to act as anti-toxines to the growth of pus and to the bacilli in tubercular sputa, and as well to various bacteria. The formates of sodium and ammonium seemed the least poisonous. When given to monkeys a reddened tongue, salivation, and inordinate appetite alone were noticed.

The salts of sodium, ammonium, and iron had been given to patients with lupus, sarcoma, and epithelioma; also in tubercular lesions. A slight stomatitis had occasionally occurred, but no effect on the lung process had been appreciable in the tubercular cases. The only features noted were the same as in the monkeys. The remedy had also been used in spray and by insufflation, being mixed in the latter instance with half its weight of starch. A five to ten per cent. solution of the sodium formate was useful in epithelial, tubercular, and syphilitic ulcerations. The formate of iron seemed serviceable in septic processes. No pain was caused in any of these instances though the copper preparation might occasion a slight stinging.

In the discussion arising upon the three preceding papers Dr. Mackenzie said that we were now in a position to promise our patients a cure in many of the tubercular lesions of the upper respiratory tract.

Dr. Price Brown had seen one case of tubercular infiltration and ulceration in the larynx completely healed. He used the galvano cautery at first, but later curetted, not using lactic acid but rather menthol in albolene (five to ten per cent.).

Dr. Merrick, of Baltimore, had used lactic acid faithfully, but had never seen a case heal under its employment.

Dr. H. H. Curtiss, of New York, thought that the general environment in Colorado had had much to do with the good results reported in Dr. Solly's paper. He had previously reported three cures out of four cases, but two of these had since relapsed. A following out of such cases for five years would lessen the percentage of cures. In his remaining case the left vocal cord was entirely eaten away, but a fleshy shred (probably some fibres of the thyro-arytenoid muscle) had appeared on its site and acted very well as a vibrating medium.

Dr. Delavan alluded to the fact that a case would occasionally heal without any treatment. Other cases were arrested by appropriate topical medication. Krause's and Heryng's plan of curettement with lactic acid had relieved many, and finally good results were promised by Trudeau's modified tuberculin, prepared in a way entirely different from that of Koch. The utopia for tubercular cases would be the proper climate, where the proper treatment could be systematically applied. The phlegmatic disposition of the Germans gave Krause and Heryng better results than we could obtain in this country.

Dr. Ingalls had tried sodium formate, but without any special results. Two cases had received much benefit from the application of terchloride of iodine (gr. j. to ijss. to water ℥ j.); when it came in contact with purulent matter it was decomposed and nascent iodine liberated.

In closing the discussion Dr. Solly said that the good effects of environment, in Colorado, were often nullified by the patient's homesickness and anxiety when away from friends and business. We should be thorough in our curetting of the diseased surface and follow out a "bed-rock" plan of treatment. One advantage Colorado practitioners had was that they saw their patients more often, and were more intimately acquainted with their mode of living than was the case with the patients of their Eastern confrères.

SECTION ON GYNECOLOGY AND ABDOMINAL SURGERY.

Second Day, Wednesday, September 6th—Morning Session.

The Technique of Total Extirpation of the Fibromatous Uterus, was the title of the first paper, read by Dr. George M. Edebohls, of New York. He enumerated the steps of the operation as follows: Place the patient in the lithotomy position. Thoroughly disinfect the vagina. Disinfect the uterine cavity, as far as possible in each individual case, by means of superficial curetting and irrigation with 1 to 2,000 sublimate solution. Pack the uterine cavity moderately full of sublimate gauze, 1 to 100. Pack the vagina tightly with sublimate gauze 1 to 1,000. Make no vaginal incisions; do none of the cutting from below. Now place the patient in the Trendelenburg posture. Open the abdomen above the pubis by an incision just large enough to permit of delivery of the entire tumor. Given a tumor weighing not above four kilogrammes, with healthy tubes and ovaries, proceed as follows: Eventrate the tumor. Circumscribe two peritoneal flaps by two transverse incisions of the peritoneum, one on the anterior, the other on the posterior surface of the tumor mass, each incision extending from one broad ligament across to the other. These peritoneal flaps should be large enough to easily cover the defect in the pelvic floor left after removal of the uterus. Strip the peritoneal flaps from the surface of the uterus, carrying the bladder and ureters forward, out of harm's way, with the anterior flap. Tie the uterine arteries on either side by a subperitoneal mass ligature of catgut, carried well down to, but not into, the vagina. The distention of the vagina by the gauze packing makes this an easy matter. Tie off the broad ligaments, outside of the tubes and ovaries, by two further catgut ligatures on either side. Cut out the entire uterus, tubes and ovaries, in one piece, between the ligatures. Cut short the six ligatures. Unite the peritoneal flaps by a transverse, running Lembert suture of catgut, extending from the stump of one infundibulo-pelvic ligament to that of the other, carefully applied so as to securely close the peritoneal cavity and turn all ligatures down into the vagina. Close the abdominal wound. Again place the patient in the lithotomy position. Remove the gauze packing from the vagina and apply a loose dressing of gauze in such a manner as to drain the supra-vaginal subperitoneal space. If the ovaries or tubes present evidences or suspicion of containing infectious material, tie off and remove them the first thing after opening the abdomen. If the tumor extend above the umbilicus, weighing more than about four kilogrammes, pass a rubber ligature around the cervical part, after stripping back the peritoneal flaps,

and amputate the bulk of the tumor. Cauterize the cervical canal with the Pacquelin or a tablet of corrosive sublimate, and remove the cervix in the manner described above. If multiple fibromata, or intra-ligamentary fibromata, fill the pelvis, make room by enucleating the fibromata most in the way, and proceed as above.

The technique advocated is believed to possess the following advantages: The danger of infection from the uterus or vagina is entirely avoided, or at least minimized. The uterine arteries are secured with ease and certainty. The operation is practically bloodless. The closure of the peritoneum is as perfect as it can be made, and no foreign body is left in its cavity. The after-treatment required is practically nil.

Discussion of the paper was reserved, to be taken up together with that of a similar subject which next followed.

Hysterectomy: Indications and Technique, was the title of a paper read by Dr. J. M. Baldy, of Philadelphia. He said it is not proposed to discuss in this paper the etiology or symptomatology of the various conditions for which this operation is performed. It is not always safe, in forming conclusions, to draw our inspiration from a promiscuous collection of statistics, therefore, whatever deductions are drawn will be entirely from the author's personal experience, which has reached the number of seventy-seven hysterectomies.

The indications, as taught by this experience, are absolute and relative. They are: 1, malignant degenerations; 2, fibroid tumors; 3, pelvic inflammations; 4, prolapse; 5, inversion.

The indications in malignancy are absolute, both as to the advisability of operation and as to the complete removal of the uterus. However small the number of cases cured may be, yet it is an undisputed fact that a certain proportion regain permanent good health. Should only one or two in a hundred be so fortunate, yet would the operation be justified in view of the absolutely certain end of all without it. The operation is comparatively safe. Twenty-five operations have been performed by the writer for primary cancer or sarcoma of the uterus, and of this number three have died from the operation; all three deaths were due to preventable cause, and with added experience and a more perfect technique would not be likely to occur again.

The indications for surgical treatment of fibroid tumor are relative. Surgical treatment having been once decided upon, hysterectomy is the proper procedure. Ovariotomy is excluded for the reason that it equally renders the patient sterile; it allows the tumor to remain *in situ*, with the added chance of its not producing a cure; it often leaves a uterus diseased in its cavity as well as its walls; it is as difficult as hysterectomy often; and at times is impossible. Hysterectomy, as the operation of choice, depends upon its mortality. Forty-one fibroid uteri were removed by this means, with four deaths. Three of these deaths were from preventable causes, or accidents which would not be likely to occur again.

The indications for pelvic inflammation are relative. Four such operations have been successfully performed: two subsequent to a primary ovariotomy; two primarily. Patients in whom the endometrium is badly diseased, the uterine walls infiltrated, especially with pus corpuscles, and the whole uterus enlarged, are proper subjects for their treatment.

The indications for uterine prolapse are relative, when the ordinary procedures have failed, when the patient is near, or past, the menopause, and when there is the slightest suspicion of malignancy. The operation should be performed with catgut ligatures, the stump stitched into the vaginal opening, and subsequent plastic operations performed upon the anterior and posterior vaginal walls. The operation has been performed six times, always with success.

A chronic inverted uterus should be removed wherever a short trial at taxis and elastic pressure has failed. The operation has been performed once successfully.

The methods of performing hysterectomy are abdominal, vaginal, and the combined method. The combined method is superfluous, and more dangerous than either of the other two alone.

Abdominal hysterectomy is performed by: 1, supravaginal amputation; *a*, treatment of the stump by the extra peritoneal method; *b*, dropping the stump; 2, extirpation.

Vaginal hysterectomy is performed by: 1, clamp operation; *a*, single clamps; *b*, multiple clamps; 2, ligature operation.

All cases of prolapse and inversion, all cases of malignancy sufficiently small, and very small fibroid tumors, are proper subjects for vaginal operation.

Dr. H. J. Boldt, of New York, opened the discussion upon these two papers. He stated that reports that do not make a separate class of broad ligament fibroids are not complete. Reports in which the operator varies his method are not so instructive as reports from different men, each the exponent of a particular method. Dr. Edebohls differs from Martin in one important point, in that he precedes hysterectomy by a curetting. In fibroids that are low and split the broad ligaments, we have a class that is not amenable to either of the two procedures advanced.

Dr. Carsons, of Detroit, thought an ideal operation not always practicable, and that in the interest of the patient we must occasionally use clamps and the extra-peritoneal method. He liked, after disinfecting the vagina, to cut through the mucous membrane as a preliminary step to abdominal hysterectomy.

Dr. Noble, of Philadelphia, thought the supra vaginal amputation preferable to total extirpation, because a safe method—safer, since it is a short method. He had used the bladder to cover over the cervix with good result. In seventeen cases he had removed the ovaries for small fibromata, and with one exception, where the tumor was just large enough to act as a ball-valve in the pelvis, had attained good results.

Dr. Currier considered the introduction of gauze from above as good as through the vagina. Otherwise he approved Dr. Edebohls's method. Dr. Noble's statement that the two broad ligaments that remained constituted stumps, was not correct. The Hegar operation is the best practicable in some cases of fibroids.

Dr. Marcy said he entered upon the discussion without having heard the paper, and thus was in the position of Sydney Smith, who declared he preferred criticising a book before reading it, as thus he entered upon his task entirely without prejudice. The double-lateral continuous suture is preferable to ligatures. The operation best for the life of the patient should not be spoken of as opposed to the ideal operation. The ideal operation is the life of the patient, in that it meets all the conditions that threaten.

Dr. Mcdonald would not leave any thick stump that might slough from ligature of the uterine artery. But a normal cervix needs only disinfection of its canal to render its preservation innocuous.

Dr. McMurtry, calling Dr. Maury to the chair, said that three years ago there would have been raised an objection to considering abdominal hysterectomy for fibromata a legitimate operation. Such a tumor was then spoken of as a benign growth that would disappear at the menopause. Total extirpation was after the German school of Schroeder, Martin, and their followers. We are educated in different schools, and each excels in his own method. We cannot determine beforehand the precise operation. Removal of appendages is uncertain, but it is a grand resort when impracticable to do the severe operation of hysterectomy. For, in his mind, abdominal hysterectomy is the most difficult and masterful operation in all surgery, when consideration is taken of the complications that are likely to be met.

Dr. Margaret Crosedale, of Philadelphia, related a case of fibroid, size of an orange, in which removal of appendages failed to check hemorrhage. In a second simi

lar case she had subsequently to remove uterus per vaginam to effect a cure.

Dr. Johnson had, in quite an extensive series, failed to check hemorrhage by the slighter operation, in but one case.

Dr. T. Johnson Alloways, of Montreal, also had many grievous failures to check hemorrhage by removal of the adnexa to record. He considered it always incumbent upon the operator to dilate the uterus in search of polypus as the possible source of tumor and hemorrhage, before subjecting one's patient to the more serious operation.

Dr. Edebohls, in closing, insisted that cutting through the mucous membrane from below was unnecessary, and in case, after abdominal incision and exploration hysterectomy should be abandoned, it would prove an unfortunate beginning. He claimed for his operation four original procedures — the unvariable curetting of the uterus, the hard packing of vagina, the reflecting of anterior flap of peritoneum, and with it bladder and ureters, out of the field of operation, and the closing of peritoneum below across the pelvis with the continuous Lembert suture. The instruments needed were few and simple.

Dr. Baldy, in closing, objected to being considered merely as a partisan; for, as he had employed the methods advocated by his opponents an equal number of times with them, he claimed a position to fairly judge between supra-vaginal and total hysterectomy. The shortening of the vagina that follows the latter method is an objection that we must not disregard. Dr. Edebohls confessedly takes a half-hour before he is ready for his abdominal incision. In his own last case he had removed the tumor in ten minutes, and there remained only to close the wound. The three great things to avoid were sepsis, tedious operation, and hemorrhage. Sepsis was less liable through the cervical canal than through the vagina, hemorrhage was no more likely to follow from the portion of cervix that remained, than after a trachelorrhaphy; therefore, he claimed for supravaginal hysterectomy advantage in every respect over pan-hysterectomy. As for the extra-peritoneal treatment of the stump by attaching it in the abdominal wound, it commended itself for its safety to unskilled operators, but we have heard the last of it from the specialist.

A Plea for the Early Diagnosis and Prompt Electrical Treatment of Fibroid Growths of the Uterus, was next read by Dr. G. Betton Massey, of Philadelphia, who said: The questions briefly considered in this paper are: the nature and symptoms of the early manifestations of uterine fibrosis and myomatous new-growths; the duties of the profession in making a prompt diagnosis and instituting early treatment for the condition; and a consideration of the value of the Apostoli methods in these cases results in the following conclusions: 1. The early signs of uterine fibrosis are quite similar to those of a number of more common disorders, and are consequently mistaken for them in many instances. Whenever metritis, displacements, or persistent sensations of pain and weight are found, the physician should bear in mind the possibility of the cause being an incipient fibroid development, and if found to be so, he should place the patient at once under treatment. 2. The most recent views of the etiology of fibrosis indicate that the mode of action of electricity is most likely by a stimulation of the trophic and sorbefacient functions of the uterus, rather than by an electrolytic destruction of the growth. 3. The expectant policy in dealing with fibroids is too prevalent, resulting in many cases losing the decided advantage to be derived from early treatment. 4. The early diagnosis of fibroid growths has the advantage of placing all cases within the list of those that are amenable to electrical treatment, while delay permits of some becoming unsuitable for it. 5. All forms of fibrosis and fibroid neoplasms of the uterus are suitable for electrical treatment, except those that have undergone cystic changes, or that are accompanied by purulent accumulations in the uterine adnexa.

The meeting then adjourned.

Afternoon Session.

The Results of Vaginal Hysterectomy, the first paper of the afternoon session, was read by Dr. Andrew J. McCosh, of New York, who prefaced his report with a few general remarks. Vaginal hysterectomy has proved superior to high amputation, but is not to be undertaken if bladder or broad ligaments be invaded by malignant growth. If uterus is more than twice its normal size, abdominal section is to be preferred. The appendages need not be removed unless they are diseased or prolapse. Iodoform gauze is to be left in vagina for some days. It is necessary to employ the sacral exposure of the uterus only in those cases that are best left alone.

The object of the paper is to record the personal results of the author. No new methods or instruments are proposed. All the cases of vaginal hysterectomy operated on by the author are reported and classed as (1) for cancer, (2) for prolapse.

First, for cancer. Ligatures are preferred, but clamps are used without hesitation, provided they can be applied with greater ease or safety. Silk has been employed for ligatures. All specimens were examined microscopically.

Thirteen operations are reported. No deaths. There are in perfect health, without sign of return, at end of five years, 1 patient; four years, 1 patient; two years, 1 patient; one and one-half year, 1 patient; one year, 2 patients; four months, 2 patients. There have died from return of the disease, at the end of thirty-three months, 1 patient; seven months, 1 patient. There are still alive, but with return of the cancer at the end of three years, 1 patient; one year, 1 patient. Disappeared from observation, 1 patient.

Second, for prolapsus uteri. For ordinary cases of prolapse hysterectomy is unjustifiable. Milder measures are sufficient. In certain cases, however, of complete prolapse of a very large uterus and of an enormously hypertrophied vagina, the ordinary plastic operations (perineorrhaphy and colporrhaphy) are apt to be failures as a means of permanent support. In such cases hysterectomy is a justifiable operation.

Report of five cases (four of the author's), no deaths: Complete success, 1 case; partial success, 2 cases; failure, 2 cases.

It is doubtful if we can expect perfectly satisfactory results from this operation, even when followed by a perineorrhaphy. The operation is rather tedious and bloody.

Cavernous Angioma of the Uterus Removed per Hysterectomiam Vaginalis, with Remarks upon the Method of Doing Vaginal Hysterectomy.—Dr. H. J. Boldt followed with a paper with this title. After exhibition of the specimen and an account of the case, the author proceeded. No fixed rule can be laid down, each case must be managed according to the circumstances presenting themselves at the time. We will, however, take an ordinary case, such as the one from whom the uterus presented was removed. It is immaterial whether it be malignant or non-malignant disease for which the operation is done, as far as the one feature is concerned, viz.: the closing of the wound completely and to have the broad ligament stumps entirely extra peritoneal. The portio having been grasped by vulsella and the uterus pulled down as much as possible, a transverse incision is made anteriorly and the bladder stripped off the cervix; if it cannot be completely done yet, only so much is separated as is convenient. The same course is pursued posteriorly, and the cul-de-sac of Douglas is opened. The peritoneum is now attached to the vaginal mucosa by a continuous catgut suture. The base of the parametria are next ligated and cut on either side. Should the bladder not have already been entirely separated, it will be found to be easily accomplished after severance of the base of the parametria. The broad ligaments are now

ligated in sections and cut as we proceed, taking care that the needle enters the vaginal mucosa, and after taking in its grasp as much of the broad ligament as is desired, it emerges again in the vaginal mucosa. The index-finger of either hand is used as a guide, by way of the posterior opening. After tying the ligature, the ligated portion of the broad ligament is cut. The adnexa are brought down and ligated off if possible in the same manner. It it obvious that by following this technique of introducing sutures, that our stumps are practically already secured in the vagina. The terminal ends of the stumps are now grasped with bullet forceps, and an assistant makes traction sufficient to bring them completely into the vagina, when another suture is passed on the same principle as the previous ones, enveloping all the stumps. This done on either side, the centre gap can now be closed completely, after removing the sponge or gauze tampon from the pelvic cavity, if one has been inserted to prevent the intestines from prolapsing during operation.

Full-curved sharp needles of suitable size are used, and nothing but catgut for ligatures. Silk delays convalescence too much, and it cannot be made more aseptic nor tied more securely than animal ligature. The needle-holder is also preferable without catch or spring. There is no necessity for drainage in ordinary cases, so that the practice of putting a strip of gauze into the pelvic cavity for this purpose in every instance, had better be abandoned. It is only desirable when extensive perimetrial adhesions are present. In malignant disease the operation must be done as far away as possible from the diseased structure, and sufficient vagina must also be resected if the portio is the seat of the neoplasm. Clamps should never be used if ligatures are applicable.

The operation should be done with the patient in the lithotomy position, and not in the side position.

Vaginal Hysterectomy.—The third paper upon the subject was read by Dr. E. E. Montgomery, of Philadelphia. He said: This is now an accepted operation. Under improved methods the greatly reduced mortality, with the increased immunity against relapse, renders it the effective operation in malignant disease when confined to the uterus. In uterine fibroids of small size, whether involving the cavity of the uterus or its walls, it is preferable to dilatation and enucleation for their removal. It may be done in some cases of prolapsus of the uterus, particularly when accompanied with extensive ulceration of the cervix. Its performance for pelvic inflammations demanding removal of the ovaries and tubes, may be questioned. The use of the clamps greatly expedites the operation, and saves the patient from the effects of shock resulting from a prolonged operation and long-continued anæsthesia. In 21 cases in which the writer has performed vaginal hysterectomy, 16 were done for undoubted malignant disease, in one of which there was epithelioma of the cervix and a number of fibroids in the body of the uterus; 3 for fibroids, and 2 in which the diagnosis was doubtful. In 21 cases there was 1 death from tetanus, on the fourteenth day.

At the request of the President, Dr. Kelly, of Baltimore, opened the discussion upon the three papers. He said that we are now crystallized, except in minor details, in regard to the treatment of cancer of the uterus. Prophylaxis consists in inspection of every woman three months after confinement, and then every year until she is past the menopause. Lacerations of the cervix should be repaired. Malignant growth is frequently grafted upon these hard, infiltrated cervices. We are sometimes surprised at unhoped-for results in desperate cases.

Open vagina, in the multiparæ, back to the rectum if necessary. Pass silk thread through the lips of the cervix; it acts then to close the uterine cavity, and also as a tractor. Free one side of uterus entirely first, in order that the fundus may be brought out, and the other side more deeply diseased, more widely removed. The mortality ought to be very nearly *nil*. With him, for the past year and a half it had been quite so.

Dr. Noble thought vaginal hysterectomy not applicable in prolapse, except in small uterus with prolapse of Douglas's pouch to level of anus. High amputation is preferable in some cases; in others, ventral fixation. Later perineorrhaphy is needed.

Dr. Edebohls did not consider hysterectomy indicated for prolapsus, except when new-growth is expected, or there is great cervical hypertrophy. He was accustomed to combine neutral fixation with plastic operations at one sitting, as we lose the full effect of one operation while waiting for the other.

Dr. Currier thought the progress in treatment of cancer to a more radical ground, comparable to the history of treatment of ectopic gestation. We should practise catheterization of the ureters previous to hysterectomy, in order surely to avoid them. Recurrence should be treated by cautery after method of Dr. Byrne, of Brooklyn.

Dr. Baldy lost two of his three cases treated by clamps through overlapping of the distal ends, and so had no liking for that method. In skilled hands hysterectomy is as safe as hysterorrhaphy, and if the broad ligaments are attached so as to raise the vault of the vagina, that method will prove more successful in the treatment of prolapse.

Dr. McCosh thinks silk is gaining ground from catgut in abdominal use. He had not found it necessary to perform the preliminary curetting in cancer at a previous sitting.

Dr. Montgomery had performed all his clamp operations in from ten to thirty minutes, and thought they could safely be removed in twelve hours, though he waited twenty-four.

Present Status of Our Knowledge of the Pathology of Pelvic Inflammation, with Special Reference to the Anatomy and Treatment of Pelvic Abscess.—This was the last paper of the afternoon, by Dr. R. B. Maury, of Memphis, Tenn. He said: The term "pelvic abscess" applied to any collection of pus in the pelvis, no matter what its anatomical relations. Views of pelvic inflammation ten years ago, compared with accepted doctrines of the present time: Pelvic cellulitis known to be an acute inflammation, occurring as one of the features of a puerperal septicæmia. It also occurs as a result of the infection of surgical injuries upon the uterus or vagina. To the extent of producing appreciable exudations, it is of infrequent occurrence even in the puerperal inflammations. Death following septic infection of surgical operations is usually due to peritonitis; cellulitis is seldom found. The dissecting-room proves that pelvic cellulitis to a *minor* extent frequently occurs in association with a *major* peritonitis. In such cases the cellulitis would be incapable of recognition at the bedside. Chronic pelvic cellulitis as a distinct pathological condition believed to be a misnomer, and is of doubtful existence. Clinically, it is impossible of recognition. Pelvic peritonitis associated with diseased uterine appendages is regarded to-day just as it was taught thirty years ago by Bernutz, the keystone of pelvic pathology in women. The collections of pus, here to be considered, are those which follow inflammation of the pelvic cellular tissue, and those which result from salpingitis, ovaritis, and pelvic peritonitis. Abscesses of the cellular tissue are rare. Broad ligament abscesses are very infrequent. Lack of scientific accuracy in the anatomical reports of them. The overwhelming majority of pelvic abscesses are intra-peritoneal. As long as pelvic cellulitis dominated pelvic pathology all the surgical methods for the evacuation of pus were based upon operations through the vagina, or through the anterior abdominal wall. Such methods are applicable to a very small number of cases.

Methods of treatment of pelvic abscesses: 1. Of abscesses extra-peritoneal. 2. Of intra-peritoneal abscesses. Abdominal section the natural method of approaching intra-peritoneal abscesses. It offers advantages which no other possesses. It should be essayed in cases when the exact nature of the abscess is in doubt.

THIRD DAY, THURSDAY, SEPTEMBER 7TH — MORNING SESSION.

Relations of Urinary Conditions to Results of Operative Surgery, was the first paper of the day, by DR. CHARLES P. NOBLE, of Philadelphia. A study of five hundred cases shows that ten per cent. have albuminuria, and yet the prognosis, especially in our gynecological cases, is not necessarily bad. Neither albumin nor tube-casts are always significant of serious disease. Large abdominal tumors are particularly prone to give albumin in the urine, and often casts. These disappear after operation. Examination of urine should include the amount passed in the twenty-four hours, and the quantity of urea. As a rule, the tumor cases showing degenerative changes in the urine do well after operation, but the salpingitis cases badly. The average amount per diem passed, for the first four days after cœliotomy, is about fifteen ounces. The comparative irritant properties upon the kidneys of chloroform or ether is uncertain.

DR. LAPTHORN SMITH, of Montreal, had seen albuminuria relieved by the withdrawal of a pail of serum from the abdomen in malignant disease, just as we know the emptying of the gravid uterus relieves the albuminuria of pregnancy. Prolonged etherization will cause temporary albuminuria in the healthy, whereas anæsthesia may be accomplished for the same period by chloroform without that result.

DR. JOHNSON was relieved by the record of the small amounts of urine usually passed after cœliotomy. He had frequently been alarmed at the reports of nurses of the small quantity that was being passed, and would inquire when the condition might be considered suggestive of suppression. He had learned by experience that it is important to have examinations of urine made earlier than of the night and morning preceding operation.

DR. BOISE, of Grand Rapids, maintained that when the urine is to be increased it should not be by drugs acting upon the already irritated kidneys, but by the injection of water in the bowels.

DR. CARSTON, in spite of the substitution of chloroform for ether in his practice during the past year, had lost two cases from uræmia. The disturbance is primarily of the renal plexus of nerves, either from pressure or septicæmia. He relieves the kidneys by inducing diaphoresis, and gives water by both mouth and rectum. Doubts if the anæsthetic has much to do with the condition. Strychnine in as high doses as a quarter-grain and atropine do most in the way of drugs.

DR. STONE believed that Bright's disease exists in some cases that cannot be determined by the urine. The cardiac and arterial conditions suggestive of a general fibrosis may be our only hint.

DR. CUSHING, of Boston, was of the opinion that ether is often blamed when the condition is one of septicæmia. These great emunctories of the system are first overcome by the sepsis that they are endeavoring to throw off, and the suppression is but the first symptom of a general toxæmia. Bacteria that will ordinarily be flushed out, through a temporary suppression, gain a foothold in the kidney; or a cystitis, caused by the previous catheterization, or already existing, seizes opportunity to pass up the ureters and attack the kidneys. An unwitting ligation or laceration of the ureters is a cause not entirely out of the range of possibility.

DR. NOBLE had been brought up to use chloroform where trouble from the kidneys was apprehended, but doubted now its superiority to ether in that respect. The prognosis of surgical kidney is just as bad in the countries where chloroform is used as in those employing ether. At present his inclination is to use ether in all cases. The shock and exposure have more to do with the suppression than the anæsthetic. The diagnosis will lie, not between normally small amount of urine and suppression, but between suppression and septicæmia.

Drainage of Ovarian Cysts where the Adhesions are Such that it is Impossible to Remove the Sac, was the title of a paper next read by DR. A. VAN DER VEER, of Albany. We may be surprised at the number of adhesions that exist even when the history of pain, and other symptoms indicating a local peritonitis, is wanting. One of the causes of such adhesive inflammations that we are to guard against inflicting upon the patient, is too frequent or too prolonged examination. Our zeal to rid the patient entirely of her cyst may lead us to extend an operation at the cost of life. In some cases it is better to abbreviate the operation, and drain some portion of the cyst wall. Adhesions in the pelvis may be broken with very little subsequent shock, while those to the colon and abdominal viscera are more serious to invade. Drainage is best effected by glass tubes or gauze. Six cases thus treated, that could not have sustained the complete removal of the sac, made a good recovery, with one exception. Here the patient passed from under treatment before the abdominal sinus closed, and infection of its tract caused death from peritonitis.

DR. CURRIER said that a false feeling of security is often acquired from a long series of successes, that the operator is only awakened from by an unexpected death. We will not clear up every area of induration at the expense of the patient. It is true some patients are septic before operation, and it requires only the shock of the operation to turn the scales against them.

DR. NOBLE believed that it is sometimes wise to stop in an operation. Oldshausen and Schroeder teach to remove everything. Especially in cases of malignant growth and papillomatous cyst, it is frequently wise to desist, using perhaps a quantity of gauze for drainage. In non-malignant cases, where the adhesions are limited to the pelvis, better go ahead. It is the adhesions in the abdomen that are dangerous.

DR. SMITH said that the cautery and iron solutions should not be used in the abdomen as styptics. In one case, at a second operation, he had found very dense adhesions over a point where the cautery had been used.

DR. VAN DER VEER noted as an exception that adhesions making knuckles in the intestine should always be broken, and advocated the discarding solutions of iron and the thermo-cautery as styptics in the abdomen.

The After-treatment of Cœliotomy Cases, with Special Reference to Shock and Sepsis.—Paper by DR. EUGENE BOISE, of Grand Rapids, Mich. He said there are three post-operative conditions which call for prompt intelligent action: secondary hemorrhage, shock, and septic peritonitis. Shock is some form of paresis of the sympathetic nervous system. I believe that it is primarily hyper-irritation of the entire sympathetic system. The primary condition in shock is severe stimulation of the entire sympathetic system, with consequent cardiac and arterial spasm. The second stage of shock may be a so-called paresis by reason of the exhaustion of the heart. The remedies, therefore, would be, for the first stage, free hypodermics of codeine, nitrite of amyl, and nitro glycerine, with copious injections of hot water into the colon. For the second stage, strychnia, digitalis, and cardiac stimulants, with, if necessary, intra venous transfusion of hot saline solution.

All operators have an instinctive feeling that prevention of sepsis prevents peritonitis, and, therefore, the efforts are directed to prevent the entrance of septic material into the cavity; or, if the material removed is of septic nature, to cleanse the cavity as thoroughly as possible and to remove the fluid, which would otherwise invite infection. The two post-operative measures relied on for this purpose are drainage and free catharsis. Drainage may be accomplished by tube or gauze, and if used must be thorough.

In the production of catharsis several factors are to be kept in mind. First, after every cœliotomy there is a flow of serum from the blood-vessels into the peritoneal cavity, thus depleting the vessels.

Second, during the first few hours after a cœliotomy of any considerable severity there is more or less paroxysmal abdominal pain, sometimes very severe. This is

caused by irregular and spasmodic peristalsis, the muscular coat of the intestines contracting unequally, and, it may be, tonically obstructing the bowels.

Third, by reason of the withholding of fluids, the intra-peritoneal serous effusion, and, it may be, profuse perspiration, the blood-vessels of the intestines are greatly depleted. For the easy production of catharsis the current should have ceased to flow from the blood-vessels toward the peritoneal cavity.

The spasmodic contraction of the intestines should have been overcome, and the blood-vessels should have been replenished. The serous effusion will cease after a few hours. The spasmodic contraction of the intestinal muscles should be overcome by a hypodermic injection of a free dose of codeine, and the blood-vessels should be filled by means of hot water thrown into the colon. Then catharsis may be produced with comparative ease.

In the discussion that followed Dr. Cushing suggested as an addition in the treatment of shock the subcutaneous injection of hot water. Codeine is to be given at once, if at all. It is difficult to say whether intestinal obstruction precedes sepsis, or *vice versa*.

Dr. Noble emphasized the prophylactic treatment of shock. Patient is to be put in best possible physical condition for the operation. The room is to be kept at a temperature of 75° to 85° F. The body, as far as possible, should be covered with blankets. Wet towels through evaporation, even if wrung out of hot solution, refrigerate the patient, and should give place to dry ones, which can be made equally aseptic.

Strychnine in dose of gr. $\frac{1}{15}$ is very valuable, and its manifest value in shock, in so far as exhibited in the early stages, militates against the theory of over-stimulation of the sympathetic system. He is accustomed to giving one eighth grain of morphine when there is any pain or shock.

Dr. Robert T. Morris said, that it had been shown that water produces changes upon the surface of the peritoneum, and through slight adhesions and roughenings lessens its absorptive powers, and hence renders a development of sepsis more probable. Specimens of animal tissue cannot be preserved in water, but undergo change very slowly in normal saline solution. A normal saline solution is the only fluid that should be used in the abdominal cavity.

After a brief review of the discussion by Dr. Boise, an adjournment for the noon recess was taken.

Afternoon Session.

This session was not upon the calendar, which designed combining this section with those of general surgery and general medicine, for the discussion of the anæsthetics, but was held by the unanimous desire of its members in view of the number of interesting papers that remained still to be read.

An Inquiry into the Etiology of Mental Disturbances Following Operations upon the Pelvic Organs in Women, was the title of a paper read by Dr. George H. Rohé, of Catonsville, Md. The author claims that an analysis of the evidence available shows that a large proportion, perhaps the majority, of cases of mental disturbance following operations upon the pelvic organs, is due to the same causes that produce insanity subsequent to surgical operations generally. These causes are in some cases shock; in others, sepsis; in others, intoxication from drugs or antiseptics used during or after the operation.

In a certain proportion of cases of insanity following operations upon the pelvic organs in women, the mental disturbance is due to the artificial induction of the menopause. In a minority of cases, the mental disturbance is probably due to the shock of the operation in a person hereditarily disposed to insanity.

Dr. Currier related a case of melancholia following the Hegar operation, and one following plastic operations upon the cervix and perineum, performed two months after the subject had endured a four-days protracted confinement.

Dr. Joseph Price, of Philadelphia, spoke of the frequency with which we may observe mental disturbance, associated with low grades of septic infection, in the subjects of fibroids and of ectopic pregnancy. Out of the eighty-six cases of ectopic gestation that had come to him for operation, not one was right mentally. No one living or dead has contributed more to this subject than has Dr. Rohé; criticisms that the secular press has seen fit to lay upon him notwithstanding. Five, ten per cent., perhaps more, of the women in asylums can be taken out. Displacements corrected rectify mental condition. Bad midwifery, too much surgery, are causes of producing mental derangements. Hysterectomy often produces a peculiar change of mental condition and disposition. The subjects are not insane, frequently they could be more comfortably disposed of if they were insane. He is often reminded of the first hysterectomy case—that of Keith, of Edinburgh. Six weeks later she came back to the surgeon, and complained of a potato having been served to her, while she was in the hospital, with its jacket on. They are not insane, but——.

Dr. Rohé, in closing, said that profound anæmia is one of the causes of insanity. Sepsis that existed before the operation is in some cases the patent factor of the insanity that has followed.

If the blood and the general constitution were all right, not one case of operation in five thousand would be followed by insanity.

Extra-peritoneal Treatment of Stump in Abdominal Hysterectomy, was the title of the next paper, by Dr. Joseph Price, of Philadelphia. The picture that is frequently drawn of this method, of a large mass of flesh, foul in odor, sloughing in the abdominal wound, leaving after it an abdominal sinus, is far from the truth. In truth the stump is usually nothing but a small dry button that withers and drops off in four or five days. The opprobrium attached to the *sourd-nœud* method belongs by right to the operators with whom the accidents enumerated happen. As for those who make such an ado about the difficulty of finding a place to apply the constriction, he could think of no other suggestion than that the *nœud* be applied to the operator's neck. The scientific method can be no other than that which proves most successful. From this standpoint a series of one hundred and thirteen cases treated by him by the extra-peritoneal method, proves that the operation is highly scientific.

Leopold, after losing five out of twenty-two cases of intra peritoneal treatment of the stump, recommended that the extra peritoneal be resorted to where the patient is unable to withstand the shock of a long operation. If the wire cannot be applied, better remove the whole uterus. The total extirpation method is a good one, but not so safe as the fixation of the stump.

One Hundred Operations for Severe Structural Disease of Abdominal and Pelvic Organs of Women, was the title of a paper by Dr. I. S. Stone, of Washington. A detailed account was given of the diagnoses, treatments, and results of a series of cases that were operated upon only after an examination, and a unanimous approval by the whole staff of the hospital. The series embraced seventeen cases of pelvic abscess, twenty-one cases of tubo-ovarian abscess, and eleven of myoma uteri, and the total mortality was fifteen per cent.

After the reading of the paper the section adjourned until the following morning.

Fourth Day, Friday, September 8th — Morning Session.

Discussion upon the papers of Drs. Price and Stone of the preceding day opened the order of the last session.

Dr. T. Johnson Alloway considered that, when one is not likely to meet in his practice more than a half-dozen cases demanding hysterectomy from his hands, it is mad-

ness for him to attempt the intra peritoneal method. Out of seventy cases of fibromata that had presented themselves to him, he had judged but four or five of them to need operation. He could present fifteen of that number in whom the symptoms had all disappeared, and who were as rosy-cheeked as one could wish to see, through treatment by the Apostoli method. His predecessors' cases, operated upon by the intra-peritoneal method, had nearly all died, and so he had chosen fixation of the stump when he was forced to operate. The stump may be kept perfectly dry and aseptic until it falls off, by keeping it imbedded in dry boracic acid. He has seen patient bleed to death from the total extirpation of the uterus. Martin's operation has a mortality of twenty-five or thirty per cent., and in the hands of the smaller operators, at least, the extra-peritoneal method is preferable.

Dr. Stone criticised Dr. Price as assuming that we had reached perfection in our method of hysterectomy. Tait had proved that by reflecting the peritoneum from the lower segment of the uterus and the broad ligaments, and thus lessening tension of the stump, the mortality was lowered. But at that point Baer's method is three-quarters done. In skilled hands the latter method can be completed as rapidly as the former is being done.

Deductions from my First One Hundred and Ten Laparotomies for Appendicitis, with Report of Experimental Investigations, was next read by Dr. J. B. Murphy, of Chicago. He said that the appendix is usually situated a little below the mid-point from umbilicus to anterior superior spine of the ilium, though it may be found near the kidney to the left of the uterus, or even near the spleen. By far the greater number of cases of retention appendicitis are from impaction of fecal concretion. Thus in forty cases, thirty-eight fecal concretions were found in the appendix, and only two foreign bodies, such as grape-seeds.

Seventy per cent. of autopsies from appendicitis showed perforation of the appendix, and yet suppurative peritonitis may occur without perforation. Local gangrene is caused by stoppage, infection of the walls, or torsion. A perforation is usually followed by local adhesions, that are afterward broken by accumulations of pus. An extra-peritoneal abscess is not formed as formerly supposed, but has for its outer wall the parietal peritoneum, and for its inner the adhesions that separate it from the general peritoneal cavity. Sudden collapse may occur immediately after the bursting of an abscess into the general peritoneal cavity; it is then from rapid absorption by the broad surface of peritoneum of ptomaïnes. Usually collapse happens only several days after the rupture occurred, the rupture at the time giving no signs. For it is impossible to regard the amount of pus we sometimes find in the abdomen, in an operation following collapse, as the accumulation of less than several days.

There may be a general septic peritonitis, with a pulse of 90, and temperature of 99° F. 1. Sudden attack of pain; 2, nausea or vomiting; 3, localized tenderness over appendix; 4, elevation of temperature. All four of these signs are needed to diagnose an appendicitis, and with them the diagnosis has never proved false.

The estimated mortality of all cases of appendicitis is twenty-seven to thirty per cent. The mortality, in his series of one hundred and seventeen cases that were operated upon, was between nine and ten per cent. The intrinsic peril of operation is practically *nil*.

Incision is to be made over the McBurney, or Kraft, point. The sides of the cavity are to be packed with gauze that remains five to fifteen days. Never irrigate, but use dry sponging. Manipulation of peritoneum, roughening its endothelium, increases its liability to suppuration, and besides the fluid is likely to carry pus into healthy recesses as well as out of the wound.

When removal of the appendix necessitates breaking the wall of adhesions it is not undertaken, but the patient is instructed to summon the surgeon at the first symptom of the return, that is almost inevitable. At that time the appendix is removed before pus has had time to form. Thus from eight cases in which he could not remove the appendix at the first operation, in six he has secured it at a second.

The reading of this paper was followed by another one upon the same topic by Dr. Robert T. Morris, of New York.

Infectious Appendicitis.—Dr. Morris said that within the outer serous envelope that formed an indistensible tube, was an inner tube made up of mucosa, adenoid, and muscular tissue. Thus the structure is precisely the same as of intestine, but the calibre is very small. Appendicitis is an infectious, exudative inflammation from displacement of the guarding epithelium, that gives a mixed bacterial infection of the adenoid. But when the inner distensible tube becomes swollen from infiltration within the outer indistensible tube, it must become choked and gangrene ensues. In mild cases exudation takes place slowly, and slow necrosis ensues. Spasm of the muscular wall produces quick necrosis.

The appendix is supplied by a single artery. An endarteritis once begun must end at length in obliteration, and in the death of the appendix from failure of blood-supply. In the milder cases, the incision should be in the trend of the external oblique, and but one inch and a half in length. The intestines may be rolled along over the finger tip until the appendix slips out. The base is turned in and the peritoneum brought together over it with catgut sutures. The after-disturbance is very slight, and it is difficult to keep patient in bed. In case of exudation the incision should be twice, in abscess three times, this length. A fifteen-volume solution of peroxide of hydrogen is used to irrigate the abscess cavity, and the drainage wick inserted.

Catarrhal appendicitis is a misnomer, as in all cases careful microscopic examination was made and the inflammation shown to be infectious exudative from the start. The prompt and invariable operative procedure urged is termed by some a fad, as was the removal of the appendages in the incipiency of that operation. Between the two procedures we must remember that, in the one we have a useful organ, the removal of which was attended with danger to the subject's life, and resulted in certain undesirable after effects, such as the termination of child-bearing; while in the appendix we have an entirely useless organ that may be removed without danger to life, and with positively no undesirable after effects.

Dr. Bernays, of St. Louis, said that both writers had attacked the subject from the only logical standpoint—the pathology. Dr. Morris had gone the further in taking cognizance of the bacteriological element. The results of operative treatment, as shown by Dr. Morris's mortality of four in forty-eight cases, of Dr. Murphy's seven in the first hundred, and his own statistics, ten in sixty-two cases, showed the great advantage of that course. The previous use of opium makes the prognosis of operation bad.

Dr. Frank, of Chicago, was accustomed to peel back the peritoneum, and after amputation of the appendix, to draw it down and, puckering it with a ligature, shut off the stump.

Dr. Cushing had had personal experience of appendicitis years ago, and the memory is still a nightmare. So-called catarrhal appendicitis is usually left until too late for operation, and then follows death. He believed the incision is entirely free from danger, and is not sure that it were not better for us all to have the appendix removed.

Dr. Eliza Mosher related the case of appendicitis following rubbing of the intestines after a large enema.

Dr. Murphy had found either pus or gangrene in all of his cases but one.

Habits of Posture a Cause of Deformity and Displacement of the Uterus, was the title of the concluding paper of the session, read by Dr. Eliza M. Mosher, of Brooklyn, N. Y. The brim of the pelvis was set at such an angle with the horizontal plane that the line of gravity of

the super-imposed viscera fell without the pelvis, in front of the pubes; and any sudden effort tended to push the uterus against the pubic arch. If this angle were lessened by habits of posture, in either sitting or walking, the line, as was demonstrated upon model, would fall within the pelvis and tend to retroversions and retroflexions if extreme, to anteflexions if less marked. The ideas of the paper were very aptly illustrated by models and drawings.

At the conclusion of the paper the hour for adjournment had arrived, and with an expression of congratulation and indebtedness to the presiding officer, the section dissolved.

SECTION ON OBSTETRICS.

Fourth Day, Friday, September 8th.

Puerperal Infection.—Dr. Edward A. Ayers, of New York, read a paper on this subject. He said our views to day as to the treatment of puerperal infection are in a great state of confusion. A dozen years ago the main line of treatment was that of general systemic remedies, such as alcohol, morphine, cathartics, and external applications. In a short while a recognition of the germ character of the disease led to the use of intra-uterine and vaginal irrigation. The extent to which this method of treatment has been carried is a marvel, not to say a terror. Few doctors refused its aid, most doctors employed it to arrest the disease on suspicion, and many considered their cases neglected if an intra-uterine douche was not administered after delivery in every case.

Following in the train of this method is a list of failures to prevent or cure infection, and a startling number of deaths from mercuric poisoning, that have developed a strong opposition to local douching. The efforts to find something better than the old opium and whiskey treatment has given laparotomists an excuse for testing the merits of abdominal drainage, or exsections of purulent tissues in some form of this disease's varied pathology. There is a grave fault in most of the discussions of this subject, namely, the lack of pathological classification, by which we find in various cases of puerperal infection much greater differences than in many distinct diseases.

Puerperal infection, caused by unclean manipulation of the "examiner," or by abscess in the labia, or the vagina, or uterus, or tubes; or by germs present in the genital tract at the time of labor, as in gonorrhœa and possibly in purulent leucorrhœa, or a sloughing fibroid, or decomposing fœtus or placenta, or partially organized blood-clot, or placenta succenturiata, or uterine rupture, etc., finds a footing somewhere along the genital tract from the vulva to the fundus uteri.

Let us surgically consider the question of local treatment. If a wound can be thoroughly irrigated and efficient drainage and protection secured, in the great majority of cases it will progress uninterruptedly to complete healing. Infection, starting on the surface of the vagina or endometrium, if there were but a superficial abrasion, would respond satisfactorily to irrigation. But suppose the labor has been long and severe; that the head of the child remained long in one place, pressing the uterine wall against the bony structure of the pelvis, with the consequent death of a portion of tissue *en masse*, if infection has obtained a place it will be present at the base of this loosening slough ere the dead mass has separated. Would you expect irrigation to cleanse the tissue beneath this slough? Or suppose the labor was very "laborious," followed by great muscular exhaustion of the uterus, mild relaxations occurring following the completion of the patient's toilet, with the formation of blood clot in the uterine cavity. This mass may be retained for days—I have so observed it—and become soft and foul-smelling, in short, decomposed. Irrigation will not render this mass, which may be as large as an orange, innocuous. Or suppose, following an exhausting labor, with threatened or supervened post-partum hemorrhage, cessation of bleeding is secured by the formation of thrombi in the sinuses of the uterus, nature's resource when the doctor fails to make efficient use of bimanual compression, if the germs have made their bed in these germ inns, how is irrigation going to kill them or drive them out? The thrombi penetrate the wall of the uterus. The antiseptic fluid flowing over the surface will not touch the inner mass. The presence of a placenta succenturiata will also, if unremoved, put an undeserved failure upon irrigation.

Let me briefly outline the indications for these various methods of local treatment.

1. A normal labor with steady and easy advance of the child, with complete removal of the placenta, followed by good contraction and retraction of the uterus, with no indication of a previously existing purulent condition, or of fibroids, but yet with infection, indicates that simple irrigation should do all that is possible, with perhaps the introduction of iodoform gauze, though I would prefer not to use it unless the discharge became purulent.

Use a fountain syringe, held not more than a foot or two above the patient's hips, with the patient lying on her back. A solution of bichloride, 1 to 4,000, at a temperature of 105° F., one to two quarts, should be used, followed by a pint or quart of freshly boiled water cooled sufficiently. I think my tube, which you see has a groove along the under side for exit of the fluid, is made of hard rubber and has a hole at the end as well as sides, permitting the stream to reach all parts at the fundus and without danger of forcing fluid through the tubes of the uterus, while the force is made so slight by keeping the syringe-bag low, and cannot possibly break, is preferable to Chamberlain's glass tube. The indication for repeated irrigation must be the rise of temperature. If the symptoms do not promptly subside, I would use iodoform gauze following irrigation.

2. A labor history that indicated prolonged pressure of the head would suggest possible gangrenous sloughing, and would call for the use of iodoform gauze from the start, to aid drainage, stimulate repair, and lessen decomposition.

3. A history of post-partum hemorrhage, or of torn placenta, with the presence of unusually large shreds of tissue in the lochial discharge, would call for an exploration of the uterine cavity. Putting the patient in Sims's position, a large blunt curette should be used in conjunction with irrigation, and the question answered: "Is débris present?" A thorough curettement followed by the introduction of iodoform gauze would be indicated.

4. A case where, on examination, the uterus is found to be relaxed, soft, "doughy," pitting on pressure, with a very offensive discharge, very purulent in character, and with general symptoms of high fever, profuse sweats, and great prostration, indicates purulent infiltration of the body of the uterus. From a theoretical stand point it may be said with assurance that intra-uterine irrigation will do nothing but possibly lower the temperature a little for a half hour. Pus is present throughout the connective and muscular tissues of the body of the uterus.

Irrigation of the cavity cannot possibly reach it. As well expect a stream of water flowing over the mammary gland, the seat of many abscesses, to wash away the pus within.

Post mortem examination of such cases shows pockets of pus dispersed throughout the muscular tissue that have no outlet into the uterine cavity. What resources have we in such cases for cure? General supportive treatment through the long weeks of struggle, or, may we not declare in favor of abdominal hysterectomy? In any other part of the body we would employ, in such a condition, multiple incisions with the introduction of drainage-tubes. We cannot do that here; it is possible to remove the diseased mass altogether.

A resolution of thanks to the President of the section was passed unanimously. Dr. Mitchell gave credit for the success of the section to the English- and Spanish-speaking secretaries, Drs. Hugh Hamilton and J. J. Castellanos. Dr. Hamilton said a large proportion

of the forty-seven papers had been read whose titles had appeared in the programme. All had been of high quality.

The section adjourned.

SECTION ON DISEASES OF THE MIND AND NERVOUS SYSTEM.

THIRD DAY, THURSDAY, SEPTEMBER 7TH.

Hypnotism: Does It Menace Public Weal?—DR. F. C. VALENTINE, of New York, read a paper on this subject, in which he stated that: 1. The therapeutic possibilities of hypnotism are not denied. A patient who persuades himself, or is persuaded, that he can be cured by the hypnotic influence, is as well or better cured than by drugs or appliances that do not appeal to his view of the case. 2. The hypnotic state should never be allowed a status in law or morals. While it is certainly better that a hundred rogues escape than that an innocent being be punished, there is no conceivable human mind that can be induced by hypnotic suggestion to do what its owner knows to be wrong. Those "moral defectives" who cannot distinguish right from wrong are proper subjects for the insane asylum. It must be clearly understood that no one can be hypnotized without his own fullest consent and co-operation; consequently any law of the land, or even unwritten code of morals, violated while under the alleged "influence" is as punishable as if committed in full independent possession of the mental faculties.

With this view everywhere accepted and established, hypnotism will no longer be a menace to public weal.

DR. C. G. COMEGYS, of Cincinnati, asked if in hypnotic states we have not an abeyance of the voluntary power. He thought the condition was allied to the dream-life, and that a man is as irresponsible in his dreams as when in the hypnotic state.

DR. MILLS, of Philadelphia, said that the paper seemed to him an illogical treatment of the subject, and contained many contradictory statements, which he pointed out *in extenso*. It would be unfortunate both for law and morals if hypnotism were made an excuse or defence for crime.

DR. BROWER, of Chicago, agreed with the criticism and views of Dr. Mills. In his experience there were extremely few susceptible to the influence of hypnotism. He thought that we can no more formulate any law controlling all cases of alleged hypnotism than we can in regard to all cases of insanity.

DR. A. B. RICHARDSON, of Columbus, O., believed there was a therapeutic value in hypnotism. Its indiscriminate use was dangerous to society. Public exhibition was a crime against public policy, and its practice should be limited to physicians.

DR. GRAEME HAMMOND, of New York, had concluded that foreigners were the more susceptible subjects. He discarded the use of hypnotism to a great extent. He had only noted some amelioration of symptoms, but no cure. He had noticed that the most susceptible people were mentally defective.

DR. JUAN PADILLA, of Guatemala, Mexico, believed that the writer of the paper had not sufficiently demonstrated the advantages offered by hypnotism, not only as a therapeutic agent but likewise as a medium that might in certain judicial cases serve to ascertain the truth.

DR. C. H. HUGHES said that there could be no question as to the possibility of inducing hypnotism. It should not be used as a plea in extenuation or defence of crime. It would be important to note the method by which hypnotism was accomplished. He designated it by the term "Somnavolism," and defined it as a condition of the absence or subjection or abeyance of the volition due to the induced sleep state.

DR. VALENTINE, in closing the discussion, said that he had only presented his paper in abstract. He believed, however, that every patient who has been hypnotized has been humbugged, and that ere long hypnotism and works on the subject will be relegated to the galleries of ancient discarded medical curiosities.

The Discrimination between Ordinary Paretic Dementia and Tabes Dorsalis on the one hand, and Syphilitic, Cerebral, and Spinal Disease Simulating the Former.—This was the title of a paper read by Dr. E. C. Spitzka, of New York. It was discussed by Drs. Dercum and Mills.

The Treatment of Inebriety.—Dr. J. G. Reed, of Elmwood Place, O., read a paper upon this subject.

The following papers were read by title: "Disease of Inebriety," by T. D. Crothers, M.D., of Hartford; "The Traumatic Psychoneurosis, its Relations to Paranoia, Epilepsy, and Paretic Dementia," by J. G. Kiernan, M.D., of Chicago; "The Urine in Sexual Neurasthenia," by Charles L. Dana, M.D., of New York; "Suppurative Meningitis and Myelitis, with Exhibition of Specimens," by Graeme M. Hammond, M.D., of New York; "Chorea," by Charles Henry Brown, M.D., of New York; "Study of the Temperature in Twenty-five Cases of General Paralysis of the Insane," by Frederick Peterson, M.D., of New York; "The Present Status of Infantile Cerebral Palsies," by Frederick Peterson, M.D., of New York; "The Successful Management of Inebriety without Secrecy in Therapeutics," by C. H. Hughes, M.D., of St. Louis; "The Medical Treatment of Insanity," by Edward C. Mann, of Brooklyn, N. Y.; "Where the New-born Baby Learned to Suck," by C. A. F. Lindorme, M.D., of Atlanta; "The Influence of Alcohol upon the Human Powers and Constitution," by T. L. Wright, M.D., of Bellefontaine, O.; "Neuro-angio Paralysis and its Relation to Paretic Dementia," by Frank C. Hoyt, M.D., of Clarinda, Ia.; "Civil Service in American Hospitals for the Insane," by S. V. Clevenger, M.D., of Chicago; "La Renguera," by Daniel Guitterez y Arango, M.D., of Call, Cauca, Colombia; "The Nervous Symptoms of Storms," by Curran Pope, M.D., of Louisville; "A Peculiar Type of Vaso-motor Neurasthenia (the Pulsating Disease), with Report of an Operation for the Same," by Charles L. Dana, M.D., of New York; "Nutrition against Stimulation," by W. H. Maxson, M.D., of St. Louis; "The Study of Criminal Anthropology and Social Reform," by Abundio Aceves, M.D., of Guadalajara, Mexico.

To Prevent Rust on Surgical Needles.—Dr. Horace T. Hanks, of New York, writes: "I have found, formerly, much difficulty in keeping my needles always free from rust and sepsis. For a year, however, I have kept all my needles in pure 'lysol,' and am perfectly satisfied with the result. I place from thirty to fifty assorted needles, points upward, in a suitable small bottle—large mouth, and screw-top preferable—and then fill with lysol. When needles are to be used turn the lysol into another phial and the needles on to a plate, and select the ones required, returning lysol and needles to the original bottle when through. By this means I always have aseptic needles, free from rust, and a small bottle of germicide fluid if no other is at hand."

The Cure of Hay Fever.—The treatment of hay fever is subject to criticism such as comes to no other disease, namely, from societies of the sufferers themselves. It is interesting to note that the patients are not as enthusiastic over, and do not report such good results as a society of their medical advisers would be likely to do. The United States Hay Fever Association have recently held their annual meeting in Bethlehem, N. H., and listened to papers largely on the disease from the patients' point of view. It appears to be the general opinion that the only certain relief is to be found in the White Mountains, and that most therapeutic measures are of little or no use, and some of them harmful. The treatment by local cauterization in the nose is often of benefit, but the benefit is generally only partial and temporary.

Correspondence.

IRRIGATION OF THE COLON IN INFANTS.

To the Editor of the Medical Record.

Sir: The article under the above title, by Dr. J. H. Huddleston, in your issue of the 9th inst., appeared to me to be both timely and well written. Considering the value of this measure as an aid in the treatment of diarrhœal diseases far too little attention has been given it. I have found it applicable both in hospital and in private practice, and in no case where I have used it have I been disappointed. It is only an aid in the treatment, and can only be an adjunct to the regulation of diet and to internal medication, but it is a most valuable aid.

During the past season's work at the Seaside Hospital of the Sanitarium for Hebrew Children I employed it in almost every case of diarrhœal disease; certainly in every case of entero-colitis. I employed, at first, the saline solution in some cases; in others the solution of boric acid, and in still others, only clear, tepid water. After a rather lengthy trial, I set the others aside in favor of clear water, of a temperature of 75° to 80° F.

The apparatus was precisely the same as that employed by Dr. Huddleston, excepting that I used for larger children a No. 18 catheter. The position was, however, different. The child's clothing was loosened and drawn up out of the way. Then the child was laid upon its back, near the edge of the bed, its buttocks raised by a pillow protected by a rubber cloth. This cloth was, where it came under the child's body, covered with a folded diaper to prevent chilling contact. The lower end of the rubber cloth was then placed in a pail set upon the floor, thus forming a drain to carry away the discharges and to protect the floor.

The nurse then drew the child's limbs, covered with a thin blanket, to prevent undue exposure, up toward the body, and held them there. The catheter, anointed with vaseline, was inserted with a gentle rotary motion, and, as soon as the sphincters were passed the water was allowed to flow into the rectum. I found that by this simple procedure the doubling up of the tube, otherwise so frequent, was reduced to the minimum. The water distends the rectum moderately and allows of the free passage of the tube. The entire catheter was passed, and the water allowed to pass freely in and out, for I found that in every case, after the colon had become moderately distended, the water, and, in addition, fæces and mucus, or mucopus, were passed with considerable force. In every case the irrigation was continued until the water returned perfectly clear. In some cases the quantity used was as high as four quarts. If any of the fluid was retained it was quickly passed into the diaper after the child was put back to bed.

In no case did I meet with collapse, or anything approaching it. (I must admit, however, that where I thought the infant too weak to bear the irrigation, it was not employed till the child was sufficiently revived to receive the treatment.) On the contrary, the peevish became quiet, those who had not slept were soon able to get good, large doses of that best of restorers, and the movements decreased most gratifyingly in number and in the amount of mucus contained.

In addition to the treatment described above, the strictest attention was paid to diet and to internal medication.

The treatment may be employed in the patient's home just as well as in the dispensary or hospital.

The instruments required are so simple, and the cost so small, that there is no reason why the treatment should not be in more extensive use than it is.

Very truly yours,

F. Bierhoff, M.D.,
Physician to the Sanitarium for Hebrew Children.
170 West 126th Street.

INGROWING TOENAIL.

To the Editor of the Medical Record.

Sir: I have read with more than passing interest the article in the Record of September 2d, entitled "A Report of Twenty-three Cases of Ingrowing Toenail Operated upon by the Method of Anger," and am interested sufficiently to ask, Why such a troublesome operation in place of the old one of complete enucleation? According to this article more time is given to the operation, after-treatment, and healing, and more trouble caused (as is shown in Cases 13, 15, 17, 18, 21, and "three cases in which considerable discomfort was caused by a new piece of nail starting") than in the enucleation operation. With a little nitrous oxide gas, or the ether spray, antiseptic after-treatment with iodoform or icthyol, the entire removal of the offending toenail is effective and satisfactory. If the patient is fully able to liquidate for visits at so much each, and is not obliged to be at work, all good and well. But in this country, where the operation is done probably at a distance from my office, and the patient not seen again for six months or a year, I hardly think the new operation would be successful. I am in favor of all new ideas, if practicable, to all surgeons and all classes of patients, but I can see nothing practicable in a cutting and flap-and-stitching operation for the cure of ingrowing toenail.

Park Holland, M.D.
Hyattville, Wyo., September 9, 1893.

CODEINE POISONING.

To the Editor of the Medical Record.

Sir: In the Record of July 15th Dr. William Philip Spratling gives his experience with a case of "Codeine Poisoning," his patient, a woman, having taken sixteen one half-grain pills of codeine. He writes that he saw her "three hours after taking the pills;" that "she was awake, able to converse perfectly well, but was extremely restless and irritable;" that "she suffered greatly from intense irritation of the skin over the entire body. There was also marked hyperæsthesia."

H. C. Wood's "Therapeutics" contains reports of several clinical observers whose experience with toxic doses of the drug are so varied that a report of a recent case of mine may be of interest.

J. K——, aged thirty-eight, a well developed, robust man, had la grippe about two years ago. Following his sickness he had a troublesome cough, to relieve which, he had taken, at beginning, small doses of morphia sulph.; but had gradually increased the dose until he had become a slave to the drug, taking at times fifteen grains per diem.

A short time before I was called to attend him he had seen, in a pamphlet issued by Mercks, that codeine would cure the morphine habit, and had purchased a bottle containing one hundred one-half grains of McKesson & Robbins's codeine pills. He began by taking ten pills at 8 P.M., waiting until 8.30 P.M. without perceptible effect; he then took ten more, and at 9 P.M., the longing for the usual effect of morphine was so pressing that he took twenty more pills, making in all forty, equal to twenty grains of codeine. He then patiently waited for the tranquillity this antidote promised. Instead, at 10 P.M. he began to experience an intense burning along the spine and flexor muscles of the arms and lower extremities, whence it rapidly extended to every part of the body. I saw him at 11 P.M., found him very nervous and excited; eyes sparkling and staring; conjunctiva red and injected; indeed the whole body was as red as a boiled lobster. Skin looked puffy and œdematous. He was frantically going about the room vigorously rubbing himself with a moistened crash towel. Great vascular excitement; pulse, 130; respiration, 22; temperature, 99½° F.; pupils not contracted; experienced none of the effects of morphia. Begged me to give him an hypodermic of morphia.

Bathing the body with a solution of biborate of soda controlled in a measure the burning and itching, which continued until 2 A.M., when it gradually disappeared, leaving the skin hyperæsthetic for twenty four hours. There was at no time symptoms of opium poisoning. No nausea or vomiting. No contraction of pupils, no loss of co-ordination. He had for some time been reducing the quantity of morphia, so that he was taking about two grains three times a day (his statement), which must be taken *cum grano salis*.

The pills were made by the well-known firm of McKesson & Robbins, and contained one-half grain of codeine.

I have been giving a patient, sixty years of age, with diabetes, one of these pills three times a day, which causes him to be drowsy and to sleep soundly at night.

Very respectfully,

Z. J. LUSK, M.D.

WARSAW, N. Y., September 15, 1893.

THE TREATMENT OF DYSMENORRHŒA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: Under the caption of a case of dysmenorrhœa I recently reported a case to the MEDICAL RECORD. I have received twenty-four valuable and interesting letters from various members of the profession in all parts of the country. This speaks well for the far-reaching distribution of the MEDICAL RECORD. . . . .

What has been the history of this case since my last date of writing? She went to Asbury Park for a diversion of six weeks. She bathed in the ocean, took chloralamid when necessary, and continued the albuminate of iron, also valerianate of zinc during the premonitory period, and even during the period itself. During the first period that followed her arrival here she had much pain, and passed a great quantity of membrane from the uterus (membranous dysmenorrhœa). The next period better, still painful, but more bearable. The improvement is gradual, but sure and encouraging. The membranous discharge was undoubtedly caused by the intra-uterine galvano-caustic to which she had been subjected. Almost always it is the case, so far as I have observed at Apostoli's Clinic and in my own work, that the result of electrical treatment does not manifest itself until some time after the discontinuance of the treatment. I have stopped the chloralamid, and she is taking nothing now but salipyrin—which is a useful and valuable synthetic production in many uterine troubles that have neuralgic and periodic symptoms—and the iron.

HORATIO R. BIGELOW, M.D.

PHILADELPHIA, September 18, 1893.

THE CASE OF IMPETIGO HERPETIFORMIS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: In a recent number of the MEDICAL RECORD I find the report of a case of "Impetigo Herpetiformis," by Dr. Herman, of Memphis. The remark is made there that it is the second case reported in America. This is not correct. The undersigned communicated a paper containing the details of a typical instance of that rare disease to the Ninth International Congress at Washington, as the "Transactions" of the same will show, and also published his case in the *Monatshefte f. prakt. Dermatologie*, in 1887. Another case, though not quite typical, is described by Dr. Sherwell, of Brooklyn, in the *Journal of Cutaneous and General Urinary Diseases*, 1889, p. 456.

If, by the way, the objective reader is justified in having a diagnosis upon the description of another, Dr. Herman's case is by no means an example of impetigo herpetiformis. This dermatosis does not begin with a vesicular eruption, but is from the start pustular in character, the typical arrangement in groups, the centre of which soon crusts over, the peripheral extension of the patches, the localization in certain characteristic places (genito-crural surfaces, anal folds, axillæ, elbows, breasts, navel, nails, etc.), is not alluded to in Dr. Herman's report. Nor is there ever any ulceration present, nor do elevated, or, indeed, any sort of scars ever form in impetigo herpetiformis. The favorable result of the treatment is surely very remarkable, as heretofore almost all cases had a fatal termination.

Still, Dr. Herman's case may, after all, be an example of that disease, as the woodcut and some points in the description suggest; but if it is, the writer has failed to convince the reader of the correctness of his diagnosis.

JOSEPH ZEISLER, M.D.,
Professor of Dermatology Northwestern University.

CHICAGO, ILL.

IS THERE A REAL NECESSITY FOR A NATIONAL HEALTH BILL?

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: In your issue of September 16th I see a friend favoring the bill for a National Bureau of Health for certain things the bureau might do. It seems to me that all that could be done by the different State Boards of Health, provided the people wanted them to do so. A National Bureau of Health seems to be entirely foreign to American institutions. True, the United States represent a nation, and a great one too, but we must also remember every State of the Union is sovereign of its internal affairs, and not one of the fourty four States is without a State Board of Health, and if the above boards are made to answer the purpose for which they are created, and be under control of competent medical men, every State in the Union will be in an excellent sanitary condition, and in that case the United States can get on all right without any Secretary of Public Health. Practically, the nation cares only for one secretary, *i.e.* (Secretary of the Treasury). As to quarantine, there are already Federal laws on that subject, and some laymen already suspect us *causa nota*, for that bill is no more justified than a ministers' bill for a national bureau of religion. Unfortunately our profession has as many sects nearly as the Christian religions, and a passage of the medical bill would be a good stimulus for our clerical brothers, healers of the souls of men. Foreign governments have departments of religion, and the United States never had such a department, and probably will never have. As to the National Health Bureau bill, I trust the bill, if introduced in the Senate, will lie on the table till all the doctors of the country will agree.

Very truly,

GEORGE A. LURIA, M.D.

181 ELDRIDGE STREET, NEW YORK.

Nitrate of Aconitine in Facial Erysipelas.—Tison (*Sem. Méd.*, August 25, 1893) was first induced to use this remedy in 1888, and has employed it subsequently in every case of facial erysipelas which has come under his treatment. The results have been highly satisfactory, pain and other symptoms having been rapidly subdued, save in two instances, and in neither of these could the complications which arose be due to the treatment. Although the nitrate of aconitine is highly poisonous, and it may be objected to by some on this account, if used as now suggested the danger of untoward symptoms is very slight. The alkaloid is dissolved in a mixture of glycerine, alcohol, and distilled water, the mixture having the same specific gravity as water and containing 1 milligr. in 50 minims. Only 2 to 4 milligr. are required in any one case. The method of procedure is as follows: According to the condition of the stomach, either an emetic or a purgative is administered, immediately after which nitrate of aconitine is given in a mixture containing 1 milligr. for the twenty-hours' dosage. The affected part is painted with a saturated ethereal solution of camphor, which acts as an excellent sedative. When all signs of inflammation have subsided the part is washed with a solution of lysol.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending September 23, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	42	7
Scarlet fever	45	4
Cerebro-spinal meningitis	2	2
Measles	39	3
Diphtheria	91	39
Small-pox	39	3
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

The New Law Regulating the Practice of Medicine in Kentucky.—Be it enacted by the General Assembly of the Commonwealth of Kentucky:

SECTION 1. It shall be the duty of the County Clerk of each county to purchase a book of suitable size, to be known as the "Medical Register" of the county, and to set apart one full page for the registration of each physician; and when any physician shall die or remove from the county, he shall make a note of the same at the bottom of the page; and said clerk shall, on the first day of January in each year, transmit to the office of the State Board of Health a duly certified list of the physicians of said county registered under this law, together with such other information as is hereinafter required, and perform such other duties as are required by this law; and such clerk shall receive the sum of fifty cents from each physician so registered, which shall be his full compensation for all the duties required under this law.

SECT. 2. It shall be unlawful for any person to practise medicine, in any of its branches, within the limits of this State, who has not exhibited and registered in the County Clerk's office of the county in which he resides his authority for so practising medicine as herein prescribed, together with his age, address, place of birth, and the school or system of medicine to which he proposes to belong; and the person so registering shall subscribe and verify by oath, before such clerk, an affidavit containing such facts, which, if wilfully false, shall subject the affiant to conviction and punishment for perjury.

SECT. 3. Authority to practise medicine under this law shall be a certificate from the State Board of Health, and said Board shall, upon application, issue a certificate to any reputable physician who is practising, or who desires to begin the practice of medicine in this State, who possesses any of the following qualifications: First. A diploma from a reputable medical college legally chartered under the laws of this State. Second. A diploma from a reputable and legally chartered medical college of some other State or country, indorsed as such by the State Board of Health. Third. Satisfactory evidence from the person claiming the same that such person was reputably and honorably engaged in the practice of medicine in this State prior to February 23, 1864. Applicants may present their credentials by mail or proxy, and the Board shall issue its certificates to such applicants as are entitled thereto as though the applicant was present. All certificates shall be signed by the President and Secretary, and attested by the seal of the Board, and not more than two dollars shall be charged for any certificate.

SECT. 4. Nothing in this law shall be construed as to authorize any itinerant doctor to register or to practise medicine in any county in this State.

SECT. 5. The State Board of Health may refuse to issue the certificate provided for in section three of this article to any individual guilty of grossly unprofessional conduct of a character likely to deceive or defraud the public, and it may, after due notice and hearing, revoke such certificates for like cause. In all cases of refusal or revocation, the applicant may appeal to the Governor, who may affirm or overrule the decision of the Board, and this decision shall be final.

SECT. 6. Nothing in this law shall be so construed as to discriminate against any peculiar school or system of medicine, or to prohibit women from practising midwifery, or to prohibit gratuitous services in case of emergency; nor shall this law apply to commissioned surgeons of the United States Army, Navy, or Marine Hospital Service, or to legally qualified physicians of another State, called to see a particular case or family, but who does not open an office or appoint any place in this State where he or she may meet patients or receive calls.

SECT. 7. It shall be the duty of the State and local boards of health to bring to the attention of the courts any violations of the provisions of this law within their respective jurisdictions.

SECT. 8. Any person living in this State, or any person coming into this State, who shall practise medicine, or attempt to practise medicine in any of its branches, or who shall perform, or attempt to perform, any surgical operation for or upon any person within the limits of this State, for reward or compensation, in violation of the provisions of this law, shall, upon conviction thereof, be fined fifty dollars, and upon each and every subsequent conviction shall be fined one hundred dollars and imprisoned thirty days, or either or both, in the discretion of the jury; and in no case, where any provision of this law has been violated, shall the person so violating be entitled to receive compensation for services rendered. To open an office for such purpose, or to announce to the public in any other way a readiness to practise medicine in any county, shall be to engage in the practice of medicine within the meaning of this law.

Approved, April 10, 1893.

Another Telling Epitaph. — William B. Savage, M D., of East Islip, L. I., writes: The perusal of a seasonable epitaph in your issue of September 2d, calls to mind one that I came across in the old churchyard at Cheltenham, England. It seems that an old physician, accompanied by his three daughters, went to Cheltenham to test the efficacy of the waters for which it was famed at that time. While sojourning there his three daughters died. The old gentleman, feeling that he was not long for this world, drew up his will, in which he left instructions that the following epitaph should be inscribed upon his tombstone:

> "Here lies I, and my three daughters,
> All through drinking these ere Cheltenham Waters.
> Had we stuck to Epsom Salts,
> We shouldn't have been lying in these ere Vaults."

Mistakes in Diagnosis.—It was stated not long ago in the House of Commons that four hundred and fifty persons had been admitted last year to fever and small-pox hospitals in London on physicians' certificates, who were afterward found not to be suffering from contagious diseases. Of this number ninety-seven died, but the death was in every case, as the President of the Local Government Board maintained, due to the disease with which the patient was at the time suffering, and not from any cause which was related to the removal.

What Woman Can Do.—A Kentucky woman who concluded her medical studies this spring brought home in one arm her diploma and in the other her week-old babe. Another woman, in Kansas, not long ago celebrated her election as town mayor by giving birth to a child on the same day. Which either proves the superiority of woman over man by way of versatility and endurance, or it may be accepted as a protest by nature against modern attempts to set insuperable barriers.

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Original Articles.

MYXŒDEMA—THE FUNCTIONS OF THE THYROID GLAND, AND THE PRESENT METHOD OF TREATMENT OF MYXŒDEMA.*

BY FRANCIS P. KINNICUTT, M.D.,

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THE nature of thyroid tissue, its distribution in the body, its relation to other gland tissue and to the pituitary body, and finally the functions of the thyroid gland, have been the subject of investigation by numerous observers, especially in the last decade.

Victor Horsley, in a critical and historical review of the functions of the thyroid gland, published in 1891,[1] concludes from all accessible evidence that the thyroid gland is a structure essentially connected with the metabolism of the blood and tissues; that in fulfilment of its functions it is hæmopoietic both directly and indirectly, and that it forms, that is, secretes, from the blood a colloidal substance which is transmitted via the lymphatics from the acini of the gland to the circulation.

Evidence that the thyroid gland is directly hæmopoietic rests mainly, 1st, upon the observations of Credé [2] and Zesas,[3] to the effect that hypertrophy of the thyroid followed experimental extirpation of the spleen in animals, together with an increase in the number of white cells and a diminution in that of the red corpuscles. Later the leucocytosis disappeared. Horsley also noted, clinically, hypertrophy of the spleen following experimental thyroidectomy, a condition verified post mortem;[4] 2d, upon the anæmia associated with cachexia strumapriva. Horsley observed in experimental thyroidectomy in monkeys [5] a continuous diminution in the red blood-corpuscles subsequent to the removal of the gland, with an increase in the leucocytes, but only for a comparatively limited period, when the decrease in the former ceased and an oligæmic equilibrium was established and maintained until death. He found, moreover,[6] definite lymphoid tissue of a distinctly splenic character. Also, by an enumeration of the leucocytes in the thyroid arteries and veins, respectively, he was able to show that they were in a greater proportion in the latter, and that this proportion was greater than existed in the vessels of the limbs. In the absence of further evidence on this point, a directly hæmopoietic function of the thyroid gland cannot be considered as yet proven.

The theory of an indirect hæmopoietic function is based chiefly upon the observations of the condition of the blood following thyroidectomy. The changes noted by various observers (Herzen, Hofrichter, Albertoni and Tizzoni, and others) [7] are increased venosity, marked diminution in the oxygen of the arterial blood, even to the degree of its falling below that in the veins, and the presence of mucin in the blood plasma.

Albertoni and Tizzoni were able to demonstrate that the deficient oxygenation was not due to mechanical interference with the respiratory act, by obtaining the same results in dogs which were tracheotomized after thyroidectomy. Horsley justly remarks that such changes gravely "altering the constitution and functional activity of the blood, must evoke a considerable degree of anæmia both by destructive changes in the fluid itself and by the effect which it, thus altered, necessarily exerts on the blood-forming tissues, for example the marrow.[8] Further observations on these points are to be desired.

That the thyroid gland forms or secretes a colloidal substance, which is transmitted via the lymphatics from the acini of the gland to the circulation, was first apparently demonstrated by King,[9] and later confirmed by Langendorff,[10] Kohlrausch,[11] Horsley,[8] and others.

King's interesting contribution "On the Structure and Adaptations of the Thyroid Gland," was published in 1836, with some additional notes on the same subject by Sir Astley Cooper. The former was able to demonstrate the introduction of the peculiar secretion of the gland into the lymphatics, by expelling its contents by gentle and repeated compressions into the lymphatics of the surface, and there coagulating the fluid *in situ*. He further considers the sources in the living body of compression and muscular manipulation of the gland, viz., the movements of the larynx both vertically and toward the spine, the distention of the œsophagus in the descent of food, and finally the action of the muscles investing the gland, the sterno-hyoid, the omo hyoid, and sterno-thyroid. It is of interest to note that in speaking of extreme fibroid atrophy of the gland, which he had observed in a particular case, he states that "the peculiarities of the individual were fully sufficient to indicate the importance of the defective part."

King, therefore, not only recognized the importance of the functions of the thyroid gland, but possibly had observed the clinical picture which is now known under the name of myxœdema.

Sir Astley Cooper's notes contain a chemical analysis by Babington of the thyroid secretion, from which the latter was led to believe that it was largely an albuminous fluid.[9] Passing over other early analyses of this secretion, the chemical investigation of its nature by Langendorff, which is one of the most recent, may be mentioned.[10] He examined the colloidal contents of the thyroid follicles with various reagents, and finally, from their behavior with acetic acid, concluded that mucin is not present. The various tests for albumin confirmed the conclusion that the colloid material either consists of albumin or that it is the chief component. Concerning the nature of the single or preponderating albumin present, he states that it is not alkali-albumin, unless, as Virchow suggests, it be alkali-albumin modified by a large percentage of sodium chloride. He failed in his analysis to find an appreciable quantity of globulin. The contents of the lymph-spaces were found to be identical with the colloid substance of the follicles. The course of the secretion beyond the lymph-spaces he was unable to demonstrate, and he advances the view that it remains in the gland (in its follicles and lymph-spaces) and becomes dehydrated, and that the unique function of the thyroid gland is to purge the blood of useless or injurious substances.

Whether we accept Horsley's view that the thyroid gland possesses a twofold function, viz., "a hæmatogenous and a mucin-excreting one," or we reject the former and believe that the gland "secretes a substance which, entering the circulation, prevents an auto-intoxication by transforming the toxic products of metabolism into easily eliminated bodies, or by directly neutralizing these products," a view at present held by many, the vital importance of a physiological activity of its functions is to-day recognized by a great majority of observers.

* Read before the Association of American Physicians at Washington, June, 1893.

Evidence of the correctness of this belief is found:

First. In the developmental history of the thyroid gland.

Horsley has shown that in the human fœtus the epithelial cylinders of the gland begin their secretory functions from the sixth to the eighth month.[1] Huschke[12] found that its proportion to the weight of the body in the new-born was that of 1 to 400 to 243, 1 to 1,166 at the end of the third week, 1 to 1,800 in the adult. In other words, its functions are well developed in intra-uterine life and early infancy, at a period when metabolism is especially active. Again, in intra-uterine cretinism, which is now well recognized, and in which the cretinic and myxœdematous cachexia is far advanced at birth, as a rule no trace of the thyroid gland is found.

Second. In the ultimately fatal cachexia (cachexia strumapriva) which follows total extirpation of the thyroid gland in many species of animals. The dependence of the symptoms of cachexia strumapriva upon injuries inflicted in thyroidectomy upon the laryngeal nerves and the cervical sympathetic and vagus, a view, first advanced by Munk, has been shown to be incorrect.[13] A series of experimental investigations by Ewald, Herzen, Horsley, and others have demonstrated that these nerves can be subjected to every kind of irritation without producing any of the symptoms of this cachexia.

Third. In the similar cachexia which, in a large number of cases has been observed to occur after complete thyroidectomy in man.

Fourth. In the clinical events which accompany and follow gradual morbid changes with loss of function in the thyroid gland, constituting a well-defined disease, to which the name of myxœdema has been given by Dr. Ord. The dependence of myxœdema upon such changes has received the most positive demonstration. In the very admirable and elaborate investigation of the subject of myxœdema by a committee of the Clinical Society of London,[14] extending over the period from 1883 to 1888, in thirteen autopsies in patients dying of this disease, in which the thyroid gland was examined, striking and uniform disease of the gland was found in every instance; the pathological change consisting in the replacement of the glandular structure by fibroid tissue. Moreover, all clinical and pathological observations up to the present date indicate that this is the one condition common to all cases of this disease.

Further valuable evidence of the active function of the gland is found in the recognition, in partial thyroidectomy, of an hypertrophy of the portion of the gland not removed; in a similar hypertrophy of the accessory glands or thyroid tissue in cases in which complete thyroidectomy has been performed experimentally in animals; and finally, in the amelioration or arrest of sporadic cretinism, cachexia strumapriva, and myxœdema, which at present are regarded as practically identical, either by transplantation in animals or human beings, or by the injection of, or feeding with, a thyroid extract.

It will be of interest to refer briefly to a few of the experimental investigations upon which these observations are based.

Hofmeister,[15] removed the thyroid gland in a number of puppies of five to sixteen weeks of age, allowing the accessory glands to remain. The usual fatal cachexia was averted, and the animals were killed at intervals of one to seven months after operation, apparently in good health. At the autopsies a marked retardation of bony growth, as compared to that of the control animals, was found. The long bones and those of the pelvis were most affected, those of the cranium and jaw, least. The length of the tibial diaphysis, two and one-half months after operation, measured only fifty-eight millimetres as compared with seventy-seven millimetres in the controls. There was also delay in the ossification of the epiphyseal lines and the synostoses. The sella turcica was unusually broad, and the hypophysis cerebri (pituitary body) was noticeably hypertrophied. There was also a follicular hypertrophy of the ovaries. The retention of the accessory bodies, it is seen, was able to avert a fatal issue in extirpation of the thyroid. The presumably increased activity of their functions was not, however, sufficient to fully compensate for the loss of the gland.

Halsted, in a series of very interesting experiments, was able to demonstrate that many times the normal weight of the thyroid gland could be removed from the human subject by performing partial thyroidectomies at intervals of several months; in other words, that a very marked and rapid hypertrophy of the portion of the gland left occurred.[16]

In transplantation experiments, whenever successful fixation of the gland has been obtained, amelioration of the cachexia has occurred. Among the earliest experimental workers in this field may be mentioned Schiff, Kocher, and Bircher.

A case of great interest of this kind has been reported very recently by Gibson.[17] Apparent recovery from sporadic cretinism followed the grafting of one lobe of the thyroid gland of a sheep into the anterior abdominal wall, and a second lobe into the abdominal cavity.

Gley's experiments on rabbits gave the following results: The removal of both the thyroid gland and accessory bodies was followed by death. Removal of the thyroid gland alone resulted in hypertrophy of the accessory bodies, with recovery. Removal of the accessory bodies alone was followed by no unfavorable results. Gley also found that extirpation of the spleen added neither to the rapidity of death nor to the severity of the symptoms. Removal of the hypophysis cerebri (pituitary body) produced symptoms similar to those observed after extirpation of the thyroid, and injection of thyroid juice cured or ameliorated the effects of such removal.[18]

Upon the gradually acquired knowledge of the vital importance of a physiological activity of the functions of the thyroid gland rests the evolution of the present method of treatment of the diseases in which these functions are impaired or lost, viz., myxœdema, sporadic cretinism, and cachexia strumapriva.

An historical summary of the steps in this evolution is contained in a paper by me in the "Transactions of the Association of American Physicians" of the present year. I shall therefore take up the narrative at the date (October, 1891) of the introduction of hypodermic injections of an extract of the thyroid gland in the treatment of myxœdema, by Dr. George Murray, of Newcastle, England.[19]

At about the same time, Brown-Séquard and D'Arsonval[20] had suggested its use, but to Dr. Murray is due the honor of the practical application of the method and a demonstration of its success. Dr. Murray's first case, one of well-marked myxœdema, was treated with the most brilliant results by injections of a glycerine extract of the thyroid gland of a sheep, and others in rapid succession were treated similarly by him, with equally remarkable benefit.

Numerous English clinicians quickly followed in his footsteps, and up to the present date sixty-seven cases of myxœdema and sporadic cretinism have been reported, of which a brief summary is appended, in which a similar method of treatment or a modification of it to be described, has been followed by equally brilliant results. In these cases, with two exceptions, the myxœdematous symptoms not only have been greatly ameliorated, but in many they have disappeared, and individuals who had become apparently hopeless invalids, with degeneration of mental and physical vigor, have been restored to lives of comfort, and in some instances of usefulness.

A further evolution of this treatment is due to Dr. Mackenzie, of London, and Dr. Fox, of Plymouth, England.[21] The disadvantages of injections of thyroid extract consist in the not infrequent production of abscesses and indurated swellings, presumably due to the use of not absolutely aseptic preparations, or to a technique not without reproach, and the occasional occurrence of rather alarming symptoms immediately following the introduction of the extract into the economy—the result, Dr. Murray believes, of a too rapid injection.

By a curious coincidence, the discovery was made simultaneously by Dr. Mackenzie and Dr. Fox that the administration by the mouth of the thyroid gland possessed all the advantages, without any of the disadvantages, of injections of the extract.

The raw, minced glands of a sheep, prepared in various ways to make them as palatable as possible, were given at intervals of a day or two, to myxœdematous patients, with results similar to those described from the use of injections.

Further modifications of this treatment consist in the employment of the slightly cooked gland, and of the extract in a dry state, in the form of tablets.[22]

As the symptomatology and treatment of myxœdema, in addition to a consideration of the functions of the thyroid gland, have been assigned to me in the present discussion, I have thought that the former might be best illustrated by the clinical history of a typical case* of the disease which has been under my personal observation for several months. It is as follows:

S. W——, housewife, forty-nine years of age, was admitted to the wards of St. Luke's Hospital, October 26, 1892.

Family Antecedents.—There is no evidence of the existence of myxœdema either in direct or collateral lines. The patient's father died of heart disease, her mother of cancer of the breast.

Personal History.—Menstruation appeared at fifteen years; the function was exceptionally normal throughout its entire period. The menopause occurred at forty years. There have been two births, at an interval of three years, the last twenty-five years ago, and no miscarriages. The patient's life has been throughout a tranquil and happy one. Exceptionally good health was enjoyed until about twelve years ago, when a slight impairment of hearing was noticed by patient, which has gradually increased up to the present time. At about the same period the skin began to grow rough and scaly, and this symptom was more noticeable during the winter months. Very gradually the skin became dry and wrinkled, and there was little or no perspiration even in warm weather. Eight years ago, a slight hesitancy in speech was appreciable, and gradually it became an effort to talk. At about the same time the hair began to fall out and no new growth followed. A little later a puffiness of the face, particularly about the eyes, was noticeable, which gradually increased until two years ago; since this date this symptom is said to have remained stationary. Six years ago, locomotion became impaired, increased size of the feet was noticed, and larger and larger shoes gradually have been required. An apparent thickness of the tongue and enlargement of the hands, with brittleness of the nails, were next noted. During the past two years there has been some impairment of memory. In the past year, locomotion gradually has become very difficult, and of late the patient has been able neither to stand nor sit up without support, and has been comfortable only when in bed. The eyesight, the sense of smell and of taste, apparently have remained unaffected.

A study of the family and personal history of the patient throws little light upon the etiology of the disease. An inherited predisposition, catamenial disturbance, excessive child-bearing or lactation, rapidly succeeding pregnancies, which have been regarded as possible factors in the causation of myxœdema, are all absent in the present case. This is also true as regards prolonged mental worry, and specific or exhausting illnesses. The age at which the first symptoms were developed, corresponds with that of a large proportion of cases of myxœdema, and the nature of the symptoms and the slow progress of the disease are very characteristic.

Condition on Admission to Hospital.—The patient presents the characteristic appearance of an advanced case of myxœdema. The physiognomy is dull and mask-like from the effacement of the natural lines of the face. The features are broad and coarse. The face is enlarged in all its dimensions, especially in its transverse diameter. Its skin is dry, wrinkled, and markedly thickened, especially over the forehead. Over the cheeks and bridge of the nose there is a rather sharply defined pinkish patch, in strong contrast with the porcelain-like hue of the orbital area. The lower eyelids are swollen and baggy, and a puffiness of the tissues immediately below is very noticeable. The whole nose is swollen and the bridge flattened. The hair of the eyebrows and eyelashes is short and scanty. The apertures of the eyes are narrowed and the space between them is broadened. The mouth is widened transversely. The lips are swollen, especially the lower one, which is pendulous, everted, and of a violet hue. There is a constant dribbling of saliva. The mucous membrane of the mouth is evidently thickened, the tongue markedly so. The gums are swollen and spongy. The teeth which remain, sixteen in number, are in various stages of decay. The uvula is normal in appearance. The scalp is covered with a thick mass of dry scales, and

Fig. 1.—Immediately before Treatment.

the hair is dry, ragged, brittle, and scanty. There is an extensive tumefaction of the subcutaneous tissues directly above the right ear. The skin of the trunk and extremities, particularly of the hands and feet, is excessively dry, thickened, and scaly. There is an entire absence of hair in the axillæ and about the pubes. The hands and feet are markedly thickened and broadened. The nails are brittle, marked with longitudinal striæ, and the crescents are absent. There is slight pitting on firm pressure over the dorsal surface of the feet. Circumscribed tumefactions are present in both supra-clavicular regions, this sign being more marked on the right side. The speech is monotonous, slow, and of a character which must be heard to be fully appreciated. It is characteristically similar in all the cases of myxœdema which have come under my notice. A slowness in apprehension, thought, and action, is very appreciable, but the mental process, finally, is correctly performed. There is some impairment of memory, especially for recent events, and the patient is emotional.

There is a paresis of the nuchal muscles, of the muscles of the trunk and of the extremities. The head tends to fall forward, the patient sits up with great difficulty, and cannot stand or walk without much assistance. There is, in addition, a certain amount of inco-ordination of the muscles of the lower extremities. Dynamic register of grip: right, 71, left, 68. There is a distinct diminution in the reaction to the faradic current in the muscles of

* The case was kindly referred to me by Dr. Elizabeth Cushier, of this city.

the extremities. The reaction of degeneration to the galvanic current is not present. Cutaneous sensation is in all respects apparently normal. Retardation of sensation is absent. The deep reflexes are normal, the cutaneous diminished. There is incontinence of urine and obstinate constipation, with from time to time involuntary movements of the bowels. The urine has a low specific gravity (1.012 to 1.014) and is, as a rule, alkaline in reaction. It contains a trace of albumin. Sugar is absent. Amorphous and triple phosphates are very constantly present. The average excretion of urea is four grains to the ounce. The eyesight is apparently normal, as are also the senses of taste and smell. The hearing is markedly impaired. The voice is only heard when greatly raised and the mouth placed to the ear.

An examination kindly made by Dr. Charles S. Bull is as follows: Tuning-fork heard equally well in both ears. Watch slightly better in left ear, but heard only when in contact with auricle. Membrana tympani in each ear shows the usual signs of chronic catarrhal proliferous otitis. They are sunken and altered in curvature, particularly in Shrapnell's membrane. Handle of malleus very prominent in both ears. Light spot somewhat diffused. Eustachian tubes readily opened by politzerization. There is chronic antero posterior hypertrophic rhinitis, which extends well down into pharynx.

The temperature is constantly subnormal, the range being from 96° to 97.5° F. (mouth). In connection with the low temperature noted, it may be stated that the patient says she is always cold, even in hot weather; moreover, that there is never any moisture of the skin at any season of the year.

The pulse averages about 70, and is without tension. There is no appreciable thickening of walls of arteries.

Examination of the blood shows good rouleau formation. The red corpuscles are of average size and shape. Hæmoglobin, 48 per cent.; red cells, 3,160,000 per c.mm.; white, 4,680 per c.mm. The white cells are absolutely, but not much relatively, reduced. Stained specimens show various forms of white cells in their normal proportion to each other. (Dr. Southworth.)

Physical examination gives negative results as regards the lungs, liver, and spleen. The first sound of the heart is feeble; there is an absence of murmurs. There is no enlargement of the superficial glands. There are a number of deeply pigmented moles scattered over the surface of the trunk, extremities, and neck. The thyroid gland is not palpable; the fulness of the neck, however, interferes with a satisfactory examination.

The symptoms and signs presented by the patient form an almost classical picture of myxœdema. The long duration of the disease, twelve years, the gradual evolution of symptoms, the final development of the stage of degeneration, which justly occasioned doubt, on the admission of the patient to the hospital, of a much further prolongation of life, constitute a very interesting and instructive study.

As the history of the case is intended to embrace the symptomatology of myxœdema, I shall call attention only to those symptoms which were not observed in the present instance, but which have been reported as being present with more or less frequency in other cases, and to those which were noted and which hitherto either have not been described, or have been mentioned as of infrequent occurrence.

Insanity (melancholia, dementia) has been noted not infrequently associated with myxœdema, and at least one case of melancholia with epilepsy has been reported.[25]

Its possible dependence in such instances upon the myxœdematous state, apparently had not been entertained previous to the results observed by the present method of treatment of myxœdema. A further reference to this point will be made later.

In the present case no disturbance of the psychical functions other than that mentioned, existed. Retardation of sensation, which has been observed in about half of the recorded cases of myxœdema, was not present. In regard to this symptom, it may be mentioned that in many cases the note of the reception of the sensation may have been deferred by the hebetude of the patient. Incontinence of urine, which was observed in the present case, has occasionally been noted in others. Incontinence of fæces, which was also present, has not been reported hitherto, so far as I am aware.

The case seemed an exceptionally favorable one, from its long duration and the advanced and degenerative stage which it had reached, for a study of the effect of treatment by feeding with the thyroid gland.

Feeding, rather than injections of the extract, was determined upon, on the ground that any benefit which might ensue would be even of greater interest. In spite of Mackenzie's reported results, much scepticism was felt of the possibility of a remedial action of a gland secretion, which could only enter the blood or lymph channels after its introduction into the stomach and its exposure to the action of the gastric juice.

From the date of admission to the hospital until November 26th, one month, the patient was confined to her bed without treatment of any kind, that the effect of an equable temperature and simple hygienic measures might be observed. During this period her condition remained without appreciable change. The temperature (mouth), taken at intervals of four hours except during sleep, presented slight diurnal variations, the range as a rule being between 96° and 97° F. and a fraction.,

On November 26th, a sandwich of what at the time was supposed to consist of the minced raw thyroid gland of a sheep, was given and repeated on the six succeeding days. Its ingestion was not followed by the slightest variation in the temperature curve, the percentage excretion of urea, or in any subjective sensation. It was then discovered that a large lymphatic gland, taken from the tissues immediately contiguous to the site of the thyroid, had been used instead of the latter.

On December 10th, half a drachm of the minced raw thyroid gland of a sheep in an equal amount of glycerine,* was given by the mouth. The temperature, pulse, and urea excretion were alike unaffected by its administration. A like amount was given on the four succeeding days, with similar results. The only subjective sensation complained of by the patient during this period was a slight feeling of dizziness.

On December 15th, one drachm of the raw minced gland was administered in a similar amount of glycerine. The pulse, respirations, and temperature immediately previous were, 72, 16, and 97° F., respectively. Five hours later the pulse and temperature were 76 and 98.5° F., the respirations remaining unaffected. The patient expressed herself as feeling no discomfort of any kind. A similar amount of the gland, equivalent to one lobe, was given daily, with a single omission, until January 7th, twenty-three days.

The temperature range during this period was between 98° and 100½° F., the higher point being reached in the afternoon; the pulse rose to 96 on the second day, and constantly ranged from this date between 90 and 106. It is seen that with the administration of the increased dose the pulse and temperature were immediately affected. The urea excretion also rose directly from 3½ grains to the ounce to 8 grains.

On December 29th, nineteen days after the first dose of the gland had been given, and two weeks after its use in larger amounts, the improvement in the patient's condition was very striking. The expression of the face had changed very remarkably; the swelling of the tissues had greatly diminished, the bagginess of the lower eyelids had disappeared, the lower lip was no longer everted and swollen, the saliva had ceased to dribble, the speech had markedly improved, and the thickness of the hands and feet had begun to diminish, the tumefactions above the ear and in the supra-clavicular regions were not palpable,

*The preparations used by me were kindly furnished by Dr. Paul Gibier and Dr. George Crary, of this city.

the skin of the palms of the hands and of the feet was distinctly less dry; the scanty hair on the scalp, however, had become still scantier, the reaction of the urine was still alkaline, of rather low specific gravity, and contained rather a large amount of phosphates.

Fig 2.—Twenty-first Day of Treatment.

The patient expressed a feeling of great comfort, and moreover a sensation of general warmth which she had not felt for years, and which had been developed at the very beginning of treatment. The raw gland had, however, become very distasteful, and she could be persuaded only with difficulty to take it.

On January 7th, after twenty-three days of its use, its ingestion was followed by vomiting and a rather acute disturbance of digestion, and the treatment was discontinued for ten days. The improvement in the patient's condition was, however, uninterrupted during this period.

It was noted that the temperature curve rapidly lost its irregularity on the temporary discontinuance of the treatment, and became normal, and the pulse gradually fell to 76–80.

On January 16th, five weeks after the first ingestion of the raw gland, the following note was made:

The patient is hardly recognizable as the one of a month ago. The myxœdematous signs, as far as the face is concerned, have entirely disappeared. The expression is natural, there is no longer any appreciable swelling or increased thickness of the skin of the face, neck, or trunk, of the lips or tongue. The speech has lost its peculiar characteristics. The hearing has so much improved that the patient now hears the ordinary conversational voice across the ward, and also the singing in the chapel of the hospital, one hundred and fifty feet distant. The dryness of the skin has markedly diminished, and beginning desquamation on the hands, feet, and scalp is noticeable. The hands have recovered their normal size, and the feet are markedly thinner. An abundant new growth of fine hair on the scalp and eyebrows is appreciable. With the disappearance of the tulness of the neck, a satisfactory examination is possible. The thyroid gland is not appreciable.

On January 19th the treatment was again initiated, and has been continued to the present date. A slight change has been made in its technique and in the dosage. The expressed juice of the gland rather than the raw substance has been given, as the former is without taste when administered in milk or water, and does not produce any digestive disturbance. Fifteen minims of the juice, representing one-quarter of an average amount obtained from one lobe of the gland of the sheep, has been given once weekly, by the mouth, in a little milk. The improvement has been continuous (Fig. 3).

During the first week in February desquamation of the skin of the entire body occurred; very large strips, several inches in length and breadth, could be easily removed from the different areas. The process was very rapidly completed, leaving a delicate, elastic, normally moist skin and of a natural color. The entire scalp became thickly covered with a new growth of hair, and the same was true of the eyebrows. A new growth about the pubes was also noticeable. During the early period of the treatment the hair of the scalp which still remained rapidly fell out.

The patient became cheerful, bright, and the improvement in the mental processes was very marked. Gradually the patient became able to sit up without support, and then to stand, and finally to walk. It will be recalled that on admission she had practically been bedridden for a year.

A study of the photographs taken before treatment and at subsequent intervals illustrates the marvellous change which has been effected in the patient's appearance and condition.

The similar clinical observations which have now been made by many careful investigators have secured for the method of treatment which I have described not only a very general recognition, but they naturally have suggested therapeutic possibilities which hitherto have hardly been dreamed of. The field of study and investigation

Fig. 3.—Eighteen Weeks after Treatment.

thus opened is a wide and most interesting one. The future history of the cases of myxœdema and sporadic cretinism, which are reported in the present paper, will be watched with interest.

Present indications suggest the possibility that the maintenance of the extraordinary improvement noted may be secured only by the indefinite continuance of the treatment.

TABLE I.—*Cases of Thyroid Grafting.*

Reporter	Sex and age.	Previous condition.	Method.	Results.	Reference.
Kocher	Not stated		Implantation of small portions of goitrous gland.	Speedy absorption	Brit. Med. Jour., July 26, 1890, p. 201.
Kocher	Two cases		One-half gland grafted into abdominal wall.	Aseptically exfoliated.	Brit. Med. Jour., July 26, 1890, p. 201.
Kocher	Three cases.		Whole gland inserted loose into abdominal cavity.	One case greatly improved.	Brit. Med. Jour., July 26, 1890, p. 201.
Bircher	Female, 33	Epileptiform seizures after accidental total extirpation of thyroid.	Intra-peritoneal graft of portions of apparently normal human thyroid.	Cure: relapse after three months. Fresh grafting; nine months later second relapse.	Volkmann's Samml. klin. Vorträge, No. 357, March 5, 1890.
Lannelongue and Legroux	Female, 14	Cretin; idiotic; thyroid apparently absent.	Two-thirds of one lobe of sheep's thyroid inserted into right submammary region.	Result not reported	Soc. de Biol., March 8, 1890.
Bettancourt and Serrano	Female, 36	Myxœdema for several years; no thyroid perceptible.	One-half sheep's gland inserted into each submammary region.	Immediate and marked improvement in physical condition; mental condition not stated.	La Semaine Méd., Aug. 13, 1890, p. 294.
Merklen	Female, 41	Myxœdema for ten years; mental condition fair; metrorrhagia.	One lobe of sheep's thyroid inserted into submammary region.	Cessation of metrorrhagia: improvement of myxœdema.	Mercredi Méd., Nov. 19, 1890, p. 571.
Macpherson	Female, 39	Myxœdema for three years; melancholia, stupor, delusions of fear.	Portions of sheep's gland inserted into each submammary region.	Cured	Edin. Med. Jour., May, 1892.
Robin	Male, 7	Congenital myxœdema	Two lobes from sheep inserted into submammary region.	Had previously been treated successfully by injections of thyroid juice: grafting done to perpetuate effect.	Lyon Méd., Aug. 7, 1892.
Gibson	Male, 6	Sporadic cretinism	Two lobes from sheep inserted into pectoral region; ten months later, two lobes inserted into abdominal cavity.	Very marked improvement after first operation; myxœdema cured; cretinism lessened.	Brit. Med. Jour., 1893, vol. i., p. 58.
Affleck	One case	Sporadic cretinism	Grafts into mammary regions	Very much benefited	Lond. Med. Press, Feb. 22, 1893, p. 200.

TABLE II.—*Cases Treated by Injections.*

Reporter.	Sex and age.	Duration of disease.	Method.	Duration of treatment.	Results.	Remarks.	Reference.
G. R. Murray	Female, 46	Four to five years	Glycerine extract of one-half sheep's gland twice per week.	Three months.	Very much improved	Relapses when treatment is discontinued.	Brit. Med. Jour., Oct. 10, 1891, p. 746; Aug. 27, 1892, p. 449.
G. R. Murray	Female, 52	Twelve years	Glycerine extract of one-half sheep's gland once per week for four months; each second week for three months.	Seven months.	Improved very considerably.		Brit. Med. Jour., Aug. 27, 1892, p. 450.
G. R. Murray	Female, 62	Six to seven years.	Glycerine extract of one-half sheep's gland each week.		Very marked improvement.	Sudden death from heart failure after exertion.	Brit. Med. Jour., Aug. 27, 1892, p. 450.
G. R. Murray	Female, 64	Five years	Glycerine extract of one-fourth to one-half sheep's gland each week.	Three months.	Considerable improvement.	Death from sudden heart failure.	Brit. Med. Jour., Aug. 27, 1892, p. 450.
A. T. Davies	Male, 43	Thirteen years	Murray's method	About seven months.	Remarkable improvement.	Relapses when treatment is discontinued.	Brit. Med. Jour., Aug. 27, 1892, p. 450.
A. T. Davies	Not stated	Not stated	Murray's method	Not stated	Gradual improvement.		Brit. Med. Jour., Aug. 27, 1892, p. 451.
Cecil F. Beadles	Female, 50	Eight years	Injections at various intervals, in all nineteen.	Five months	Insanity cured; physical symptoms practically cured.	Form of insanity: delusions and religious melancholia.	Brit. Med. Jour., Dec. 24, 1892, p. 1386.
Hearn	Three cases.	No details			Improved very much		Brit. Med. Jour., Aug. 27, 1892, p. 452.
Ernest C. Carter	Female, 43	More than five years.	Murray's method	Three and one-half months.	Insanity improved; physical symptoms cured.	Form of insanity: melancholia with paroxysmal excitement.	Brit. Med. Jour., April 16, 1892, p. 805.
Wallace Beatty	Female, 45	Five to six years	Murray's method	Two months	Practically cured		Brit. Med. Jour., March 12, 1892, p. 544.
Mendel	Female, 58	Eleven years	Injections daily	One month	Much better physically and mentally	Marked mental apathy	Deut. med. Woch., Jan. 13, 1893.
Napier	Female, 54	Five years	Injections at various intervals, sixteen in all.	Six weeks	Much improved		Glasgow Med. Jour., Sept., 1892, p. 161.
Claye-Shaw	Female, 33	Four years	Injections of thyroid juice.	Three months.	Quite well in all respects: insanity cured.	Form of insanity: restless melancholia, almost homicidal.	Brit. Med. Jour., Aug. 27, 1892, p. 451.
Mitchell-Clark	Male, 48	Not stated	Murray's method	Two months	No result		Brit. Med. Jour., Aug. 27, 1892, p. 451.
Mitchell-Clark	Middle age.	Not stated	Murray's method	Six weeks	No result		Brit. Med. Jour., Aug. 27, 1892, p. 451.
Robin	Male, 7	Congenital	Daily injections of thyroid juice.	Not stated	All traces of œdema disappeared: other symptoms improved.	Grafting done subsequently to perpetuate effect.	Lyon Méd., Aug. 7, 1892.
Henry	Female, 44	Fourteen years	Injections bi-weekly for ten weeks; weekly for eight weeks.	Eighteen weeks.	Vastly improved	Subsequently treated by thyroid feeding.	Brit. Med. Jour., April 8, 1893, p. 737.
Hurry Fenwick	Three cases.				Improvement	No details given	Brit. Med. Jour., Oct. 22, 1892, p. 894.
Ruffer	Two cases				Apparently cured	No details	Brit. Med. Jour., Oct. 22, 1892, p. 894.
Hadden	Two cases				Not stated	No details	Brit. Med. Jour., Oct. 22, 1892, p. 894.
Bouchard	Two cases				Rapid improvement		Bull. de Méd., Oct. 2, 1892.
Barron	Female, 64	Five years	Two injections per week.	About three months.	"Considers herself well."		Brit. Med. Jour., Dec. 24, 1892, p. 1384.
Barron	Female, 55	Not stated	Two injections per week.	Seven weeks	Very much improved	Under treatment at date of report.	Brit. Med. Jour., Dec. 24, 1892, p. 1384.
Cockbill	Female, 32	Four months	Injections thrice weekly.	Two months (?)	Cured	Thyroid was enlarged instead of atrophied.	Brit. Med. Jour., Jan. 7, 1893, p. 8.
Lundie	Female, 54	Fourteen years	Murray's method	Six weeks	Improved	Treatment discontinued on account of abscesses; subsequently treated by thyroid feeding.	Brit. Med. Jour., Jan. 14, 1893, p. 64.
Wichmann	Female, 35	Two years	Glycerine extract of nine glands in all.	Five weeks	Cured: subsequently relapsed to a slight degree.	Form of insanity: hypochondriasis and melancholia.	Deut. med. Woch., Jan. 14, 1893, and March 16, 1893.
Wichmann	Female, 36	Four years	Injections of glycerine extract.	Two months	Cured: symptoms of slight relapse six weeks later.		Dent. med. Woch., March 16, 1893.

TABLE III.—*Cases of Thyroid Feeding.*

Reporter.	Sex and age.	Duration of disease.	Method.	Duration of treatment.	Results.	Remarks.	Reference.
Mackenzie	Female, 39	Four years	Raw thyroid and glycerine extract.	Three weeks	Marked improvement		Brit. Med. Jour., Oct. 29, 1892, p. 940.
Fox	Female, 49	Not stated	Glycerine extract, and, subsequently, gland lightly cooked.	Three and one-half months.	Cured		Brit. Med. Jour., Oct. 29, 1892.
Bramwell	Female, adult.	Not stated	One-half gland on alternate days at first, and smaller doses subsequently.	Not stated	Very much improved	Produced symptoms of heart failure at first.	Brit. Med. Jour., Feb. 25, 1893, p. 411.
Foulis	Not stated		One-eighth thyroid		Death from violent diarrhea after first dose.		Lond. Med. Press, Feb. 22, 1893, p. 200.
Foulis	Not stated		One-eighth thyroid twice per week.	Eight weeks	Greatly benefited.		Lond. Med. Press, Feb. 22, 1893, p. 200.
Baber	Male, 53	Six years	One gland at irregular intervals; in all, five glands.		Marked improvement.		Brit. Med. Jour., Jan. 7, 1893, p. 10.
Lundie	Female, 54	Sixteen years	One-sixth gland twice per week.		Cured	Previously treated by injections.	Brit. Med. Jour., Jan. 14, 1893, p. 64.
Holman	Female, 44	Seven years			Practically well	Still under treatment	Brit. Med. Jour., Jan. 21, 1893, p. 114.
Davies	Four cases				Improved rapidly	Heart action extremely enfeebled in one case by remedy.	Brit. Med. Jour., Feb. 4, 1893, p. 252.
Calvert	One case		Fried gland		Vastly benefited		Brit. Med. Jour., Feb. 4, 1893, p. 235.
Pasteur	One case				Much benefited		Brit. Med. Jour., Feb. 4, 1883, p. 235.
H. Mackenzie	Female, 40				Practically well		Brit. Med. Jour., March 4, 1893, p. 461.
Hadden	One case		Powdered thyroid extract.	One month	Quite well		Brit. Med. Jour., March 4, 1893, p. 461.
J. H. Benson	Middle age.	Eight years.	Thyroid extract twice daily.	Three months.	Nearly well		Brit. Med. Jour., April 15, 1893, p. 795.
Henry	Female, 44	Fourteen years	One lobe every second day.		Vastly improved	Previously treated successfully by injections.	Brit. Med. Jour., April 8, 1893, p. 737.
Vermehren	Female, 29	Twenty-four years.	Powdered extract		Marked improvement		Deut. med. Woch., March 16, 1893, p. 255.
Laache	Male, 49	One year	Powdered extract	Three and one-half months.	Cured		Deut. med. Woch., March 16, 1893.
Howitz	Female, 42	Seven years	Four lobes from calf daily for one month, and, subsequently, two lobes every second day.		Much improved		Deut. med. Woch., March 16, 1893, p. 255.
Shapland	Female, 52	Ten years	One-half thyroid daily, slightly cooked.	Three months.	Quite well		Brit. Med. Jour., April 8, 1893, p. 738.
Thompson	One case		One-fourth gland once per week.		In seven weeks had grown one and one-fourth inch; general condition much improved.		Lond. Med. Press, Feb. 22, 1893, p. 200.
Thompson	Male, 18		One-fourth gland once per week.		In eight weeks grew one and one-fourth inch.		Lond. Med. Press, Feb. 22, 1893, p. 200.
Bruce	One case				Cured	No details	Lond Med. Press, Feb. 22, 1893, p. 200.
Dunlop	Five cases				One improved, four not stated.		Lond. Med. Press, Feb. 22, 1893, p. 200.
Church	Two cases				Not stated	No details	Lond. Med. Press, Feb. 22, 1893, p. 200.

In conclusion, I shall offer a few suggestions in regard to the technique of the treatment. From my personal experience I believe that the best form in which to administer the gland is the expressed juice given in a little milk or water. Dr. George Crary, of this city, has found the size and weight of the lobes of the sheep to vary so widely that he has been led to adopt a uniform standard for the preparation of the juice, viz., one of which one drachm of the glycerine extract represents grains xxiv. of the gland. At the beginning of treatment in any given case, fifteen minims of this preparation should be given daily, and its effects carefully watched. If no effect is obtained, the dose should be doubled, and still further increased if necessary. As improvement occurs, smaller doses, and given at longer intervals, will be found sufficient to secure further good results, until finally ten or fifteen minims administered no oftener than once a week, or even at longer periods, will be indicated. During the first weeks of treatment, experience suggests the wisdom of carefully guarding against ill effects, such as symptoms of heart failure, etc., by insisting upon the avoidance of all physical exertion on the part of the patient.

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Some Spelling Reforms.—After four years of careful investigation and great labor the American Association for the Advancement of Science has adopted a set of rules for the spelling and pronunciation of chemic terms. Among these rules are those advocating the dropping of the final *e* in all such words as *bromid*, *iodid*, *chlorid*, and the like, and also in all such as *bromin*, *iodin*, *chlorin*, etc. Is there any reason, earthly or unearthly, for not following the suggestion? Why shall we not drop the conjoined letter diphthongs in all words? Let us spell all our words from the Greek *αἶμα*, with the single vowel *e* instead of *æ*. Let us say *hemorrhage*, *hemostatic*, etc., clear through the list. The same with all other *a's*, usually spelled *æ*, as in *orthopedic*, *pediatric*, *anesthetic*. The same with *œ*: Let us accept *edema*, *celiotomy*, *diarrhea*, *fetus*, etc.—*Dr. G. M. Gould.*

THE OPERATIVE TREATMENT OF UTERINE PROLAPSE OR SACRO-PUBIC HERNIA.

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PROFESSOR OF GYNECOLOGY IN CHICAGO POST-GRADUATE SCHOOL; GYNECOLOGIST TO WOMAN'S HOSPITAL, TO CHARITY HOSPITAL, TO COLUMBIA DISPENSARY, AND TO POST-GRADUATE HOSPITAL.

The causes of uterine prolapse, or sacro-pubic hernia, are still imperfectly known. Imperfect knowledge of causes is sure to be surrounded with deficient knowledge of effects. The deficient knowledge of the various causes at work producing sacro-pubic hernia has induced various operators to invent and practise different kinds of operations for the cure or relief of this common disease in women. This article is not to deal with the etiology of sacro pubic hernia, but every one of the three great cases inducing it must be borne in mind, viz.: *a*, Intra-abdominal pressure; *b*, deficient support in the sacral segment of the pelvic floor; and *c*, loss of tone in the anterior pelvic segment. Any operation which will cure sacro pubic hernia must remove or overcome the forms under *a*, *b*, and *c*. Opinions vary very much to-day both as to etiology of prolapse and its methods of cure. In sacro-pubic hernia the essential organ first involved is the vagina, hence narrowing that will not alone produce a cure and keep the uterus in place. One writer takes the ground that the uterus itself has nothing to do with prolapse, so that it will be seen that there is left only the floor of the pelvis to repair in order to cure sacro-pubic hernia. Simon, of Heidelberg, was probably the first gynecologist who had systematic success in operations for sacro-pubic hernia. He freshened portions of the vaginal outlet and united the denuded surface. Time fled on and men saw that the vagina had an anterior and posterior column which was very valuable to aid in operative procedures to relieve sacro-pubic hernia. So these columns were spared in the denudation. The columns of the vagina are the remnants of Müller's ducts where they coalesce to form the vagina. Some, as Neugebauer, thought that to unite a denuded surface of the anterior to the posterior vaginal wall would prevent the uterus being forced out. But subsequent births rupture this bridge of union; then follows Emmet's and Martin's operations, which are just alike in principle. They denuded lateral portions of the vagina and united the surfaces. They thus narrowed the lower third of the vagina and stiffened the pelvic floor. Better, they attempted to restore the direction of the vaginal canal, just as we must do in the radical cure of inguinal hernia. If success follows operation for inguinal hernia we must restore the obliquity of the inguinal canal by lifting the cord high up to the original site of the internal inguinal ring, and uniting the peritoneum internal to it. As the uterus rests in the floor of the pelvis it cannot prolapse unless it mounts over the perineum.

Now, just as soon as the vaginal canal loses its obliquity, or, in other words, becomes straight, and the upper end of the vaginal tube approaches the lower end of the vaginal tube, sacro-pubic hernia will follow. The uterus and vagina will be forced out. One of the great progressive forces in sacro-pubic hernia is the pointed shape of the cervix, which bobs backward and forward at every breath through the vaginal outlet. The cervix is a veritable drill, which, like an advancing wedge, gradually widens the vaginal outlet, and there is no hope for cure until the cervix is forced in some other direction. The point of the cervix can be destroyed only by amputating it so that only a broad stump end is left. A small little polypus will soon cause uterine prolapse, because it drags on the cervix, and soon gets the cervix pointed in the direction of the vaginal canal. Then all the pointed cervix has to do is to dilate the vagina, which it does at every step, breath, song, or cough. The cervix can be forced in a backward direction by denuding a portion of the anterior vaginal wall and uniting the edges. We have now the three operative procedures which will really cure sacro-pubic hernia, viz.: *a*, Stiffen the pelvic floor; *b*, amputate the cervix, and *c*, direct the cervix backward by narrowing the anterior vaginal wall. All three are not needed at every operation, but the judgment of the operator must decide in each case. No operator can successfully cure sacro-pubic hernia by trying all published operative procedures, but he must rather select what he sees to be the most reasonable and safe, and then follow it persistently. The writer is no friend to pessaries, and believes in curing prolapse by operation, and the above three operations will be about as successful as any. It will be rare to employ the three parts in any one case.

1. The cervix should be first amputated, if it is required. It will be of course amputated in every case of elongation. The amputation will leave a wide (non-pointed) cervix, so shortened that it will not induce the vagina to gradually widen at each uterine movement, which occurs at every breath, or step, or increase in abdominal pressure. Silk, chromicized catgut, or silkworm-gut may be used for suture.

2. The second step is to denude a part of the vagina just ahead of the cervix—say an oval surface as large or larger than a silver dollar—and unite its edges with sutures. This procedure accomplishes two objects, namely, *a*, it narrows the vaginal lumen and aids in lifting the bladder up. *b*, It directs the cervix backward toward the sacrum.

3. The third part of the operation is the most important, and that is to strengthen or stiffen the pelvic floor. For the past two years I have used Tait's "flap," and I am fully satisfied that I can do better with it than with any other method. I have in later work with the flap modified the method of incision. The modification consists in making deeper cuts in every direction and exposing wider areas of tissue. Now, deep anterior and deep posterior clips are made with the scissors, and results are better. I now separate the rectum and vagina from one to two inches, which gives very long flaps. From four to eight silkworm-gut sutures are used in uniting the wound. While a pupil of Mr. Tait I was surprised to see him only use three or four sutures in such large perineal wounds. My experience is to use six to eight, and insert them very deep in the exposed tissue, so as to bring a large amount of tissue in the middle line, so that the floor of the pelvis will be restored, so that the uterus will rest on the pelvic floor at right angles to the direction of the vaginal lumen. I use no dressings of any kind, and do not allow the perineal wound to be irrigated unless urine or fæces run over it. A small rubber tube should be introduced into the rectum, so that the gas will escape easily. In one of my cases accumulation of gas and its penetration through the recto-vaginal septum between sutures caused a recto-vaginal fistula. One thing should be insisted on, and that is, to leave the sutures in for at least three to six weeks. My observation in experiments on dogs convinced me that wounds do not unite strongly under three weeks, and they are very much stronger united in six weeks. I do not like to remove the sutures in a case of Tait's flap for a month to six weeks. Salts or oil is administered on the fourth day, and several times a day an enema is given. Early in doing Tait's flap for sacro-pubic hernia I did not make sufficiently extensive flaps, and in one case of prolapse it returned in ten months. Later results with Tait's flap, and denudation of anterior vaginal wall and amputation of cervix, gives excellent results. Repeated trials with Tait's flap and the other one or both procedures has convinced me that sacro-pubic hernia can be radically cured, and that pessaries should be abandoned in any case which offers no obstacle to operation, such as old age, debility, etc. Pessaries must be gradually increased in size to suit a case.

Conclusions. — 1. Sacro-pubic hernia is best cured by using from one to three operations at the same sitting.

2. If required, the cervix should be amputated, to destroy its pointed extremity, which acts as a wedge to open the vaginal canal.

3. A portion of the anterior vaginal wall should be denuded and its edges united. The object of this is to force and direct the cervix toward the sacrum and narrow the upper half of the vaginal wall, also to elevate the bladder

4. The third step is to stiffen the pelvic floor—to restore the pelvic floor and also the obliquity of the vaginal canal. So far I have had the best results by the use of Tait's flap operation for this purpose. The front and back cuts should always be employed in sacro-pubic hernia.

5. The sutures should not be removed before four to six weeks. The patient should remain in bed at least three weeks. Wounds do not heal very strongly before four weeks and are much stronger after six weeks. No dressings or vaginal irrigations should be used. The legs should be tied firmly together. It may be observed in this operation that the direction of the vaginal lumen and the cervix must be as much at right angles as possible to insure final success; in short, to imitate original nature.

ON THE TREATMENT OF SEMINAL INCONTINENCE.

By L. HARRISON METTLER, A.M., M.D.,
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THE cure of few troubles affords more complete satisfaction to both patient and physician than that of seminal incontinence. A persistent effort is demanded of the latter, and a sincere desire for relief is necessary in the former. A man's virility is usually of such transcending importance to himself, and the imaginations of most men are so wrought upon by the disastrous results of spermatorrhœa portrayed in the clap-trap literature of special nostrum venders, that one's depth of despair is only equalled by the intense gratitude for the relief obtained. Seminal incontinence is too often injudiciously or indifferently treated. In the first place, it should never be forgotten that the seminal loss is not a disease, but a symptom of a number of possible defects having other symptoms as well. In the second place, as a kind of corollary to the former statement, it should be remembered that no two cases can ever be treated exactly alike. The variety of its causes, the differences in its character, and the peculiarities of the patients afflicted, presuppose for it a varied therapy.

No one will deny that seminal incontinence is essentially a motor neurosis. Ah! that happy word neurosis. What a poverty of knowledge it conceals! what a wealth of ignorance it reveals! When at last we are driven to cover, how safe one feels to call an unknown and unexplained disease a neurosis. What is a neurosis? So far as I can comprehend, it seems to signify an abnormal expression of nerve-force, an unaccountable activity in the function of nerve centres. Apparently this activity may be more or less than what obtains in health, but it seems always to be in the line of the normal function. But why are not all nervous affections, organic as well as functional, neuroses? A diseased sensory centre, for instance, never reveals motor symptoms, though every kind of organic lesion may disturb more or less the normal function of that same centre. To call a disease a neurosis is to confess that it has an organic cause of which we are still ignorant. The origin of the neuroses is usually reflex, and insanity from a mental shock is as much a neurosis as headache from an eye strain. As our knowledge of pathology increases, the list of so-called neuroses will proportionately diminish. It would be fortunate for medicine if our knowledge of the physical bases of all troubles were sufficiently exact to enable us to abolish entirely so vague and inconsistent an expression as a "functional disease."

The causes of seminal incontinence are readily discovered if the patient is candid in his admissions and the physician searching in his examination. Patients most frequently exaggerate their trouble. It is physiological for an adult to lose a certain amount of semen three or four times a month. Usually this happens at night, as the result of an erotic dream, and is accompanied with an erection. We have all seen cases unnecessarily alarmed at this, and it is always a pleasant duty to allay the fears of such individuals. With men of robust constitutions the loss of semen every few days is physiological rather than otherwise. The same is true of those who lead continent lives, or suddenly cease a course of excessive sexual indulgence.

Of all the causes of seminal incontinence, overstimulation is the most common. Masturbation, excessive sexual intercourse, reading of lewd literature, filling the mind with sensual images, are some of the more ordinary means of overstimulation. One of my patients was a young Englishman who had been taking a cold spinal douche every morning. The cessation of this habit put an end to the spermatorrhœa. Masturbation is a cause often overlooked, for the reason that the patient denies the practice. It is not unwise to suspect this cause before all others, as it is by far the most common. A young man was recently brought to me by his mother because he was not seemingly improving under the care of his former physician. He was a bright and intelligent college lad, about eighteen years of age. He was sallow in appearance and extremely irritable in disposition. His pulse beat regularly, 130 to the minute, as I found after keeping him quiet a long time in my office. Having several weeks before undergone tonsillotomy, he said his physician attributed his condition to general debility, and prescribed a tonic and throat anodyne. Asking the mother to step out of the room, I charged the young man with masturbation. After a moment's surprise and hesitation, he freely admitted the fact, and declared he was so ashamed of the habit that he had never told anybody of it before. His further confession showed that he had been a confirmed masturbator for a number of years, and that he had nocturnal emissions without erections. In such cases I find that the only way to secure a confession is to charge the patient with the fact, as though it were self-evident and concealment quite impossible. I have noticed that a frequent course of seminal incontinence is the ingestion of large draughts of fluid just before retiring, together with the habit of sleeping upon the back beneath warm covers. I recall one of many instances of this that came to me in great alarm. The discharge was slight, and a mild tonic with the regulation of the patient's sleeping habits resulted in a cure. I have seen an enlarged prostate, a stricture, an elongated prepuce, hæmorrhoids, and constipation, all give rise to seminal incontinence. When advanced in years, many men attribute the discharge to their age, with its attendant weakness and the diminution of sexual intercourse. In these cases an opinion ought never to be given without an examination of the prostate gland. Prostatorrhœa is not infrequently associated with seminal incontinence, especially as the posterior urethra is more or less inflamed and irritated near the openings of the ejaculatory ducts. Vesical calculi, fissure of the anus, and ascarides should always be remembered as possible causes. Any lesion that awakens an undue excitability of the genito-urinary centre in the lumbar cord, such as trauma, incipient ataxia, local meningitis, or hemorrhage, may be the origin of the trouble. Cerebral weakness and psychic influences that remove the inhibitory control of the mind, such as senile dementia and insanity of various forms, may produce it. Many instances of psychopathia sexualis, cited by Krafft Ebing, were troubled with unnatural seminal losses, and the possibility of some similar cause should always be remembered in every case not otherwise explainable. In these as well as in other weakened states of the system, the mere presence of the opposite sex, amatory conversation, shampooing of the head, and the exhibition of a female fetich, are all capable of producing an involuntary emission. It requires much shrewdness to discover the neuropathic trouble underlying these simple exciting causes, for the patient is ofttimes ashamed of his unusual sensi-

bility, and strives hard to conceal it. It is these neuropathic cases that become so hypochondriacal and need the most encouragement. With them the disease is the result of the nervous disturbance rather than *vice versa*.

It seems to me quite needless to subdivide seminal incontinence into different varieties, as some writers have done. These subdivisions represent merely different degrees of the same trouble. The nocturnal is not essentially different from the diurnal variety, though it is apt to be more severe. The momentary environment of the patient obviously modifies the severity of the discharge, but that is no direct evidence of the severity of the disease. Each case must be studied in its entirety, and its symptoms taken *en masse*, before a candid opinion can be given in regard to its prognosis. The only practical subdivision is into seminal incontinence, spermatorrhœa, and impotence, since one or all may be present in the same case. The semen consists of the products of several glands, and its loss is not indicative of so profound a disturbance as spermatorrhœa, though spermatozoids are always found more or less in it. Spermatorrhœa is a serious affection, and consists of the frequent discharge of the products of the testicles along with the semen. Sometimes the spermatic fluid is voided several times a day, especially with the acts of micturition and defecation. Impotence, or the absence of the power of erection, may be the result or mere accompaniment of seminal incontinence. It is usually associated with a profound degree of functional disturbance of the genital apparatus, and the fear of becoming impotent is the most frequent source of alarm among those affected with spermatorrhœa. Aspermatism, however, is sometimes present when the power of erection is altogether perfect. Certain general symptoms point to spermatorrhœa. It may be surmised when the patient complains of great weakness, headache, dizziness, troublesome dreams, occasional chilliness, extreme restlessness, general irritability, inaptitude for business, difficulty of concentrating the attention, palpitation of the heart, heavy breathing, an unnatural distaste for society, and a marked depression of spirits; in a word, all the subjective symptoms of a severe neurasthenia. In addition to his feelings, the patient will show an outward irritability and restlessness, his physique is wan and wasted, his skin is not clear, but tawny and dark, his gaze is unsteady and "sheepish;" he is easily startled by a sudden noise; the pulsations of his heart are excessively rapid, and his countenance portrays distress and anxiety. He is subject to continuous slight tremors; he is irregular in his gait; and he assumes the manner and attitude of a hypochondriac. Such a picture would at once justify a suspicion of spermatorrhœa. Should the patient now admit the fact, his attendant may tell him that, as his trouble progresses, his mind will become enfeebled, his memory for names and places will weaken, his physical strength will continue to diminish, his muscular tissues will grow flabby, his appetite will become capricious, his eyesight dull, and his hearing annoyed with constant tinnitus, his headaches will be more severe, his nerves will lose their steadiness, his nights will be wakeful, and his whole being, both physical and mental, will become a complete wreck. As the moral treatment is so important in this trouble, we are justified in painting the ultimate result of the disease as black as possible. We should tell the patient that he runs the chance of losing his virility, that the spermatozoa will finally disappear entirely from his semen, while the latter will flow continuously from him; that he may become completely impotent, and that the consummation of marriage will be for him a thing totally impossible. If he be a masturbator, the lesson may be still further impressed by referring to the large number of cases of epilepsy and insanity attributed to this vile practice.

In marked contrast to this dark outlook, we may assure the patient that with persistent, well-directed effort, no case of spermatorrhœa can fail to recover to a large extent, and that nearly all can be restored to a condition of almost perfect health. Having thus plainly addressed the patient, especially if he be a young man, upon the fearful results of the disease if permitted to go unchecked, and at the same time encouraged him with the hope of a complete cure, we have already accomplished more than half of that hopeful result. I know there are medical men who say these cases are beyond redemption, and that they have not the will-power to persist in the treatment or to resist the baleful practices that originally brought them to their present state. I am persuaded that this is not true of the majority, for I find that most of them are sincere and determined in their desire to get well, and need only the proper assistance to enable them to do so.

First and foremost in the treatment of seminal incontinence, I place moral and hygienic means. Masturbators who cannot be wholesomely frightened with the ultimate results of their evil practices, are indeed hopeless cases. In every instance the cause must be discovered before any satisfactory progress can be anticipated. It would be absolutely useless to attempt moral or hygienic measures if the trouble were dependent upon an incipient ataxia, dementia paralytica, enlarged prostate, or stricture. A most exhaustive examination must be made for every possible reflex cause, and it must be removed before everything. Where these reflex causes are absent or have been entirely overcome, my chief reliance is upon the use of the bath, proper rest and exercise, the passage of the sound, and the administration of atropia and the bromides. I know of nothing so effective as these measures to conquer an obstinate seminal incontinence.

The patient should be instructed to avoid every kind of stimulus and over-fatigue. Anything that is likely to irritate the genital organs, such as tight clothing, bicycle and horseback riding, should be refrained from. His food should be of the blandest and most nutritious sort. Tea, coffee, alcohol, and tobacco must be abandoned for a time. He must take a light dry diet, and abstain from drinking large quantities of fluid before retiring at night. It would be a good plan for him to set the alarm-clock to awaken him a couple of times in the night to empty his bladder. He must sleep in a cool, well-ventilated room, with as little bed-clothing on him as possible. He should always occupy a bed alone, and cultivate the habit of lying upon his right side. It might be well to have the head of his bed turned toward the north, for there may be something in the notion that one sleeps better when the electric currents of the body and earth are parallel. A warm bath before retiring is soothing and tonic, while a rapid sponging of the whole person with cold water in the morning lends vigor for the day. Of course, all literature and pictures of a sensual nature must be rigidly eschewed; and to keep the thoughts pure and healthful, it would be well for the patient to acquire a hobby to which he could turn for amusement in his leisure moments.

In all cases of seminal incontinence there is more or less inflammation of the prostatic urethra and irritability of the whole canal. If this be severe the patient will describe a kind of burning, sore sensation at the end of the penis, and he will complain of the frequency with which he has to pass his water on account of the uncomfortable sensation of an over-distended bladder. If these inflammatory symptoms are at all pronounced, hot sitz-baths, soothing oleaginous injections, and the free use of cathartics would be advisable. Leeches or blisters to the perineum are necessary at times. I am convinced there is no better treatment for the irritability of the posterior urethra, after the more acute symptoms have subsided, than the frequent passage of the sound. At first this should be done at intervals only of two or three days, the instrument being retained for two or three minutes. Later on it should be introduced daily, and held in the urethra for fifteen or twenty minutes. In inexperienced hands a small soft sound or catheter should be first employed, and larger ones used as the mucous membrane becomes more tolerant. Better, however, than the soft

instruments are the steel sounds, when carefully introduced, since they are less painful to pass and are more vigorous in their therapeutic action. The resisting contact of a solid body against the mucous membrane of the urethra greatly lessens its sensibility, while the gradual increase of the size of the instrument as the treatment proceeds, helps to relieve the congested blood-vessels. If there be any strictures present, as there are apt to be in all old cases, these, as well as the exudative thickening of the urethral membrane, are more or less reduced. I wish to recommend most emphatically the use of the bougie in the treatment of seminal incontinence. If there be any pronounced impotence of a neurotic origin, the passage of the feeblest possible electric current through the steel sound while it is *in situ* will in some cases prove beneficial, but only the mildest currents should be employed. This, however, as well as Trousseau's rectal pessary, at one time so popular, will rarely if ever be needed, since other means are quite as effective.

Without the measures already recommended, the use of drugs alone will surely end in failure. It is astonishing how few of the many medicaments suggested for this trouble are really efficacious. Lupuline, cimicifuga, ergot, camphor, conium, and similar remedies have seemed to me to afford only a temporary relief, if any at all. Atropia, the bromides, and strychnia are the medicines I place most confidence in. Of these, atropia stands by all odds at the head. By checking the activity of the seminal glands the alkaloid of belladonna enables them to recover their wonted tone and function. A pill containing gr. $\frac{1}{80}$ or gr. $\frac{1}{50}$ of atropia should be administered every night at bedtime, so that the patient may sleep through the unpleasant sensations which this drug sometimes gives rise to. So satisfactory have I found the use of atropia in this way that I would rather discard every other medicine than it. Sometimes it is well to exhibit, together with the night pill, another in the morning containing a smaller quantity of the drug, say gr. $\frac{1}{200}$ to gr. $\frac{1}{100}$. While employing this remedy the attendant must, of course, closely watch the state of the pupils as a guide to the quantity being ingested. The bromides are frequently effective, but they must be given in massive doses. The potassium bromide may be administered in drachm or drachm and a half doses at bedtime, and diminished upon the first indications of bromism. This salt alkalinizes the urine and blunts the reflex irritability of the spinal cord. At times the other bromides are admirably borne. Some patients, especially the neurasthenic ones, tolerate the mono-bromide of camphor in five- or ten-grain doses. I have no experience to confirm the high recommendation by Hecquet of ferric bromide in three- and five-grain doses. In anæmic cases this would doubtless be a most eligible form in which to administer the bromide. Antipyrin, cocaine, tincture of hops, and dulcamara are all anaphrodisiacs, more or less valuable in neurotic cases. Ergot has been highly lauded in the relaxed condition of the genital organs associated with a continuous discharge. I have not seen the permanent good results, however, that have been claimed for it. Where there is a deficiency in the nervous tone I find the strychnia meets the demand most completely. This powerful spinal cord stimulant should not be considered until all the signs of inflammation and irritability have been removed, and the patient's general physique indicates a return to its former vigor. In doses of gr. $\frac{1}{60}$ to gr. $\frac{1}{30}$ it then acts most happily in restoring the normal functions of the genital glands. Of course the use of iron, especially the tincture of the chloride, arsenic, cod-liver oil, and corresponding systemic tonics, will commend themselves in properly selected cases. The patient's general health must be built up in every way so that a strong constitutional background may be afforded for the improvement of the genital functions. Electricity is a valuable agent in this connection, especially when applied in the manner of general faradization and central galvanization with mild currents.

I have never found it necessary to use other local means of treatment than the bougie; hence I will say nothing of the various injections proposed containing nitrate of silver, tannin, hydrastis, etc. Such injections ought always to be used with the greatest caution, as strictures, impotence, and even death have been caused by them when too strong. They are not only troublesome to carry out perfectly, but I believe are less effective than the earnest, persistent use of the sound. I am assured that with patience and perseverance few cases of seminal incontinence can resist the combination of moral, hygienic, instrumental, and medicinal measures outlined above.

COLUMBUS MEMORIAL BUILDING.

Clinical Department.

GENERAL ANÆSTHESIA.

BY HAZLE PADGETT, M.D.,

COLUMBIA, TENN.

SAM P—— (colored), forty-two years of age, day laborer. Family history negative. Previous to last February never had any sickness, and at that time he began to complain of an uneasy (pain) feeling about both ankles, and this pain gradually extended up both legs, and he then felt it along the upper part of the crests of the tibiæ and slightly around knee-joint. No pains anywhere else. The thing that attracted his attention was a little inco-ordination in walking, which he attributed to rheumatism, just supposition on part of patient, as no physician had ever seen him till I saw him several months after onset of his trouble. When I saw him, about May 1, 1893, I found him up and able with the aid of a stick to walk around the room. No pains in any part of body. All joints in a healthy state. In examining his sensations I found that he had a general anæsthesia of the cutaneous surfaces, could not feel the pricking or sticking of any sharp instrument except in a very few isolated spots, and only then when firm pressure was made; and it was impossible for him to locate place of contact. His sense of pressure was very deficient. The mucous membrane of mouth was anæsthetic, so he could not tell what he was eating, nor could he feel the prick of a needle. The nasal mucous membrane was also in an anæsthetic state, so that tickling the nose was not noticed by patient, and even the conjunctivæ were so anæsthetic that touching and rubbing them with the end of a finger did not elicit any manifestation of feeling. Had incontinence of urine, and when his bladder became filled had no desire to micturate. No sensual desire, penis and testicles anæsthetic. No control over bowels when the desire to defecate came, and many times no such desire ever came. All reflexes, except iris, were markedly increased, and, in fact, ankle clonus so much so that you could almost get paradoxical contraction. Pupils responded to light very slowly, and when I first saw him left pupil was a little larger than right, but that soon passed away. There was no paralysis of any muscle or group of muscles, and eyesight was good. Heart and lungs normal. Abdominal viscera normal. No albumin or tube casts in urine. No fever at any time since I've seen patient. Cerebration is perfect. Patient has never been confined to bed, sleeps well, good appetite, and no trophic changes anywhere. The diagnosis of this case is easy, but the question of its exact etiology is very interesting. You are familiar with the methods of investigating nervous diseases. This patient has a general anæsthesia. Where is the lesion? You know that a wide-spread peripheral neuritis will produce a general anæsthesia, but this patient has no neuritis. Also a wide-spread degeneration of brain cortex, but his cerebration is perfect in every respect and there are no hysterical symptoms. A lesion in the posterior third of the internal capsules of both hemispheres will produce an organic general anæsthesia, and here is the place, in my mind, where the lesion producing this general anæsthesia is situated. Theoreti-

cally a spinal general organic anæsthesia is possible, but in order for it to involve the face the lesion must be in the medulla oblongata, and here you would have involvement of vital centres, and, as was stated, patient has no abnormal action of heart or lungs. The exact cause of this trouble is unknown to me.

THE ABORTIVE OR NUTSHELL TREATMENT OF DIPHTHERIA.

By JOHN T. DE MUND, M.D.,

RIDGEWOOD, N. J.

More than three decades of experience and close observation enables the writer to substantiate these subsequent and most satisfactory conclusions. The simplicity of a thing is often as beautiful as the conception thereof. So we take sulphur and "sulphize" the patient and all contiguous contagiousness. The local or topical application of sulphur, by dusting it upon the diseased part every half-hour, or hour, day and night; also a suspension of sulphur in water, to be used as a gargle as frequently, is of paramount importance. Spraying the throat is of no account. In infants and small children that cannot gargle, dust the part freely and often with sulphur. The burning of sulphur upon live coals, every six hours, in the room or rooms, should not be neglected. So much for the local or topical medicament.

For internal use, adult (proportion the dose for children and infants) give the following:

R.	Tr. ferri chlor.	ʒ ss.
	Spts. minderus	ʒ iss.
	Glycerine	ʒ j.
	Tr. aconitia	♏ ss.
	Aq. font q. s. ad	ʒ viij.

M. Sig.: Shake well. Teaspoonful every half hour for several doses, then every hour or two, day and night.

A relay of nurses is an absolute necessity. Iced milk and lime-water, twelve to one, *ad libitum*. Brandy as the case necessitates. Last and not least, and not to be forgotten, a large dose of hydrarg. chl. mite., preceding all other internal administration.

By this method the onus is simplified, the nidus is destroyed, and the lesion is jugulated.

THE USE OF HYDROGEN DIOXIDE IN THE PERITONEAL CAVITY.

By FREDERICK H. WIGGIN, M.D.,

NEW YORK.

In a paper entitled "Intestinal Obstruction, Diagnosis and Treatment," which was read at the centennial meeting of the Connecticut Medical Society, at New Haven, May 25, 1893, and printed in the Medical Record on July 23d, I called attention to the use of hydrogen dioxide for the purpose of disinfecting the abdominal cavity in cases of septic infection, having used it largely in surgical work, and found it non-irritating and more efficient than anything else in sepsis. At the time the paper was read I had only used it once in a case of septic peritonitis following a perforation of the intestines; the patient, however, dying soon after the operation, no deduction could be drawn from the use of dioxide.

At this time I wrote to several prominent surgeons, asking their experience, if any, in the use of dioxide in the general cavity; and their replies, with one exception, showed that the use of dioxide in the manner specified had not been attempted. In the excepted case, both patients operated on died shortly afterward.

Recently I have had occasion in two cases to use it, and instead of a weak solution have used it of full medicinal strength.

In the first case, September 6th, in the course of the removal of a purulent ovarian cyst, parts of the contents escaped into the general cavity. Half a pound of hydrogen dioxide of full medicinal strength was poured into the cavity, and the patient made a prompt and uneventful recovery.

In the second case, September 13th, a boy of sixteen, resection of the small intestine (Maunsell's method), an escape of fecal matter into the peritoneal cavity was followed by the use of a liberal quantity of dioxide, and although general peritonitis and fibrinous exudation in the intestine was present at the time, the peritonitis subsided, the temperature never rose as high after the operation as previous to it, and the boy up to date has made a good recovery. Both these cases are of too recent date for a detailed report at present, but will be given fully hereafter.

My reason for this hasty communication is that my recent experience proves that in dioxide we have a safe, non-irritating, and certain disinfectant for the peritoneal cavity, which ought to be universally known.

65 West Thirty-sixth Street.

Progress of Medical Science.

Therapeutic Effects of Altitude.—Dr. de la Harpe divides altitudes into three principal zones: (1) The sub-Alpine zone, between 700 and 1,300 metres; (2) the Alpine zone, up to 1,900 metres; and (3) the hyper-Alpine zone, above that height. The first of these is considered most suitable for invalids suffering from cardiac affections, atheromatous changes, those advanced in years, and excitable subjects, while a higher altitude gives excellent results in tuberculous, anæmic, and neurasthentic cases. With regard to the properties of the mountain air, the chief factors of the climate mentioned are: (1) The lowering of the temperature, at the rate of 1° for every 170 metres in the Alps; (2) the energy of insolation; (3) the dryness, and (4) the purity of the air; (5) diminished atmospheric pressure. Those unaccustomed to the climate of these altitudes must become acclimatized; the process takes some days, perhaps a week, during which the appetite increases, thirst is intense, respiration more frequent, the number of cardiac pulsations augmented, and the blood-pressure diminished. The quantity of air inspired increases, as also the amount of carbonic acid expired. Insomnia is at times very troublesome. Frequent palpitations and dyspnœa occur, especially in cardiac, anæmic, and fatty subjects. Once acclimatization is complete the sleep becomes natural, palpitations cease, respiration and pulse fall to normal, but the quantity of inspired air is slightly increased, while the blood is found to contain more corpuscles. This diminished atmospheric pressure exerts an influence on the circulation, accelerating it and raising the blood-pressure and tension of the pulse; the blood-vessels are fuller and nutrition is improved, thus affording excellent conditions for the treatment of anæmia and feeble cardiac innervation. The action of the dry and pure (free from microbes) air makes itself especially felt in certain pathological conditions; for example, the pus of suppurating, tuberculous, or pleural cavities undergoes diminution, the favorable process of sclerosis of the tissues surrounding the cavities is accelerated, and the cold of high altitudes rendered more supportable.—*British Medical Journal.*

The Treatment of Erysipelas.—Kolaczek (*Centralbl. für Chirurgie*, 1893, No. 28, p. 601) calls attention to the advantage of an occlusive dressing in the treatment of erysipelas, particularly as seen in surgical practice. For this purpose he employs what he designates as "rubber paper," which at first he moistened with a five per cent. solution of carbolic acid and had extend well beyond the margins of the affected surface. Latterly he has discarded the use of carbolic acid in this connection,

as he found that it caused the paper to adhere to the skin to which it had been applied, so that its removal was attended with difficulty and distress. Over the dressing is placed a compress of cotton and a firm bandage. The dressing is changed after the lapse of twenty-four hours and a larger piece of rubber or additional strips are applied if the process has extended. The efficacy of the treatment is supposed to depend upon the suppression of the perspiration that results, the unexcreted metabolic products being thought to have a destructive or inhibitive action upon the streptococci. The success of the procedure depends upon the accuracy of the approximation of the dressing to the surface.—*Med. News.*

The Passage of Fat into the Urine.—The conclusions drawn by Chabrié from the facts which he has gathered are, that the passage of fatty substances into the urine may be due to a variety of causes which he tabulates under four heads:

1. The presence in the blood of a parasite, the filaria sanguinis hominis. Investigation has shown here that the function of the kidney relative to the secretion of its normal constituents is not modified.

2. Certain pathological states, and in particular that of a form of Bright's disease. The lipuria is always very light.

3. The ingestion of quantities of fat.

4. Intestinal retention. In this case it is necessary to distinguish between the effects produced by an experimental or pathological ligature in man or in the dog. In the first, a retention of twenty-four hours is sufficient to produce the passage of fat into the urine; in the latter forty-eight are required. The author's theory is that this form of lipuria is produced by the resorption of bile, and he has produced it by injection of bile into the abdominal cavity of animals. Chyluria may be, therefore, a disease of the liver.—*Journal of Cutaneous and Genito-urinary Diseases.*

New Mode of Demonstrating Microbes which do not Stain by Gram's Method.—Dr. Nicolle describes a method of demonstrating some bacteria which are otherwise difficult to differentiate. The method depends on the property possessed by tannin of converting methylene blue fixed in the preparations into an insoluble form. The method of procedure is as follows (*The British Medical Journal*): The sections are hardened in alcohol, and stained for two or three minutes in Loeffler's or Kuhne's blue; they are then washed in water, after which they are passed through a 1.10 solution of tannin, the action of which is almost instantaneous; the sections are then washed again in water, dehydrated, cleared in oil of cloves or bergamot, and mounted in xylol-balsam. A greater contrast can be obtained between microbes and tissues if the sections, after being stained, are slightly decolorized by immersion in a feebly acid water. The histological elements are thereby more decolorized than the bacteria. In this manner the author has succeeded in obtaining excellent results in sections of glanders, typhoid, hog cholera, chicken cholera, soft chancre, etc., a thing which is by no means easy when the old methods are employed.

Gall-stones in the Intestines.—There are a large number of cases on record in which obscure cases of intestinal obstruction have proved to be due to the impaction of gall stones at some part of the intestinal tract. These cases are interesting from several points of view, and especially on account of the difficulty in diagnosis which many of them present. Of course when one has to do with a patient who is known to have suffered from jaundice or from occasional attacks of biliary colic, the possibility of the obstruction being caused by the impaction of such calculi must occur at once to the surgeon; but, except in cases where the obstruction is due to the agglomeration of several freshly formed calculi, there is often a curious absence of previous symptoms pointing to calculous formation. Yet in these very cases the stones are frequently of considerable size, so large in fact that they could not possibly have passed through the common bile duct by any conceivable degree of dilatation. They have indeed ulcerated through the gut by a slow necrotic process devoid of painful manifestations. Under these circumstances an exact diagnosis must be difficult, not to say impossible. The matter is, however, of some importance, because one is, of course, anxious to spare the patient the danger attending so serious an operation as laparotomy with incision of the gut, the more so seeing that a very large proportion of such cases are amenable to medicinal and general measures. It is probable that the failure to elicit the history of previous symptoms of hepatic colic is sometimes due to the inquiry being restricted within too narrow limits. It is indeed necessary to go far back in the patient's history to obtain the desired date, which may have been forgotten or overlooked. Fortunately the effect of surgical intervention in the more urgent cases is very satisfactory, provided it be had recourse to in good time.—*Medical Press.*

Rheumatism and Arterio-sclerosis.—Dr. Manteuffel discusses the relation of so-called rheumatism in the lower extremities and vascular disease. The pains complained of are situated in varying parts of the feet and legs, the feet are cold, and numbness may be experienced. The skin looks pale, and is often desquamating in minute scales. Sometimes patches of characteristic erythematous œdema may be seen with an increase in the symptoms above described. In these cases the pulses should be carefully examined. Differences may be present, and the arteries may be found degenerate. These manifestations are not to be confounded with articular affections, nor with sclerosis of the veins. No varices or pigmentation are present. Localized œdema is, of course, not to be mistaken for more general œdema due to venous obstruction. It may be difficult to distinguish this affection from neuralgia, and in cases of arterio-sclerosis the nerves may also be involved. For proof from morbid anatomy the author refers to cases of angio-sclerotic gangrene slowly developed and preceded by pains. He cites a case of gangrene in a girl, nineteen years of age, with diseased arteries, in which rheumatic pains had long preceded the gangrene. As to whether these rheumatic pains are a preliminary stage to gangrene cannot be denied with certainty in some cases. If the collateral circulation is insufficient, gangrene occurs, but this last stage is often not seen. The author warns against local massage in these cases of arterio-sclerotic rheumatism. Some patients whose disease is written of as rheumatism, or even hysteria, thus really suffer from arterio-sclerosis.—*Deutsche Medicinische Wochenschrift.*

Typhoid Empyema.—Dr. Weintraud records a case of empyema beginning in the second week of an attack of typhoid fever of moderate severity. The patient was a young man, nineteen years of age, and he made a good recovery without operation, although, at the beginning of the fifth week, he was seized with symptoms which pointed to peritonitis. At the end of the fourth week an exploratory puncture was made, and a syringeful of yellow, viscid, slimy pus was drawn off. Microscopical examination and cultivation experiments showed that this pus contained only a small bacillus, which was recognized as the typhoid bacillus. Seventeen days later, and after the patient had recovered from the symptoms of peritonitis, a second exploratory puncture was made, and similar yellow pus drawn off; it was again found to contain the typhoid bacillus in pure culture. The virulence of the bacilli was tested on both occasions on mice, and the interesting fact appeared that those withdrawn by the earlier puncture were far more virulent than those obtained on the second occasion, two weeks and one-half later. Weintraud points out that the case affords fresh proof of the fact that the typhoid bacillus is a pyogenic organism, and of the truth of the view expressed recently by Valentini and by Lorigo and Pensuti, that the bacillus

may be the direct cause of the production of empyema as a complication of typhoid fever.—*Berliner Klinische Wochenschrift.*

Profound Cerebral Symptoms in Adults from Indigestion.—That profound cerebral symptoms may appear in adults, as well as in children, as the result of errors in diet, is well illustrated by two cases recorded by Cortial (*Archives de Méd. et de Pharm. Milit.*, No. 7, p. 56). One occurred in a man, twenty-three years of age, who fell unconscious upon the street and was thought to have suffered a cerebral hemorrhage. About six ounces of blood were withdrawn and an ice-bag was applied to the head. All four members were agitated by movement, which was a little more marked upon the right than upon the left; the head was in constant motion; the eyes were turned upward and inward; the pupils were contracted; trismus was present; the pulse was rapid and regular; fever was moderate. The sphincters were continent; there was no hemiplegia The stomach was distended, and, notwithstanding the state of consciousness, pressure evidently induced pain. As cerebral hemorrhage is exceptional in young persons, alcoholism, indigestion, insolation, and heat-exhaustion were considered. The evidence pointed to indigestion as the cause of the symptoms, and, accordingly, a further bleeding of ten ounces was practised; dessertspoonful doses of infusion of tea were administered; a purgative enema of senna was given; the epigastric region was gently cauterized; and massage of the abdomen was from time to time performed. In a short while the patient began to vomit, bringing up the remains of some salad taken the day before; copious stools also followed. Consciousness was only gradually resumed. It was, however, two weeks before the man was quite restored. He related that he had not been exposed to the sun or to intense heat, but that on the day before his attack he had partaken of some salad, and that on the day of the attack he had eaten nothing, on account of a severe headache and a feeling of malaise.

The second case occurred in a vigorous man, twenty-six years of age, who was found unconscious, with eyes fixed; pupils contracted; respiration deep and a little stertorous; marked agitation of all four members, but especially upon the right, and without contracture; full but not rapid pulse; warm skin and hot head. He had been in good general health, suffering, however, with an attack of migraine about once a week. On three successive days there had been epistaxis. Stool had been painful and difficult The man had gone to bed without making a complaint, but toward midnight he was heard to groan, and then was found unconscious and in active convulsive movement. Other attacks occurred and were seen to be epileptiform in character. The parents asserted that the man had never had such attacks before. Indigestion being suspected, examination showed the abdomen to be distended and the percussion-note over the stomach to be dull. Strong pressure in the epigastrium appeared to induce pain and to excite a convulsion. After a bleeding of sixteen ounces the patient opened his eyes and became conscious. Abundant vomiting followed the ingestion of several cups of weak infusion of tea, bringing up imperfectly masticated meat. Purgatives were also administered, and in the course of a few days the patient was restored to his usual health. The distinguishing features of cases in which indigestion gives rise to cerebral symptoms are the fulness of the abdomen, with pain on deep pressure, and absence of modification of the respiration.—*Med. News.*

The Treatment of Sciatica.—Dr. E. Valentine Gibson has published an analysis of one thousand cases of sciatica, with special reference to one hundred cases treated by acupuncture. The results on discharge from the hospital of one hundred consecutive cases of sciatica treated by acupuncture are as follows: 56 per cent. were cured, 32 per cent. were much improved, 10 per cent. were improved, and in 2 per cent. there was no improvement. These results are satisfactory, considering the chronic nature and the severity of the majority of the cases. All these were treated by acupuncture, and they all used the Buxton thermal water, which has such a great reputation for the absorption of inflammatory products. Acupuncture the author considers very valuable. Dr. Gowers states: "Simple acupuncture along the course of the nerve has been recommended; it gives temporary relief, as does any superficial pain, but the cases are very few in which it has a permanent effect." The writer believes that Dr. Gowers refers to cutaneous acupuncture and not to acupuncture of the nerve itself, which was the method employed in these cases. The patient can always tell when the nerve has been pierced by pain shooting down the leg. The needles ought not to be left *in situ* for any length of time, but withdrawn immediately, as unless this is done severe pain is often caused on their withdrawal, and no better results seem to follow this line of treatment. A single spear-pointed needle two and a half inches long is all that is required, as the depth of tissue to be pierced can be regulated according to the situation and the development of the patient. If the nerve is not pierced on the first introduction of the needle, it can be partially withdrawn and entered again at a somewhat different angle, and in this way the nerve may be pierced in several different places with but one cutaneous puncture. The nerve should be pierced about five times over the parts where there is pain on pressure. The external popliteal nerve to the inner side of the biceps tendon may also be pierced if it is painful, and as it is not covered by muscle this can easily be done. There is often pain situated on the outer side of the leg, which in all cases is probably due to "referred pain." The musculo cutaneous nerve may be punctured along the whole of its course, but being of small size and lying deeply, it is naturally more difficult to pierce; but, even if the nerve is missed, the needle, passing in close proximity, must exert counter-irritation. These cases, without exception, he considers were due to an inflammation of the nerve-sheath, this affecting primarily the adventitious tissue, and in more severe cases spreading into the interstitial tissues—a perineuritis and an interstitial neuritis respectively. This condition would account for the various symptoms, sensory and trophic, such as pain, tingling sensations, and the wasting of muscle supplied by the affected nerve, and also those supplied by the small sciatic, when the disease affects the lower portion of the sacral plexus. The author, in view of his lack of opportunities for post mortem examination, quotes from Dr. Gowers: "In most cases that have been examined distinct evidence of neuritis has been found, chiefly involving the nerve-sheath, but extending in some cases into the interstitial tissue. In recent cases there are small hemorrhages, and in seven cases similar but slighter alterations in the interstitial tissue with secondary damage to the nerve-fibres. The signs of inflammation are most intense at the sciatic notch and opposite the middle of the thigh. They may be limited to one or both of these places, or they may be greatest there and extend in slighter degree over a considerable tract of nerve." Considering this to be the true pathology of sciatica, the treatment by acupuncture is a rational one, more especially in the earlier stages of the disease; but even in the later stages puncturing the thickened nerve-sheath may promote absorption. If the nerve is pierced in a number of places over the inflamed area, where there is congestion of vessels and consequently exudation of serum and small-celled infiltration, it must be given an outlet, however small, to more or less of the exudation; also dilated blood-vessels must be pierced, thus relieving tension in two ways and favoring the process of absorption. Rest is necessarily most essential, as it is in other inflammatory conditions. A rheumatic or gouty diathesis should be treated by appropriate remedies, as they are often a predisposing cause. The more chronic the sciatica the more difficult is the cure, as organization of the effused material must be a source of irritation and a nidus for subsequent relapses. In cases of secondary sciatica,

due to rheumatoid arthritis of the hip-joint, a slight temporary relief only is obtained by acupuncture, as the source of irritation cannot be eliminated. Whether this irritation is due to pressure of the enlarged capsule of the joint on the nerve or to the changes in the joint, giving rise to a neuritis of the nerve-fibres supplying the joint, and spreading from there to the trunk of the sciatic nerve, is a point requiring investigation.

In conclusion, if every case of sciatica, beginning acutely or subacutely, were to be treated by absolute rest, together with acupuncture, repeated, if necessary, at intervals of a few days, and at the same time any rheumatic or gouty tendency were treated by suitable remedies, the author does not think there would be the number of chronic and relapsing cases that one so often sees.—*Therapeutic Gazette.*

Ureterectomy.—Dr. Reynier reports a case in which he removed the whole of one ureter. The patient first came under treatment in April, 1892, when he gave a history of typhoid fever in February, 1891, and two months later more pain in the lumbar region, followed by albuminuria and then pyrexia (*British Medical Journal*). The urine was purulent at intervals, and micturition painful. At this time the existence of a pyonephrosis on the right side was diagnosed. On May 27th nephrectomy was performed, when the kidney was found to be a purulent cyst. The peritoneum was opened at the operation, but was returned without allowing local infection to occur. The ureter was fixed in the lower part of the wound. Fifteen days after the operation pus still flowed from the end of the ureter in the wound, the temperature still remained raised, and on cystoscopic examination drops of pus were seen exuding from the opening of the right ureter. Washing out of the ureter was next practised, but without any good result. A further operation was now performed. The lumbar wound was enlarged, and 12 ctm. of the upper end of the ureter removed. The fistula still remained and no good result followed. On November 18th an incision was made in the right inguinal region, and the peritoneum stripped up until the remains of the ureter were reached. It was dilated even to its junction with the bladder. The whole of the ureter remaining was now removed. On the following day pus had disappeared from the urine. On January 21, 1893, the patient was discharged completely cured. According to the author, this is the first case of complete removal of one ureter. He recommends that when ureteral accidents occur after nephrectomy, especially in tuberculous cases, the affected ureter should be completely removed by an inguinal incision and stripping up of the peritoneum.

Emol is the discretional name given by Dr. W. Allen Jamieson (*Brit. Med. Journal*) to a natural product, refined and purified by various intricate processes, but unsophisticated in any way. He has had the opportunity afforded of seeing the substance *in situ*, and of following all the stages through which it passes till it emerges as the delicate, soft, impalpable powder. The material from which emol is prepared is found in large quantity near Dunning, in Perthshire, where it occurs in close association with serpentine marble, chalcedony, onyx, and copper. It has been examined and analyzed by Dr. Readman, F.C.S., who finds that it is allied to fuller's earth, yet is distinct from most, if not all, varieties of fuller's earth hitherto in the market. Emol contains steatite as well as silica, alumina, with a mere trace of lime, and it is probably to the first ingredient named that its peculiar properties, summarized in its adopted designation, are due. The delicate pink tint which it exhibits is owing to the presence of a very minute quantity of oxide of iron. When placed on the tongue there is an absence of the sensation of grittiness so perceptible when fuller's earth of the ordinary kind is tested in a similar way. The first effect noticed when a small quantity—say a teaspoonful—is mixed with a hard water, such as is met with in limestone districts, in a basin, is its immediate softening influence. Used in this manner with warm water it acts as a natural soap, cleansing the hands, and at the same time leaving them soft and smooth. The workmen engaged in its preparation found that their previously horny palms became so much altered by continued contact with it that they were no longer fit for active manual labor, assuming, as one of them remarked to me, a softness more like that of a lady's hand; they could not use their hands for any employment which exposed them to friction. This experience led Dr. Jamieson to try it for the purpose of softening and removing those horny accretions encountered in some states of keratosis of the palms and soles. For the treatment of these salicylic acid in some form or another has hitherto proved the most effectual agent, but its application is accompanied with considerable pain, though otherwise successful enough for a time, if not permanently. When, however, a magma of emol was made by moistening some with water, so as to form a paste, applying it pretty thickly, and preventing evaporation by covering with an impervious material, such as oiled silk or guttapercha tissue, the epidermic masses became softened and loosened, and could be peeled off in layers, eventually leaving the part so treated soft, smooth, and pink in hue. In this way he was able to remove the hard, horny epidermis in several cases of eczema of the palm and sole. One of these cases was that of a gouty lady, tall and stout, in whom many different methods of management had been before tried with but indifferent effect. In her case the subsequent application of unguentum vaselini plumbicum, spread on cotton, had the result of restoring a healthy cuticle, which enabled her to undertake a prolonged continental journey with ease and comfort.

Retention of Lochia.—Dr. Jacobsen has published a communication on lochio-metra, or distention of the uterus with retained lochia. A multipara did well for five days after normal labor. Then fever, rigors, and enlargement of the uterus occurred. The cervix was found to be stopped up by a tumor which was removed, the unfavorable symptoms ceasing directly afterward. The tumor formed a mass of whitish jelly, about as big as a middle-sized pear. Some young connective tissue and small vessels were found in it. Hence it was probably the remains of a large old coagulum, the result of hemorrhage at about the beginning of the third month of pregnancy. It is of interest to note that at that stage in previous pregnancies the patient had regularly aborted; but in this last pregnancy she had kept her bed at the same stage and warded off abortion. Notwithstanding the high fever which preceded the removal of the tumor, the fluid lochia which escaped afterward was neither discolored nor fœtid. The tumor had sealed it up. In reply to a question, Jacobsen stated that before the removal of the tumor the uterus stood high in the pelvis, whether the bladder were full or empty. Schräder attributed fever in childbed partly to exhaustion of the uterus after severe pains; absorption was then favored. When the uterus was at rest physiologically, it might hold putrid lochia without fever being produced.—*Centralblatt für Gynäkologie.*

Medical Treatment of Hæmorrhoids.—Dr. Paul Reclus (*Rev. Gle. de Clin. et de Thérap.*, April 5, 1893) details his mode of using cocaine in the treatment of hæmorrhoids. For the constipation he advises laxatives, enemata, and perineal fomentation with water at 50° or 55° C. (122° to 131° F.); he also suggests that before each passage a small piece of absorbent cotton, the size of a pea, which has been dipped in a two per cent. solution of cocaine, should be introduced into the rectum. Immediately after the defecation, the perineal fomentation should be repeated if there be pain, and another piece of cotton with cocaine introduced. If hæmorrhoids be voluminous and congested, Professor Reclus advises dilatation of the anus after the local application of cocaine, and injections of the same substance in the sphincter.

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SHOULD WOMEN SMOKE?

SOME years ago, under the stimulus of Mr. James Parton, there was much discussion over the questions, "Will the coming man drink wine?" and, "Will the coming man smoke?" Both these questions have been answered in the affirmative so far as the nineteenth century is concerned. A more serious question is now agitating the English public, and it is simply this: "Will the coming woman smoke?" It appears that the habit of smoking cigarettes is increasing among a certain class of English women, and we refer to respectable women; for the prostitute has always been addicted to the cigarette. There have appeared public defenders of the practice. The plea is that if men smoke, women ought to be allowed to do it also; that the habit, if practised at the proper places and times, is not an offensive or indelicate one, nor particularly injurious. Looking at the question from a purely medical point of view, we doubt if the practice of smoking will be sanctioned by science or experience. Tobacco is undoubtedly a depressing, though agreeable, poison. It is particularly injurious to persons of an emotional and over-sensitive nervous system, and hence it would harm more women proportionately than it does men. Aside from this, we regret to say that lovely woman is less to be trusted with narcotics and stimulants than man—and the latter animal is weak enough. Hence excess and abuse of the narcotic would be more frequent.

Perhaps most of our readers will think it foolish even to treat seriously such a proposition as that which we are discussing. But these are *fin de siècle* times, and no one knows what bizarre fashion may suddenly become the rage. Most emphatically we should say that the coming woman, as well as the woman who has already come, should not smoke. She can win the heart of the smoker, but she should beware of the smoker's heart.

THE NEW YORK INFANT ASYLUM AGAIN.

THE *Sun* publishes the following:

When eighteen physicians connected with the New York Infant Asylum resigned last May, because, as they said, they had been treated discourteously and unfairly by President Knickerbacker and the Board of Managers, the MEDICAL RECORD, in discussing the affair, said:

"In this case we do not see that any other course could be taken by the Medical Board: furthermore, it is difficult to see how any self-respecting physicians can take their place. Such a position is not and would not be tolerated by any Board of Visiting Physicians, however great the attractions of the service. We shall watch with interest for the list of gentlemen who accept the positions thus vacated."

It looks now as though the RECORD'S watch would not be relieved in a hurry. The first meeting of the Board of Managers of the asylum since the resignations were offered was held recently, and no physicians were appointed to fill the vacancies.

There is now but one visiting obstetrician where there were four, two visiting physicians for the treatment of diseases of children where there were five, one consulting obstetrician, no gynecologist, no orthopedic surgeon, no physicians for nervous or mental diseases or diseases of the throat, and no ophthalmic or aural surgeons. Heretofore several operations a week have been performed at the hospital at Tenth Avenue and Sixty-first Street, many in gynecology ranking among the most notable in the country.

There are, as will be seen, now only four physicians connected with the institution, and three of these were, we believe, members of the old board.

So far, it seems that reputable physicians have wisely fought shy of an institution whose executives have affronted and attempted to degrade the medical staff. We are convinced that the one obstetrician who accepted a place must have done so under a misunderstanding.

The issues in this case were very clear, but they might well be emphasized again. The medical board, without warning, was deprived of its right to nominate or have any voice in the appointment of its associates. Furthermore, attempts to secure an understanding were met with affronts and discourtesy by an ignorant and obstinate executive.

We have no doubt that in time the organization of the Asylum will be so changed that incidents such as have occurred in the past year will be made impossible. The institution is a useful charity, and its managing board contains many gentlemen who would not knowingly be a party to injustice and folly. But until some change is made, we can but repeat that self-respecting physicians will have nothing to do with it.

IMMUNIZING AGAINST YELLOW FEVER.

A GOOD deal of comment was naturally aroused by the report that Dr. Murray, of the U. S. Marine Hospital Service, who is stationed at Brunswick, Ga., had sent for his family to join him in the infected region. Such action would be likely to give confidence to many that the violence of the epidemic was abating. The true reason, however, is stated in a note from Dr. Murray to Surgeon-General Wyman, in which he says:

"I desire to have my three younger children, aged seven, eight, and thirteen, to be immunes as soon as possible to save them from annual scare and worry. My two older daughters, aged fifteen and seventeen, are immunes, but are now in college. I have perfect confidence in my skill, and do not fear that anyone will die if I treat them. In view of your telegram I have directed them not to come, not wishing to displease you, and if you forbid, will stop them. I consider the chance a lost one."

It is evident that Dr. Murray regards an attack of yellow fever as harmless as measles when properly treated. Such a view should be most consoling to those who are forced to remain in infected quarters and take the chances of the disease. The total mortality-rate in the present epidemic has been relatively low (about fifteen per cent.).

THE MUNICIPAL DISTRIBUTION OF HOMŒOPATHY.

Cleveland, O., seems to be the garden-spot of homœopathy if we may judge from the statistics given in *The Cleveland Medical Gazette*. Out of a total of 527 physicians, 139, or twenty-six per cent., are homœopaths. In a few Western cities, such as Cincinnati, Indianapolis, and Columbus, the percentage is about six, but in the majority the average is much higher. Thus Chicago has 348 homœopaths out of a total of 2,700, or twelve per cent.; Detroit, 59 out of a total of 482, or twelve per cent.; St. Paul, 26 out of a total of 200, or thirteen per cent.; Minneapolis, 46 out of 328, or fourteen per cent.; Pittsburgh, 54 out of 383, or fourteen per cent.; Allegheny, 17 out of 156, less than eleven per cent.; Philadelphia, 346 out of a total of 2,380, or fourteen per cent.

In New York City, the simon pure homœopath is rare, and very few homœopathic signs are to be seen. Among 3,400 physicians, probably less than ten per cent. are homœopaths, as against fourteen per cent. in Philadelphia, and twelve in Chicago. The disappearance of all strife between so-called schools has, no doubt, had much to do with this. The distinctions between the schools are daily becoming more nominal.

LIFE.

Many can recall the time, for it is barely twenty years ago, when scientific and public interest was much centred on the question what is "life," or what is the nature of the vital principle, if such a thing exists. Dr. Bastian, and Professor Huxley, Mr. Tyndall and various other eminent biologists and physicists were then very much in evidence, to say nothing of the theologians. It became pretty well settled at that time that there was no such thing as spontaneous generation, or that by no human means could chemical action be changed into vital action. The living, structureless ooze of the sea possessed some function which could not be imitated in the most richly equipped laboratory. There was some comfort in this to the conservative minds. On the other hand, it became generally acknowledged that the physical basis of life, that is to say, of vital activity, was, as Professor Huxley asserted, a protoplasm of some kind. Furthermore, physiologists very generally gave up the ancient view that life was dependent upon some special principle or force which entered into and acted upon the organism like a kind of *Deus ex machinâ*.

In place of this view, which was long and tenaciously held in particular by the Montpellier school, it was taught that vital activity was only another mode of energy; that it was derived from heat, electricity, chemism, motion, and was transformed into its equivalent during life and at death.

This, which was called the mechanical view of life, is the doctrine still adhered to and still taught. But it would follow that, if this is the complete solution of the question, life ought to be artificially produced. Man can transform heat to light, light to motion, motion to electricity, electricity to chemism. He has even succeeded in showing a practical identity in the energies known as heat, light, electricity, and magnetism. These are all but variations in the motion of the ether. But as yet science has made no progress whatever in transforming any phase of energy into vital activity. He cannot manufacture protoplasm. In his recent Presidential address before the British Association, Professor Burdon-Sanderson took up again the subject of "Life," and announced most positively the conclusion above stated. Philosopher, physicist, chemist, all are exactly where they were twenty years ago, and they have to fall back upon some theory of meteoric dust or extraordinary prehistoric cosmic conditions in order to explain the appearance of life upon this planet.

With science thus at a standstill we may the more readily pardon the intrusion of the imagination upon the subject of what is vital action; and Sir Benjamin Ward Richardson offers to the world in his "Æsclepiad" some interesting phantasies anent this subject. Sir Benjamin has a theory of nervous ether which will, he thinks, account for the vital phenomena of the nervous system at least. He assumes that there exists in this part of our anatomy a certain ethereal fluid which is secreted from the blood and which varies in tension, amount, and quality with the various changes of the body and its environment. In fact, Sir Benjamin's essays read like a modernized edition of an ancient medical classic. The inventor of this nervous ether has tried to condense it, bottle it, and even manufacture it, but, as he admits, so far without much success.

It appears to us that the ingenious editor of the "Æsclepiad" is calling up a ghostly fluid which unnecessarily complicates things. Life is a kind of chemism which is peculiar in that it transforms its energy not only into heat, motion, electricity, and chemical action, but produces in addition ethereal vibrations that are various and complex in their result. Nerve-currents, and the secretory and reproductive activity of cells are examples of this. As yet we can only suppose these to be modes of motion of the ether, and it is not necessary to invoke a new kind of fluid for the nerves, because, if we do, we will have a secretory and reproductive ether as well as a nervous one. The experiments which demonstrated that light was a form of electricity were brilliant, ingenious, and convincing. Perhaps some day we may be able to analyze the activities of the living cell, and measure its vibrations, but the problem is immeasurably more complex than that solved by Herz. And it is meanwhile very restful to believe that the Lord himself first infused into dust the breath of life. For undoubtedly He did.

Tannate of Mercury being unchanged in the stomach, and only decomposed after it enters the alkaline contents of the small intestine, is incapable of producing gastric irritation, and since we calculate to introducing something like two ounces of mercury by way of the stomach during an antisyphilitic course, it becomes very necessary to give it in such a way as not to upset the stomach, and hence our calculations.—Allen.

News of the Week.

Death of Dr. E. A. Maxwell.—Dr. E. A. Maxwell, who died September 25th, was graduated from the Bellevue Medical College in 1869. Soon after his graduation he was appointed visiting physician to Randall's Island and Charity Hospitals, and for fifteen years he served as pathologist to the latter institution. At the time of his death he was consulting physician to Randall's Island Hospital, and consulting pathologist to the City Hospital.

The Académie de Médecine of Paris has had two successive sessions without being able to secure a communication to be read. The attendance was very small. It is proposed to add to the membership in order to get some life into the ancient institution.

Collodion in Hemorrhoids.—Dr. Becelaere, of Detroit, Mich., writes: "A friend has to-day called my attention to an article by A. H. S——, criticising the use of collodion, which I recommended in a paper on 'Hemorrhoids,' published in your MEDICAL RECORD for July 29th last, on the ground that 'solidified collodion is simply gun cotton' (*sic*). It never struck me that gun-cotton and collodion were identical. I always held, and still believe that pyroxylon is one thing, and its ethereal solution another. Would anyone, for instance, claim that rosin and varnish are identical? I know from actual experience that gun cotton will 'fuse,' if touched with a burning match, and also that thoroughly solidified collodion will burn under identical circumstances if presented edgewise. I am, however, in position to maintain that a thermo-cautery knife at a brown heat will go through spread, solidified collodion very much the same as through a piece of bacon, and this without causing the least 'fusing' or igniting the protective layer. If A. H. S—— will take the trouble to repeat the experiment for himself, he will at once be convinced that 'solidified collodion' is not 'simply gun-cotton.'"

Immunity from Scarlet Fever by Inoculation of Blood serum.—Dr. A. S. Ashmead, of New York, reports (*University Medical Magazine*) the case of a boy who had scarlet fever. On the seventeenth day Dr. Ashmead inoculated with his blood-serum, ten drops, his sister, a healthy girl, who had played with him, kissed him, and been in close personal contact during the disease. She did not become infected. Dr. Ashmead comes to the following conclusions: It is probable that the first inoculation of immune blood-serum gave protection to the girl. Therefore, there was no necessity for repeated inoculation. I think I am justified in believing that the assertion of Ogata and Jasuhara, of Tokio, that even one drop of immune frog's blood, or half a drop of immune dog's blood, is sufficient to protect a mouse from the fatal effect of an anthrax inoculation, states at least a probable fact. The streptococci had nothing to do with the disease. The boy's serum, on the eighteenth day, when inoculated into his sister, was not infectious. The albumin of scarlatinal nephritis is not toxic. The inoculation of scarlet fever with immunized blood serum is not curative. The inoculation, without infection of the girl, with ten minims of blood serum from a second boy, who had not been immunized, apparently proves the immunity conferred by the first inoculation. I add two practical suggestions: The application of a blister over the kidneys in scarlatinal nephritis is followed by good effect. The earliest symptom of improvement in this complication is the appearance of urates and uric acid crystals in the urine.

Danger in Pencils.—It has been the practice in the public schools of St. Paul, Minn., for the janitors to collect all the lead and slate pencils after school hours, and distribute them indiscriminately in the morning. Health Commissioner Hoyt has requested that hereafter each pupil retain his own pencils, as there is reason to believe that diphtheria and other diseases have resulted from children putting in their mouths pencils that have been used by others.

A Wedding Delayed by a Misfit Leg.—A misfit wooden leg was the cause of the postponement of a wedding in Pittsburg, Pa., on September 20th. Joseph Smith and Annie Nugent had been sweethearts a long time, but an accident by which the former lost a leg deferred the wedding. The girl had some objections to marrying a one-legged man, but the cripple soon overcame her objections and the marriage was set for that time. Among other articles of wearing apparel the groom ordered was a brand-new wooden leg. The artificial limb was sent to the house the day before. When he found it did not fit him Smith sent it back, and told his friends who had been invited that the wedding would be postponed until the misfit leg was repaired.

Active Gastric Dilatation.—In a friendly contest to see who could eat the largest number of ears of green corn, a New Haven woman got away with eighteen ears and suffered no subsequent discomfort.

A Touching Tribute to Medical Heroism.—The following touching tribute to medical heroism is from the New York *Sun*. The *Sun* is always just to the medical profession, and in this instance speaks, as it has often done before, from its heart: "One of the first victims of the yellow fever at Brunswick last month was a practising physician, who caught the infection from a patient upon whom he was attending. On Sunday last, one of the physicians of the New York Hospital, Dr. Walter Vought, died of typhoid fever, the infection of which had been communicated to him by a child in the hospital. Again, a few days ago, two young doctors of this city caught the small pox from a patient who was afflicted with it. There are always risks for doctors in attendance upon patients suffering from contagious or infectious maladies. Yet they are always ready to brave the danger, without flinching, in the interest of humanity. Honor to our noble army of doctors! Hundreds of them volunteered for service here last autumn, when the city was threatened with cholera. We do not know how many of them have sent word to Surgeon General Wyman that they stand ready to go to Brunswick, or to any other part of the South in which the yellow fever may break out. Whatever be the risks from any disease, the medical faculty is ever willing to confront them. Long live the doctors! We have sent American doctors to the cholera-infected ports of Europe, and several of them have done splendid work there this year. If a hundred of them had been needed, we have no doubt that a thousand of them would have

offered their services. Heroes are the doctors. They will enter a pesthouse without shrinking, attend to every case in it, and do all that can be done to relieve the sufferers. Blessed be the doctors! They are men of science, men of skill, men of earnest purpose, men of sympathetic disposition. They are devoted to their duties. Dr. Walter Vought, who died of typhoid fever last Sunday in the New York Hospital, of which he was house physician, was a man of talent, and still in his early prime. He took charge of the quarantine station at Fire Island last year during the 'cholera scare;' he had rendered service in the Vanderbilt clinic; he died in a hospital. Though he had but just turned thirty years of age, he was the author of works upon malarial fevers, the cholera, and other diseases; he had already won a name in the profession. We knew him personally, and we can testify that he was a high-minded gentleman:

> 'There's rosemary, that's for remembrance; . . .
> and there is pansies, that's for thoughts.'"

The Southern Surgical and Gynecological Association will hold its next session in New Orleans on the 14th, 15th, and 16th days of November. Members of the medical profession are cordially invited to attend.

Dr. José M. Ferrer has been appointed visiting physician to the French Hospital.

American Public Health Association.—The next meeting of this Association will be in connection with the International Congress of Public Health at the Art Institute Building, Chicago, Ill., October 9–14, 1893. First meeting of the Congress, October 9th, at 8 P.M.

Tri-State Medical Society of Alabama, Georgia, and Tennessee.—The fifth annual meeting of the Tri-State Medical Society will be held in the Unitarian Church, Chattanooga, October 17th, 18th, and 19th. The prospects are for a large attendance and a very interesting meeting.

New York State Association of Railway Surgeons.—The third annual meeting of the New York State Association of Railway Surgeons will be held under the presidency of George Chaffee, at the Academy of Medicine, in New York City, November 15th. A cordial invitation is extended to the profession.

The Army Medical School.—General orders, No. 78. Headquarters of the Army, Adjutant General's Office, Washington, September 22, 1893. By direction of the Secretary of War, upon the recommendation of the Surgeon General of the Army, the faculty of the Army Medical School, established by General Orders, No. 51, June 24, 1893, from this office, and regulations for the government of the school, are announced as follows:

Faculty of the Army Medical School.—Colonel Charles H. Alden, Assistant Surgeon-General, United States Army, President of the Faculty and Lecturer on the Duties of Medical Officers; Lieutenant Colonel William H. Forwood, Deputy Surgeon-General, United States Army, Professor of Military Surgery; Major John S. Billings, Surgeon, United States Army, Professor of Military Hygiene; Major Charles Smart, Surgeon, United States Army, Professor of Military Medicine and Director of the Chemical Laboratory; Captain Walter Reed, Assistant Surgeon, United States Army, Professor of Clinical and Sanitary Microscopy and Director of the Pathological Laboratory; Captain Julian M. Cabell, Assistant Surgeon, United States Army, Assistant to Professor of Military Surgery and Instructor in Hospital Corps Drill.

The Course of Instruction.—The course of instruction will be for four months, and will be given annually at the Army Medical Museum, in Washington City, commencing on November 1st. It will include lectures on and practical instruction in: 1. The duties of medical officers in war and peace. 2. Military surgery, the care of the wounded in time of war, and hospital administration. 3. Military hygiene. 4. Military medicine. 5. Microscopy, sanitary and clinical; pathological histology, bacteriology, and urinology. 6. Hospital corps drill and first aid to wounded. By permission of the Surgeon-General, medical officers of the Army who desire to avail themselves of the course of instruction, and who are stationed in or near the city of Washington, or who have a leave of absence which enables them to attend the course, may be admitted as pupils under the same regulations as apply to recently "approved candidates for admission to the Medical Corps of the Army."

Examinations.—At the termination of the course of instruction the "approved candidates for admission to the Medical Corps of the Army" will be examined by the several professors, and their relative proficiency in each branch will be reported by the president of the faculty to the Secretary of War through the Surgeon-General of the army.

Regulations.—1. The president of the faculty will be responsible for the discipline of the school. 2. The junior professor will act as secretary and will be responsible for all property pertaining to the school. 3. A faculty meeting will be held in the office of the secretary on the first Monday of each month from October to March, inclusive, and whenever called by the president of the faculty or the Surgeon General of the Army. 4. Resolutions adopted by the faculty relating to the course of instruction, the purchase of books and instruments, etc., will be submitted to the Surgeon General of the Army for his approval. 5. The president of the faculty will submit to the Surgeon-General of the Army, on or before April 1st of each year, a detailed report of the condition of the Army Medical School, including an account of the instruction given and the proficiency of the several pupils as shown by an examination made by each professor at the termination of his course. 6. The hours of instruction will be from 9 to 12 A.M., and from 1 to 4 P.M., daily, from November 1st to February 28th, inclusive, with the exception of Saturdays, Sundays, legal holidays, and the week commencing December 25th. 7. Pupils will be required to be present during the hours designated unless specially excused by the President of the Faculty or by orders from the War Department. 8. When necessarily absent on account of sickness or other emergency, pupils will, as soon as practicable, send a written statement to the secretary of the faculty, explaining the reason for such absence. 9. The laboratories and library of the Army Medical School will be open for the use of pupils during the hours of instruction designated. 10. Pupils will be held strictly accountable for all instruments and apparatus issued to them for their personal use during the course of instruction, and for any loss or injury to books or apparatus belonging to the Army Medical School, when such loss or injury is due to carelessness or neglect. 11.

Pupils in the Army Medical School, during the hours of instruction, will wear the undress uniform of the grade to which they belong, except when engaged in laboratory work, when a black cambric laboratory gown may be worn.

By command of Major-General Schofield ; R. Williams, Adjutant-General.

Death of Dr. Thomas J. Richards from Small-Pox.—Dr. Thomas J. Richards died October 1st, of small-pox, on North Brother Island, after being ill less than a week. He contracted the disease at the Vanderbilt Clinic during a lecture which was being held there over a man named McGowan. Dr. Richards and Dr. Charles Norris were taken ill and sent to North Brother Island on September 21st. McGowan was also sent there, and recovered. He caught the disease at 429 West Fifty-Second Street, where there were five other cases. Dr. Norris, we are glad to say, will probably recover.

The Cat and the Caul.—Mrs. Ella Johnson, who lives in Philadelphia, recently became the proud mother of a bouncing baby boy, and when it became noised about that the lusty youngster had come into the world decorated with a caul the happy mother was deluged with congratulations, which she received with becoming modesty, satisfied with the knowledge that her offspring, because of his lucky face covering, would be free from most of the ills and dangers of ordinary mortals. But in a few days Mrs. Johnson's joy was turned to mourning. The caul had disappeared. Suspicion fell upon a neighbor and professional nurse who had presided over the sick-room during Mrs. Johnson's hours of anxiety. Mrs. Johnson says the nurse stole it and sold it to a sea captain for fifty dollars. She accordingly had the nurse arrested, and yesterday Magistrate Hackett was stumped by the strange explanation. In her own defence the nurse declared that the Johnson household cat had stolen the precious caul from off the bureau. This story was not credited, but Magistrate Hackett confessed himself in a quandary, and held the case under advisement.

Dr. Thomas L. Stedman.—The numerous friends of Dr. Thomas L. Stedman, the talented member of the MEDICAL RECORD staff, will be pleased to learn that he is satisfactorily recovering from an attack of typhoid fever, from which he has been suffering for the past month.

The Coroners' System Condemned.—The Grand Jury, after a week of patient investigation of the abuses of the Coroners' office, has recommended that such systems of inquest be abolished and in their stead the Massachusetts plan of examination be substituted. The latter, which has worked in a very satisfactory manner, consists of the medical examinations by legal experts to determine the cause of death, after which, in case of suspicion of criminality, the case goes to the police court. The presentment of the Grand Jury will be duly laid before the Constitutional Convention for adoption.

Board of Health Resign.—Four of six members of the Columbus (Ga.) Board of Health, including the President, Dr. Ticknor, resigned because the city council refused to pass an ordinance of quarantine against Brunswick.

Homœopathic College. — The Louisville homœopathists have started a medical college in that city.

The Colorado Medical Library Association has issued the following circular: "Certain members of the medical profession in Denver, realizing that the existence of a medical reference library for Colorado has become a necessity to the enlightened study and practice of medicine, have united and become incorporated under the title of the Colorado Medical Library Association. The annual subscription for membership has been placed at $5, and the subscriptions so received will be expended in the purchase of medical literature of a character determined by the nominations of the individual subscribers. The works thus obtained will be placed on the shelves of the Denver Public Library, on the condition that the library will spend on medical literature at least as much money as is subscribed by the association. The power and usefulness of books are increased when they are brought together. To the choice collection of medical works already in possession of the Public Library, several hundred valuable volumes have recently been added, either as bequests, gifts, or to be held in trust for their present owners. The funds in the treasury of the Medico-legal Society have been devoted to the purchase of appropriate literature to be added to the library. The medical department of the library now contains over eight hundred bound volumes ; fifty-five journals are regularly received through subscription, while some seventy-five additional journals are present in incomplete sets. At the present rate Colorado will shortly be in possession of a medical library which will compare favorably with the collections of the East. The present Executive Committee is as follows: Dr. J. T. Eskridge, President ; Dr. Henry Sewall, Secretary and Treasurer, No. 23 Eighteenth Avenue ; Mr. J. C. Dana, Librarian."

The Uses of Thiocamf.—Duffey (*Dublin Journal of Medical Science*, May, 1893) has been led to use thiocamf as an intestinal antiseptic, a surgical application, and an antiparasitic in cutaneous affections. His communication has already been briefly alluded to in this journal. Thiocamf is described by Professor Emerson Reynolds, its discoverer, as a "liquid which results when sulphur dioxide gas is brought in contact with camphor." In this liquid are dissolved several substances destructive of bacteria, among them benzoic acid and phellandrene. Thiocamf can be preserved without pressure in bottles at ordinary temperatures, but on its exposure in thin layers a steady evolution of large volumes of sulphur-dioxide gas, charged with the vapors of other disinfectants, takes place. From this action it has been much used for atmospheric disinfection, and, for the same reason, Duffey has applied it to the uses noted. For internal administration it was combined with pure butter fat in the proportion of ten per cent. of thiocamf. Of this, ten grains were given in capsule every two or three hours for four doses. The capsules were sometimes coated with keratin, that they might pass through the stomach and be dissolved in the intestines. The drug was thus used in a case of typhoid fever, in a case of phthisis in which the patient was suffering from pyrosis, in a case of dilatation of the stomach, and in a case of alcoholic peripheral neuritis in which the patient had fetid alvine evacuations. In all of these the signs of fermentation became less marked and the character of the movements improved. In two cases of scabies a four per cent. solution in olive-oil effected rapid cures.

In bedsores and unhealthy ulcerations it was used in oily solution (four to six per cent.) with the effect of quickly removing fetor, diminishing the discharge, and promoting healing. No ill effect was noted in any case.

The New York Medical Association will hold its Tenth Annual Meeting on October 9, 10, 11, and 12, 1893, at Mott Memorial Hall, in New York City.

The Yellow Fever Epidemic.—The number of new cases of yellow fever during last week in the town of Brunswick, Ga., has been very nearly one hundred, and the ratio of deaths to cases has been about one to seven. The disease is likely to continue to exist there until it is killed by frost, and it is not probable that, in that latitude, there will be any frost for several weeks yet. About one-half of the people of the place succeeded in getting away from it as soon as the disease was known to be epidemic, but those who were left there on August 12th have been forcibly prevented from leaving since that time. The reports at the time of writing indicate that the disease is spreading slowly through the surrounding towns.

A Conference on the Care of Dependent and Delinquent Children will be held in the State of New York, under the auspices of the State Charities Aid Association of New York, in the Assembly Hall of the United Charities building, Fourth Avenue and Twenty second Street, New York City, Tuesday, Wednesday, and Thursday, November 14, 15, and 16, 1893.

Professor Von Helmholtz, of Berlin, has been visiting this country and was tendered a public reception at Columbia College, on October 3d, by President and Mrs. Seth Low. The room was brilliant with electric lights, and grouped here and there were potted palms. The Hungarian orchestra was stationed in one of the galleries. He was also entertained at the Century Club, October 4th. Professor Von Helmholtz rendered an enormous service to medicine and to humanity by his invention of the ophthalmoscope, in 1851. His work on physiological optics (1867) also contained much that contributed to the advancement of ophthalmological science.

A Medical College at Princeton.—A telegram from Princeton, N. J., says that steps are being taken which will doubtless result in the establishment of a medical school at Princeton. Dr. Patton stated in his opening address last week that Princeton could have a medical department within one month, but whether he or the trustees were in favor of it he would not state then. A meeting of the committee appointed by the Faculty to further plans for the School of Medicine was recently held at which three new electives were added to the course, namely, comparative osteology, practical botany, and human anatomy.

The following has been taken from the advance leaves of the catalogue: "Students who contemplate entering the medical profession may combine the electives in biology and chemistry so as to receive, when graduating, a special certificate recommending them to a second year's standing in medical colleges which have a four years' course. The new course will include the required academic classes in general chemistry, botany, and zoölogy, mechanics and general physics; also the following elective courses: Junior year, general biology and theoretical chemistry, practical botany, vertebrate anatomy, and histology; Senior year, laboratory chemistry, physiology, comparative osteology and vertebrate morphology, embryology, histology, and paleontology."

Pension Surgeon.—Dr. William R. Pryor has been appointed a pension surgeon on the Central Board in New York City, in place of Dr. J. C. Morton, who is a republican.

Dr. S. Fleet Speir's suit against the city of Brooklyn, for damages to his residence by fireworks during a political demonstration, has been decided in his favor for $10,000 damages and costs.

The Death of Dr. Walter Vought.—At a meeting of the New York Neurological Society, held October 3, 1893, the following resolutions were adopted:

Resolved, That it is with the deepest regret that this society has learned of the death of Dr. Walter Vought, one of its youngest and most promising members, and one who had already given evidence of the possession of exceptional knowledge and ability, not only in the department of neurology, but in the whole field of general medicine.

Resolved, That in the death of Dr. Vought his colleagues lose a friend much esteemed for his excellence as a physician, and still more for his good-fellowship, loyalty, devotion to principle, and nobility of character.

Resolved, That this society, in expressing its appreciation of the high qualities of heart and brain of its departed member, and its feeling of regret at his loss, desires in addition to extend its deep sympathy to his bereaved family.

FREDERICK PETERSON, M.D.,
JOHN W. BRANNAN, M.D., *Committee.*

Microbes on Post-cards.—The latest scare in microbes has been started by Professor Uffelman, of Rostock, who infected a letter with cholera bacilli and put it into a post-bag. When the letter was taken out, 23½ hours later, the bacilli were still alive. Bacilli were also found living on post-cards twenty hours after infection. The micro-organisms were found to die rapidly when placed upon coins. A fly charged with cholera bacilli was afterward placed on some beef. A little later the meat was found to be swarming with bacteria. A finger was infected with cholera bacilli and dried. One hour later the finger was rubbed on some roast meat, and numerous bacilli developed subsequently. The moral of all these experiments is obvious.

Gout.—The habitual eater of meat in liberal quantities has a healthier and a less "gouty" urine than the subject of *régime* that limits the proteids. Let practitioners give their patients plenty of red meat, which is the staple of the food eaten by animals which do not produce uric acid. Keep up their energy with dry champagne or some other wine which contains a minimum of alcohol with a maximum of nerve-stimulating property; and for remedies fall back on iodine, combined with diffusive nerve tonics and stimulants, such as musk (Cullen's sheet anchor), camphor, and the other tried remedies of the older and too much neglected type.—GRANVILLE.

Reviews and Notices of Books.

Diagnosis and Therapeutics of Diseases of the Stomach, according to our Modern Knowledge. By Dr. I. Boas, Specialist for Diseases of the Stomach and Intestines in Berlin. Part II. Special Diagnosis and Therapeutics of the Gastric Disorders. With 8 woodcuts. Leipsic: George Thieme. 1893.

Last year we reviewed the first part of this valuable work, which is now completed by the publication of Part II. This part is divided into chapters dealing with the methods of examination, the diagnosis and differential diagnosis, and therapeutics of acute and chronic gastric catarrh, the etiology and diagnosis of round ulcer, habitual constipation, displacements of the stomach, floating kidney, carcinoma, etc. In the chapter on floating kidney, the mechanical treatment of Thure Brandt is described at some length.

The nervous disorders of the stomach are treated of in detail, and there is also a dietary table arranged for every gastric disorder. The print is clear and large, and the illustrations are very good, a noteworthy point being that they are given from the author's personal observation of patients. The book deserves a place in the library of every physician.

L'Inoculation Préventive contre le Choléra Morbus Asiatique. Par le Dr. J. Ferran, avec la collaboration des Drs. A. Gimeno et I. Pauli. Traduit par le Dr. E. Duhourcan. Paris: Société d'Éditions Scientifiques. 1893.

This is a French translation of the work by Dr. Ferran, describing the method of cholera inoculations first practised by himself during the epidemic occurring in Spain in 1885. The results of these inoculations were given at some length in these columns at the time. The author encountered much opposition both from the medical profession in Spain and other countries and from the Spanish authorities, and the latter finally put an end to any further trials of his method. Now that the experiments of Haffkine in the same direction have met with a more respectful consideration, Dr. Ferran very justly feels that his prior efforts should be known, and that any credit for originality which may be his due should be accorded him. The work treats at some length and in a very intelligible fashion of the microbic theory of infectious diseases and of the questions of infection, immunity, and preventive inoculations, and then takes up the application of these new doctrines to the production of artificial immunity against cholera, concluding with a republication of the statistics on inoculations practised by the author in several villages in Spain, during the epidemic of 1885. The book is a timely and instructive presentation of the modern teachings concerning cholera, and it might be read with profit even by those who are seeking information only, and who are indifferent as to who was the first to practise inoculations, the value of which is, after all, by no means as yet proven.

Fermentation, Infection, and Immunity: a new Theory of these Processes, which Unifies their Primary Causation and places the Explanation of their Phenomena in Chemistry, Biology, and the Dynamics of Molecular Physics. By J. W. McLaughlin, M.D. Austin, Tex.: Eugene von Boeckmann. 1892.

There is an air of freshness and originality about this book that makes it, despite its literary faults, most interesting reading. It is an attempt to explain by a purely mechanical theory the action of bacteria in producing disease. The author first discusses the process of fermentation, and proves, to his own satisfaction at least, that the resulting products are formed from substances previously existing which are disinfected by the dynamic energy or wave impacts of the micro organic ferment. To take vinous fermentation as an example, Dr. McLaughlin assumes that, the sugar and the ferment having the same rate of molecular vibration, the presence of the latter so augments the wave motion in the former that the molecules of the sugar became finally forced asunder, and their component atoms rearrange themselves in new groups so as to form alcohol and water. But alcohol has necessarily a different rate of vibration from the ferment, otherwise it could not have formed, or, if formed, would have been immediately disrupted again; hence it opposes the energy of the ferment, and finally inhibits its action altogether. The influence of pathogenic bacteria upon the albuminoids of the body is precisely similar, the author holds, to that of the ferment upon sugar. And in the same way as alcohol is formed by a rearrangement of the atoms of sugar, so are toxines and toxalbumins formed by a rearrangement of the atoms making up the albuminoid molecules in the animal organism. We cannot go more fully into an exposition of this interesting theory, but can only recommend anyone who takes an interest in the problems of disease and immunity to read the book very carefully. It will repay careful reading—indeed, it demands it; and whether the reader accepts the theory here advanced or not, he cannot but admit its plausibility and admire the ingenuity of the author in working it out so as to explain all the phenomena of infection and immunity. The work is marred somewhat by evidences of careless proof-reading and by a few grammatical slips which tend to confuse the sense. But these are not conspicuous enough to detract materially from the reader's pleasure. There is food for deep thought in what the author says, and the reader will furthermore, unless he be already deeply versed in studies cognate to the subjects here treated, glean much incidental information of a useful kind.

Diet for the Sick. By Miss E. Hibbard, Principal of Nurses' Training-School, Grace Hospital, Detroit, and Mrs. Emma Drant, Matron of Michigan College of Medicine Hospital, Detroit. Detroit, Mich.: The Illustrated Medical Journal Co. 1893.

This is a convenient little manual containing directions for the preparation of various dishes for the sick. Diet tables compiled from the works of recognized authorities have been added, and there is also a chapter of "don'ts" for nurses.

Report of General William W. Averell, U. S. Army, Assistant Inspector-General, N.H.D.V.S., to General William B. Franklin, President of the Board of Managers of Inspection of Branches of the National Home for Disabled Volunteer Soldiers and Soldiers' Homes in States. Washington: Government Printing Office. 1893.

This is a report of an inspection of all the Soldiers' Homes in the United States, made during the year 1892. It contains much practical information on various subjects and also some statistics of less value. The old soldiers seem to be pretty generally given to drink, if one may judge from the extensive trials of the Keeley cure that were made in the different branches of the Home.

Fifteenth Annual Report of State Board of Health of Connecticut. New Haven: Tuttle, Morehouse & Taylor. 8vo, pp. 194. 1893.

This report is for the seven months ending June 30, 1892, and is unusually replete with interesting sanitary material. The health of the State has been reasonably good save for the influence of the grip epidemic, which during the season which the report covers, has notably increased the mortality.

Operation Blank. Prepared by W. W. Keen, M.D., Professor of Principles of Surgery in Jefferson Medical College. Philadelphia: W. R. Saunders. 1893.

These operation blanks will serve a useful purpose for the surgeon in reminding him of the details of preparation for the patient and the room, as well as for the instruments, dressings, and antiseptics needed.

Society Reports.

AMERICAN DERMATOLOGICAL ASSOCIATION.

Abstract of the Proceedings of the Seventeenth Annual Meeting, held in Milwaukee, Wis., September 5 and 6, 1893.

MORNING SESSION—FIRST DAY, TUESDAY, SEPTEMBER 5TH.

THE Association met in the club-room of the Pfister House, and was called to order by the President, DR. GEORGE HENRY FOX, of New York, at 9.30 A.M.

Cosmetics, by DR. R. B. MORISON, of Baltimore, Md., was the first paper read. The author said that cosmetics, in a general way, may be divided into two classes, namely, those which are irritating, and those which are soothing. For instance, if we wish to remove freckles or warts, a stronger application must be made than if we simply prescribe for a redness following an acne or an eczema. It is invariably his custom to teach the patient, either through himself or his assistant, how to apply local remedies. Salves, plasters, lotions, and caustics are so often misapplied that experience had taught him to have an application, from which one hoped to get the most good, made by skilled hands to begin with. He finds that nothing suits his patients better for the removal of freckles than the following solution:

℞.	Corrosive sublimate	grs. vij.
	Distilled water	ʒ vj.
	Spirits camphor	ʒ ss.
	Rose water	ʒ v.

Three or four thicknesses of linen, cut to cover the seat of freckles, are moistened with the solution, and placed upon the face at night until they dry, when they are taken off. Whatever remains on the skin is left there till morning, and then washed off. After a few nights' application the face becomes red, and the epidermis begins to peel off in fine scales. Then an ointment is used night and morning, the application being made by gently rubbing it over the face, with a clean finger, for five minutes at a time.

In the removal of superfluous hairs the author has given up electrolysis. The results which he had had himself, and those which he had seen of others, have not been sufficiently good to warrant its continuance. He finds that the proper application of a good depilatory answers the purpose much better. There are many women who wish to get rid of the white lanugo down on their faces, upon whom it seems that electricity cannot be used for fear of stimulating the growth of the surrounding hair, and the appearance of permanent scars. If a preparation of yellow sulphate of arsenic and quicklime, of equal parts, made into a paste with hot water, be allowed to dry on the hairy skin it removes the hair for ten to twenty days, and sometimes permanently. On the other hand, nothing seems to take the place of electrolysis where there are a few strong hairs growing from moles, in the removal of moles themselves, in angioma, or in permanent small red spots.

For the removal of warts the author prescribes the following:

℞.	Hydrarg. bichlor.	grs. v.
	Ac. salicyl.	ʒ j.
	Collodion	ʒ j.

He sometimes increases the bichloride of mercury to thirty grains in the same amount of collodion, if the milder application does not answer. It is applied every day once, the upper crust of the previous application being removed before a fresh one is made Four such applications generally soften the wart to such a degree that gentle traction removes it painlessly, the further dressing being any simple ointment.

The author had obtained excellent results in cases of acne by the use of the galvanic current.

A Case of Rhinoscleroma.—DR. GEORGE T. JACKSON, of New York, read a paper with this title, in which he said that in October, 1892, he had the pleasure of presenting to his class, at the Woman's Medical College of the New York Infirmary, a case of rhinoscleroma. There have been only three cases of this disease reported by the members of the American Dermatological Association since its foundation, in 1877. The patient, a woman, fifty-four years of age, was born in Hungary. The disease began sixteen years ago, as a slight thickening of the upper lip to the left of, and just under, the septum nasi. Since then it has grown slowly and without pain. During the past four years it has increased in size more rapidly than during the preceding twelve years. At present it appears as a hard, well defined, elevated, old ivory-colored mass, located upon the upper lip, beginning at a point a little to the right of the middle line and occupying nearly the whole of the left side of the lip. It runs up upon the left side of the septum nasi to a slight extent. It is slightly lobulated, so that it has an uneven surface, and shows a number of dilated blood vessels running over it, and a number of white points apparently representing plugged-up and dilated follicles. There is no history of syphilis, nor does it look like a syphilitic growth. There is no sign of ulceration nor tendency to break down. She had been previously under the care of Dr. Charles W. Allen, of New York, who had cut out a small piece of the growth, and this had been examined microscopically by Dr. Lustgarten for the bacilli discovered by Frisch, with negative results, on account of the meagreness of the material. Nevertheless there was no doubt as to the diagnosis. The disease is a very rare one, and most of the cases have been reported from Austria and Southern Russia. Only about one hundred cases have been reported altogether.

No satisfactory treatment of the disease has been found. The best results so far reported have been attained by the use of salicylic acid injected into the tumor daily, a one per cent. solution of the acid or a two per cent. solution of salicylate of soda being used; while ten grains of the acid were administered by the mouth three times daily.

A Case of Circumscribed Scleroderma (Morphœa).—This was the title of a paper read by DR. W. T. CORLETT, of Cleveland, O. Mary M——, aged ten, an intelligent-looking girl, well nourished, although slightly pale, presented herself with variously sized and colored lesions on the left upper extremity. These were of two years' duration. The lesions were located on the extensor surfaces, the most typical lesion being situated in the middle third of the forearm. This was of oblong shape, four inches in length and two inches in width. It was slightly contracted, lessening somewhat the circumference of the forearm, and was somewhat depressed, resembling cicatricial tissue. The lesion presented a yellowish-brown central area, with a slightly uneven surface, slightly indurated and non-adherent. No anæsthesia. Hairs were absent. Outside the central zone was a bluish white area surrounded by a lilac pink border merging into normal skin. Veins about the lesion were very prominent. A second spot had appeared, one year after the first, on the back of the hand, the characteristics of which were similar to the preceding. During the four months prior to her first visit to Dr. Corlet, seven other spots appeared on the arm and one on the shoulder. These were smaller than the original. Sharp pains were now complained of, extending from the shoulder to the hand. These were aggravated by writing, but lasted only a few days. Some itching around the margin of the lesions, and occasionally frontal headache, were complained of. There was tenderness over the upper dorsal and lower cervical vertebræ; no motor or sensory impairment anywhere, nor were there any other evidences of cord disease. There was no history which might possibly explain the lesion excepting a fall upon the back at the age of five years. No history of nervous or hereditary disease of any kind in the family. The doctor considered the case as a perfect

type of morphœa originally, but at the present time the case presents a picture of the atrophic stage of scleroderma.

The points of interest are: 1. The changes of clinical form through which the disease has passed. 2. The predominance of the neurotic element, which is so often well marked in morphœa, and which points to the spinal cord as the most probable seat of the disturbance. 3. The confusion of nomenclature of morphœa and its relation to scleroderma is of some interest. Modern treatises on dermatology by American authors are in the main inclined to consider morphœa and scleroderma as distinct affections, while European authorities are rather inclined to the opposite view.

The author has not attempted to advance any original suggestions regarding treatment, contenting himself with the clinical presentation of the case.

A Case of Tuberculosis of the Skin Simulating Lupus Erythematosus.—Dr. W. A. Hardaway, of St. Louis, Mo., read the paper. The patient was a pharmacist, twenty-eight years of age, previous health good, family history good, and no history of tubercle. Tall and spare, and of sallow complexion, yet he is a man of great endurance. In May, 1892, he noticed on his left malar region a small yellowish elevation the size of a pinhead. This was supposed to be a flesh-worm, and was squeezed, blood only being thereby obtained. The lesion gradually enlarged peripherally, becoming hard and red. No subjective phenomena. He came under Dr. Hardaway's care in June, 1892, the lesion being now as large as a dime, presenting an atrophic whitish centre surrounded by a slightly raised infiltrated border of a dull red color. The lesion was anæsthetic, a characteristic which has been noticed in tubercular syphilides. The anæsthesia was temporary. In a short time the patient passed from under observation and was gone for a month, during which time he was thoroughly treated for syphilis by another physician. The treatment simply aggravated the general and local conditions.

September 3, 1892, the original lesion was the size of a half-dollar, not raised from the surface, and moderately infiltrated. The centre is still atrophic, and the same narrow, dull, red line presents at the borders. In a few weeks several small acniform pustules appeared on the right temple, side of the nose, and inferior angle of the right eye. Others presented on the end of the nose, right ala, and left cheek. These lesions were not painful or itchy. Each lesion was surrounded by a red areola, which subsequently extended and became infiltrated, crusts forming over the centres of the lesions. The crusts were fatty or sebaceous in character, and with a dull red surface beneath were suggestive of lupus erythematosus. As the borders of the lesions extended the centres cicatricized, presenting the same dirty yellow appearance of the original patch.

December 9th, thiosinamine was given hypodermically at 12 M., and the patient stated that about 7 P M. the patches became hot and red, remaining so for an hour or two. Other injections of the drug were subsequently given, but without effect.

December 22d, the lesion in the right eye had become as large as a quarter of a dollar. Electrolysis had been tried on the spot on the left temple, but it was still spreading. A new spot was now found on the chest, beginning like an acne papule, which became pustulated and finally scaly. This went through the same metamorphosis as the previous lesions, the elevated red border extending until the lesion was as large as a pea, when it was thoroughly destroyed by electrolysis.

Early in January a small piece of skin was excised from the lesion on the right temple and examined microscopically. Electrolysis was tried upon the other lesions with an apparent cure, followed by a relapse after a few months, manifesting itself first by the formation of a scale in the centre of the scar. Electrolysis was persisted in as fast as the spots appeared, and with apparent success.

In March a small patch similar to the others appeared upon the scalp; this is now the size of a dime. The tendency to peripheral extension throughout has been a marked feature in this case. The whole nose finally became involved, and became a continuous lesion of partly red and partly cicatrized integument, presenting a striking likeness to some forms of lupus erythematosus. Dr. Hardaway thought that this resemblance would have been more striking if the patches on the side of the face had been allowed to coalesce instead of being destroyed by electrolysis.

At no time could nodules of lupus vulgaris be demonstrated, nor were the sebaceous plugs of lupus erythematosus seen at any time. The patient's general health has continued so poor that at one time general tuberculosis was considered imminent. A trip to Colorado brought about great improvement. At last accounts the disease was apparently quiescent, the patient's general health good, and no lesions of the lungs and larynx have been detected.

Dr. C. Heitzmann reports, after microscopical examination of the excised piece of skin, that a moderate number of tubercle bacilli were found. A large number of inflammatory corpuscles were also detected displacing the fibrous connective tissue. Nests of inflammatory corpuscles were seen in the arrangement characteristic of tuberculosis. The diagnosis was local tuberculosis of the skin, which was entirely in accord with the clinical diagnosis.

Lupus Erythematosus as an Imitator of Various Forms of Dermatitis.—Dr. H. R. Crocker, of London, England, read a paper on this subject. The author said that lupus erythematosus as an imitator of various forms of simple dermatitis was a formidable rival of syphilis itself. It was to this aspect of the disease that he desired to direct attention by relating some cases and showing drawings which illustrated the points he wished to place before the Association.

The first drawing was an instance of a lupus imitating erythema tuberculatum. The patient was twenty-seven years of age. The lesions commenced on the right cheek. There was only one spot for the first two years, then others formed on the side of the nose, and they then became scattered irregularly over the face, but, with the exception of a hempseed-sized nodule on the left ear, there were none anywhere else. The lobes of both ears were atrophied looking, but the patient said there had never been any lesions on them. All the lesions were exactly like an erythema tuberculatum, varying from a hempseed to half an inch in diameter, quite smooth except one on the side of the nose which was scaly. They were of a uniform purplish red, except one, which was whiter in the centre.

Case 2 showed an advanced condition of the disease, which began in a similar form to Case 1.

Case 3 was one of lupus erythematosus like erythema papulatum. The patient, aged forty-two, was a cab-driver. Two years previously he had some rash on the cheeks which lasted only a month, and it was not until a year ago that the present eruption began on the sides of the cheek, and has gradually extended until it reached its present condition. The eruption when seen occupied the whole face below the eyebrows, the orbits themselves, and the lower lip escaping, but the chin, except in the centre, was affected. On the left side it extended above the brow, but below the orbits it was remarkably symmetrical. The most recent lesions were on the lower part of the side of the face and below the jaw. In these positions they were the form of erythematosus, slightly raised disks from a half to a quarter of an inch in diameter; the most recent were of quite smooth and slightly convex, the larger ones were not prominent in the centre and but slightly scaly.

Case 4 was like diffuse erythema, the patient being a lady, forty-three years of age. The disease had commenced three years previously as a small red spot on the side of the nose and had spread continuously; the whole nose intensely reddened and slightly scaly, the skin

thickened and infiltrated, but the orifices of the sebaceous glands were not patent or plugged.

Another disease which lupus erythematosus imitates is psoriasis, and the author reported a case in point. A rarer imitation is that of lichen planus, of which the author had seen only two cases.

Dr. Crocker also reported a case of lupus erythematosus nodulatum. He had met with three or four other cases of this, but not with so many distinct foci of disease. In two cases there was only a single nodule in each. He also remembers a case in which there were even more foci of disease, in a patient of the late Dr. Tilbury Fox. Cavafy also showed a case at the Dermatological Society of London, in 1892, but Dr. Crocker was not aware of any other cases having been recorded.

The Treatment of Pruritus.—Dr. E. B. Bronson, of New York, followed with a paper on this subject. The author said that in the management of pruritus essentialis, as of any other disease, the first consideration should be directed to what caused the trouble. The adoption of measures tending to remove any accidental conditions or influences through which pruritus might be occasioned is important. Such causes include, besides various local sources of irritation, certain remote or general diseases, and furnish the *indicatio causalis* in its more limited sense. This, however, states the scope of the problem only partially. What is of more importance is to establish principles of treatment fitted to those more special and more essential causes that constitute the necessary conditions of the disease, and whence we derive the *indicatio morbi*. These causes are traced under etiology, and it is they which must afford the only intelligent basis for the therapeutics of pruritus.

The chief underlying condition in pruritus is hyperæsthesia, whether in its common significance of an excessive irritability of the sensory nerves, or in the sense of an excess or engorgement of sensation. The prime indications, then, are to allay irritability and to divert or annul the excess of nervous excitement. Measures to remove local excitants, include, first of all, such as directly tend to prevent scratching. To admonish the patient to refrain from this is usually of little avail. Restraint may be possible during waking hours, but at night, when the trouble is always at its worst, and especially during the state of somnolence midway between sleeping and waking, no power can prevent it. It can only be avoided by first mitigating the lesion through the aid of anti-pruritics. Sedatives when used internally are apt to be disappointing. The degree of general sedation that is required to affect the nerves of the skin in so intense a disturbance as pruritus often is, affords a sufficient reason why this method of treatment is usually objectionable. Further than this, the depressing and atonic after-effect on the nervous system tends to exaggerate the general hyperæsthesia, which is already essentially an atonic condition, and thereby increases the tendency to itching. Especially objectionable are most of the narcotics. The bromides, on the other hand, are often indispensable and may be required in liberal doses. It is important to avoid the enervating effects of loss of sleep, and for this purpose sulphonal or some other hypnotic is occasionally needed. In connection with this, two internal remedies, which have been especially recommended by Bulkley, are worthy of mention, and they are cannabis indica and gelsemium. The former is known to be a cutaneous anæsthetic as well as an analgesic, and by virtue of the former quality should be useful in pruritus.

Carbolic acid is the most reliable and most generally useful anti-pruritic which dermatologists possess. It was well named by Unna "the opium of the skin."

The following "anti-pruritic oil" has been much employed by the author for years, both in a local and so-called universal form of the disease, with no more untoward results than now and then a trifling dermatitis, when through oversight the patient has been allowed to make the applications too frequently, or has continued them too long. The formula is:

℞. Carbolic acid ..... ʒ i–ij.
Liquor potass ..... ʒ j.
Ol. lini ..... ʒ j.
Sig.: Shake before using.

To correct the disagreeable odor of the linseed-oil a drop or two of the oil of bergamot may be added. Salicylic acid and salol, though less energetic in their effects, act similarly to the carbolic acid. Thymol is also an admirable anti-pruritic, but on account of its irritating effect cannot be used when the skin is sensitive.

The author then dwelt on sensory stimulants, substitutive irritants, alteratives of cutaneous nutrition, and motor depressants. In pruritus hiemalis an all-important measure of treatment is protection against cold. The sole cause of winter pruritus, aside from a special predisposing hyperæsthesia, is lowered temperature.

Angiokeratoma.—Dr. Joseph Zeisler, of Chicago, Ill., read the paper and reported the following case: The patient was a German, fifty-three years of age, butcher by occupation. Had never had any severe illness, but had malaria once. Present illness began somewhat gradually about four years ago with red spots and verrucæ on the skin of different parts of the body. He was under medical treatment, and says he improved for a time. He states that some of the red spots gradually disappeared at times, but returned, and new ones arose in different localities. During all this period his general health had not suffered in the least. No anorexia, headaches, nor any other complaint. There is no pain or itching in the skin lesions. Patches of vitiligo of large size are found on the front and sides of the abdomen, and on the right side of the thorax. Some small patches in right axilla. Faint patches on right side of chest, posteriorly, and on the neck. Large patches on the penis and scrotum, and small ones on the inner surface of the thighs. There are some old marks of tinea favus on the scalp. Nævus-like spots and small tumors are scattered over the body as follows: On posterior surface of right ear are two small warts, red in color and vascular; one on posterior aspect of left ear. On the ulnar surfaces of both forearms, beginning over the olecranon, are found red, nævus like patches of irregular contour, and smaller isolated ones in the form of small pedunculated tumors. The patches vary in size from three or four inches in circumference to the size of a dime. They are red in color, vascular, and slightly raised above surface of surrounding skin. On the right forearm are numerous small tumors, varying in size from minute spots to some the size of a hazel-nut. The larger ones are all pedunculated, firm, and vascular. On the left forearm they are fewer in number. Considerable œdema in the right hand and fingers. Only one or two small warts on the extensor surface. On palmar surface there are some on every finger except the index, and none on the wrist and ball of the thumb. One was removed and found to consist of an outer layer of thickened epidermis surrounding a very vascular centre. Microscopical examination was made by Dr. Zeisler. Some of these tumors sprang out from beneath the fingernails. On the left hand the verrucæ were not so numerous, and inclined more to the small vascular variety, with two exceptions. Large, irregular, red patches were also found over each patella, and a few smaller ones irregularly scattered over anterior aspect of the legs and thighs, also a few smaller ones over the posterior aspect of thighs, and one over the back of each ankle. Two small pedunculated warts were also found on the back of right leg; another with some of the red patches on the nates near the gluteal fold. No patches or tumors were found on abdomen, thorax, or upper part of arms.

The author reported this unusual and interesting case to show that the clinical picture of the disease is evidently not yet quite complete, and hoped that new examples of the disease would arise which would throw more light on the pathology and etiology of the affection.

A Contribution to the Pathology of Acne Variioliformis (Hebra).—Dr. J. A. Fordyce, of New York, read a paper on this subject. He called attention to the

case described by Dr. Bronson and himself, in 1891, under the title of "Acne Varioliformis of the Extremities," which was at that time shown to originate in or about the coil glands. This was identical with cases since reported by Politzer, Dubreuil, and others, under the name of hydradenitis, and should go on record as an example of that affection. While clinically it presented many points of similarity to acne varioliformis (Hebra), its pathological anatomy was quite distinct.

The writer had examined microscopically a number of papules and papulo pustules from two typical cases of the latter disease, and was able to trace its beginning to an inflammation about the middle and upper portions of the hair-follicles and their sebaceous glands, while the coil glands were shown to be outside the inflammatory area. Enormous numbers of staphylococci were found in sections from one of the cases examined, which readily stained with Kuhne's carbolic methyline-blue solution. These organisms were especially numerous about the middle and deeper portions of the hair-follicles and were contained within the external and internal root sheath, in the connective tissue about the coil glands, and in the subcutaneous connective tissue. In considering their number, distribution, and presence in the diseased area before the epidermis was involved, the writer was disposed to consider them a direct influence in producing the lesions. In a secondary infection they would scarcely be found at so early a period in the evolution of the papule.

As a result of his investigations Dr. Fordyce concluded that acne varioliformis (Hebra) was an inflammation of the pilosebaceous system, of microbic origin, leading to destruction of these organs, and that Bazin was correct in naming the disease acne pilaris.

The members of the Association, at the close of Dr. Fordyce's paper, participated in a general discussion on "Pityriasis Rosea and Pemphigus."

Election of Officers. — The following officers were elected: *President*, Dr. Robert B. Morison, of Baltimore, Md.; *Vice-President*, Dr. George T. Jackson, of New York; *Secretary and Treasurer*, Dr. Charles W. Allen, of New York; *Member at Large of the Council*, Dr. J. A. Fordyce, of New York.

On motion, the Association adjourned to meet in Washington, D. C., in connection with the Congress of American Physicians and Surgeons, in May, 1894.

Pan-American Medical Congress.

First Meeting, Held at Washington, D. C., September 5, 6, 7, and 8, 1893.

(Special Report to the MEDICAL RECORD.)

(Continued from p. 445.)

SECTION ON HYGIENE, CLIMATOLOGY, AND DEMOGRAPHY.

ALBERT L. GIHON, M.D., MEDICAL DIRECTOR U. S. N., WASHINGTON, PRESIDENT, IN THE CHAIR; ENGLISH SECRETARY, PETER H. BRYCE, M.D., TORONTO, CANADA; SPANISH SECRETARY, PEDRO JOSÉ SALICRUP, M.D., NEW YORK CITY.

SECOND DAY, WEDNESDAY, SEPTEMBER 6TH—AFTERNOON SESSION.

Sanitary Work in St. Louis.—DR. HOMANS, of St. Louis, Mo., opened the afternoon session by an able and instructive paper on "Sanitary Work and Precautions in St. Louis." He described the workings of its Board of Health, of which he is President. It is composed of physicians, public vaccinators, and corps of sanitary inspectors, chemists, etc. There is in addition a disinfecting corps. All questions bearing on public health, as affecting the city of St. Louis, were discussed by Dr. Homans, at length — markets, slaughter-houses, bad food, impure water, smoke, dust, etc. St. Louis, in common with other cities, has had her knotty questions, but they are being solved. A novel feature was the photographing of nuisances. The practice has been found valuable for purposes of record and as evidence in court, where actions have been brought against the Board. These they used for justification of the Board's action. The Board's chemist was kept busy analyzing drinking-water, foodstuffs, etc. All contaminated wells were closed.

The "pin-and-map" system was used for locating unhealthy spots and houses, and was found useful and very effective.

General and Efficacious International Maritime Policy.—DR. EDUARDO LICEAGA, of the City of Mexico, President of the Supreme Council of Health of Mexico, followed. His theme was, "The General Bases which should Govern the Continent of America in Promulgating a General and Efficacious International Maritime Policy." After some introductory remarks he referred to the incessant progress of science, spoke of the United States as the representative of science, in the "Three Americas," and then dealt with the subject of his paper, the question of quarantine against disease and disease-carriers; the necessary detention of ships from infected ports; such ships he divided into three classes—immune, suspected, infected. The paper was read in Spanish. It was an able one, indorsing the views of the Dresden Congress on all matters pertaining to quarantine, and recommended that they should be applied on this continent. In short, he outlined an international quarantine for mutual protection.

Pneumonia. — DR. ORRAÑOS, of San Luis Potosi, Mexico, likewise a member of the Supreme Council of Health of Mexico, followed in a paper in Spanish. His subject was "Pneumonia: Its Dangers as an Infectious Disease." He referred to the three climates of Mexico—Tierra Fria, Templado, Caliente—or its cold, temperate, and coast or tropical climates. He dwelt on the distribution of pneumonia from Zacatecas in its highlands to Campeachy on the Gulf of Mexico. March and April, at the close of the Mexican winter, gave the heaviest death-rate. In some places it was more fatal than others. He cited much of general interest regarding infected houses, citing case after case in the same house, visitors to pneumonics having contracted the disease and taken it to others. In other words, its propagation by individuals and air. Malaria and pneumonia had a *rôle* frequently observed in Mexico. He deems the disease highly infectious. He cited a case of a man who died of pneumonia. A month later his clothing was sent to a family. Soon after two children in that house were ill with the disease. Another illustration was that of a woman who nursed a pneumonic—sleeping in the same room; she likewise contracted the disease.

An examination of records of cases of pneumonia in given localities had proven very instructive. In two years thirty-one cases had been traced to infected houses, case after case in the same house. The germ of the disease, the pneumococcus, he deemed almost indestructible in Mexico.

DR. ORRAÑOS'S paper was timely, and threw new light on the careful and painstaking work of medical men and sanitarians in Mexico.

Then followed a lengthy discussion on quarantine; over fifty experts and sanitarians were present. A great variety of views were expressed, when the following was offered, moved by Dr. Rauch, of Chicago, seconded by Dr. Flick, of Philadelphia:

"*Resolved*, That in the judgment of the Section of Hygiene, Climatology, and Demography of the Pan-American Medical Congress, immigration should be suspended, from a sanitary and economic stand-point, from all countries and ports in which cholera prevails, until the present pandemic is over."

DR. LEE, of Philadelphia, spoke in favor of it. DR. STEWART, of Baltimore, thought it too sweeping. DR. FLICK maintained the principle. DR. SHAKESPEARE, of Philadelphia, spoke in favor of the motion, dwelling on the conflicting interests of commerce and immigration.

He referred to the "habitual evasion" of agents of steamship lines and the habits of concealment practised by shipmasters. Measures must be adopted for general protection.

Dr. Cyrus Edson, Board of Health of New York City, was cordially in favor of stopping immigration from infected ports. He did not believe it possible to maintain a successful cholera quarantine. He deems the common house-fly an active agent in spreading the disease. Between the arrival of an infected ship at a port and the appearance of the disease a single day may suffice.

Dr. Gihon, the President of the Section, named a committee of three to draft a resolution. He named Drs. Shakespeare, Lee, and Cyrus Edson. They reported back as follows:

"*Resolved*, That it is the sense of this section that, in view of the prevalence of Asiatic cholera in Europe at the present time, and the constantly increasing number of *foci* of infection, immigration from European countries in which cholera exists should be temporarily suspended, as this action affords, in our opinion, the only certain means of averting a threatened invasion by the disease of the countries of the American continent.

"Be it further *Resolved*, That the resolution be reported to the General Session of the Pan-American Medical Congress, with a request for its adoption and speedy transmission to the executives of the several countries officially represented therein."

Dr. Otis, of California, moved, it was seconded and carried, that a recommendation be sent to Congress requesting a reprint of Dr. Shakespeare's valuable book, entitled "Report on Cholera in Europe and India," and that copies be distributed to all the members of the Pan-American Medical Congress.

Need of Research in Preventive Medicine.—Dr. J. M. Postle, of Illinois, read a paper on this subject. He said, *inter alia*, that the country was threatened by epidemics that came to our shores from foreign lands. He referred to the etiology of disease and deemed "an ounce of prevention better than a pound of cure." Sanitary science was deeply indebted to Lister, Virchow, Pasteur, and others. Jenner's invaluable discovery was mentioned. He said: "If vaccination is protection against one disease, why not vaccination against many diseases?" Bacilli-ptomaïnes and their absorption were fully discussed. He wished to see America in the front rank of medical science and preventive medicine. In other words, "first in all that advances the welfare of mankind."

"The School in Relation to the Spread of Diphtheria."—Dr. Peter H. Bryce, of the Provincial Board of Health, of Toronto, Canada, read the paper. His investigations show that twenty-five per cent. of all cases occur between the first and the tenth year, and that fifty-five per cent. of all cases occurred among the school population of Ontario. It causes a heavy mortality in that province. The highly infectious character of the disease was referred to the fondness of its germ for damp and unhealthy homes. The germ of diphtheria does not thrive in light and well-ventilated rooms. In such it becomes inert in two or three weeks. Warmth increases the number of germs. Inoculation is possible through any mucous surface.

Dr. Farr, when Registrar-General of England, as a result of many years of study and observation, could predict the death-rate for a given locality—either by the acre or mile—if its population was given him, the rule being, the denser the population the greater the death-rate. It was known as "Dr. Farr's Law of Density."

Schools, their impure air, overheating, etc., were discussed, and as such were shown to be dangerous. His conclusions are: 1. Diphtheria in houses is an intensely infectious disease. 2. It may be mild in some patients and they may give the disease to others, in whom it will be of extreme virulence. 3. It is influenced by atmospheric conditions. 4. Diphtheria is particularly prone to attack children under ten years of age. 5. It is a disease caused by a germ—the germ has a capacity for prolonged existence. 6. Free air kills them. 7. They are capable of producing epidemics through the medium of public water supplies. 8. Epidemics are not produced except by direct infection by persons and children visiting infected houses, etc.

Diphtheria has no special habitat. A cold climate favors the disease, as houses in winter must be kept closed and warm.

The section then adjourned until 10 A.M. the next morning.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE CHOLERA INVASION—OFFICIAL REPORTS—FRESH CASES—LONDON COUNTY COUNCIL—BRITISH SCIENCE ASSOCIATION—PROFESSOR SANDERSON'S ADDRESS—RELATION OF BIOLOGY TO EXACT SCIENCES—SECTIONS OF BIOLOGY, CHEMISTRY, AND ANTHROPOLOGY—DEATH OF THE MEDICAL CENTENARIAN—DEATH OF SURGEON-MAJOR PARKE—LONDON WATER SUPPLY—THE ROYAL COMMISSION REPORT—QUALITY—QUANTITY—COUNTY COUNCIL'S EXPLORATION—DEATH OF "CLAY OF MANCHESTER," OR THE "FATHER OF OVARIOTOMY"—BRISTOWE MEDAL—REGISTRATION OF MIDWIVES—CHOLERA—JENNER—EXHIBITION.

London, September 16, 1893.

Although in some quarters there was a disposition to make light of the invasion of cholera which I reported in my last, there can be no doubt that the few cases that have occurred are now causing some anxiety. On Thursday the Local Government Board issued an official statement showing which were cases of the Asiatic type, and that some others were not of that character. Dr. Thorne summed up his statement by the remark that "the history of the more recent occurrences, and their isolated character, may be regarded as reassuring respecting the immediate future." Last evening a further official statement was issued by Dr. Thorne, to the effect that no further deaths had occurred from the disease up to midday at Hull, Grimsby, or Cleethorpes. Only one fresh attack occurred at Hull, and three at Grimsby. Some reported attacks at Bingley turn out not to have been cholera at all. The outbreak at Ashbourne affected fifteen persons, with nine deaths, and all had been using a contaminated well, to which the symptoms are attributed. "Stringent measures are being adopted, and no fresh attack has been reported." I may add that in several localities sporadic cases of a suspicious character have occurred and caused alarm. All are being carefully investigated.

The London County Council has taken an important step. Their medical officer has been authorized to obtain a bacteriological report from Dr. Klein in all cases of suspected cholera in the county. A letter has accordingly been sent to each medical officer of health, informing him of this and inviting him to send early information of suspected cases. The Local Government Board is a party to this arrangement, and therefore no hitch is likely to occur, and it will certainly be a relief to medical officers of health to be able to obtain, without delay, an expert opinion on a suspected case. It is still generally thought in professional circles that we may escape a serious epidemic.

This week the British Association for the Advancement of Science has held its sixty-third annual meeting, the town chosen for the gathering being Nottingham, and the president, Dr. Burdon-Sanderson, the professor of physiology at Oxford. This association is usually attended by a considerable number of scientists, as well as by those who cultivate science in a dilettante sort of way. Naturally medical men hold their own at the congress, and an eminent biologist as president is to us an attraction.

The proceedings commenced on Wednesday, with the meeting of the general committee, the appointment of sectional officers, and other formal business. In the evening Dr. Sanderson delivered his presidential address. He dwelt for a moment on the influence exercised by the association, and lamented that England did not take her part in the full development of natural knowledge. He then took up the subject of biology, which he had chosen for his address. The word biology, so familiar as comprising the sum of the knowledge acquired concerning living nature, did not come into use until the present century, being first employed by Treviranus, whose conception of the science still expresses its scope. The origin of life the president pronounced to be a "riddle that lies outside our scope," though he admitted no seriously minded person doubted that organized nature, as we observe it, has become what it is by a gradual perfecting process or advancement. The founders of modern physiology are Müller, Brücke, DuBois-Reymond, Helmholtz, and Bernard. The great advance in the middle of our century was due to a change of method, not of doctrine. Analyzing a vital process so as to bring its components into relation with physical or chemical standards, is the only mode of investigation that promises satisfactory results. Organism is a fact, said Dr. Sanderson, which encounters the biologist at every step. In referring it to a principle, such as adaptation, we do not explain it, and no explanation will be attainable until the conditions of its coming into existence can be subjected to experimental investigation, so as to correlate them with those of processes in the non-living world. Physiology can never become a mere branch of applied physics or chemistry, although there are parts of physiology in which we may directly apply the principles of these sciences. There is, then, no doubt of the advantages which physiology derives from the exact sciences, though they in turn can hardly benefit to the same extent from our science. Nevertheless there are some points in respect of which physiology has contributed to the advance of chemistry and physics, and there are methods, both physical and chemical, which were first devised for physiological purposes.

The president's address was listened to with great attention, and the usual vote of thanks heartily given. On Thursday the eight sections set to work in earnest, the president of each opening its proceedings with an address. After Dr. Sanderson's address medical members would naturally compare it with what passed in the sections of biology and chemistry. In the former Canon Tristram was to have presided, but was absent, and his address was read for him by Sir W. Flower. The canon discussed biology from the point of view of an old-world naturalist, and warned the observer of facts not to become a mere materialist. The poetic faculty, the imaginative, the emotional, the spiritual, all went to make up the man, and if any of these were missing the man must be incomplete. He said the life of that great master, Darwin, showed the danger of concentration upon one side only of nature, and illustrated the law that the spiritual faculty lives or dies by exercise or the want of it, just as does the bodily. Professor Emerson Reynolds presided in the chemical section, and while fairly noticing what had been done in the chemical education of medical men, put in a plea for better instruction in experimental methods. Dr. Robert Munro presided over the anthropological section, and claimed that his science embraced all the materials bearing on the origin and history of mankind. He traversed the hopothesis of natural selection, and urged that many of the existing tribes of savages are probably more degenerate than their forefathers. There must be truth in the tradition of the fall of man. The progress of humanity was in the main steady, but slow. The civilized world of our times had brought about a code of social and moral laws, obedience to which was virtue, and in the words of a profound thinker, involved a course of conduct in all respects opposed to the struggle for existence. In place of ruthless self-assertion it demanded self-restraint; in place of thrusting aside and trampling down competitors, it required a person not merely to respect but to help his fellows. Its influence was directed not so much to the survival of the fittest as to the fitting of as many as possible to survive. It repudiated the gladiatorial theory of existence.

Our medical centenarian has fallen a victim to influenza complicated by embolism. He was taking his usual constitutional only four days before his death. Dr. Severin Wielobycki was born January 8, 1793, and so lived one hundred years and eight months. He was a Pole, fought for his country's freedom as a cavalry officer in thirty-six engagements, but had to flee when Poland fell. In 1841 he took his M.D. at Edinburgh, and afterward practised in Nova Scotia, England, and Scotland. He retired twenty-eight years ago, and has lived in London or its suburbs since. In January last his medical friends joined in his centenary ovation and rejoiced to find him so hale, although he had previously had two attacks of influenza.

Surgeon-Major Parke, of African fame, died suddenly on the 10th inst., when on a visit to the Duke of St. Albans, in Scotland. His priceless services in the expedition for the relief of Emin Pasha were enthusiastically acknowledged by Mr. Stanley, and are familiar to all who know anything about African exploration. He was received with honor by the public as well as by his profession when he returned home. But the government of the day gave him no mark of honor—perhaps because he was only a doctor and partisans of politicians were clamorous, while Parke's modesty and sterling worth would be satisfied with the consciousness of duty well done, lives saved, dangers and hardships bravely endured. His "Experiences in Equatorial Africa," and his "Guide to Health in Africa," contain much interesting and valuable matter.

LONDON, September 23, 1893.

The Royal Commission on the London Water Supply have presented to Parliament their report, which is much more favorable than has been generally expected, both as to quantity and quality. The commission was composed of men of high scientific authority and will naturally carry great weight. In this report, though pessimists have been predicting a water famine at an early date, we are calmly assured that we need not go beyond our own watershed to obtain an abundant supply for all our needs, and that if the population doubles itself in the next thirty or forty years there would be enough and to spare, with proper management. The commissioners estimate that by supplementing the river water from the chalk which underlies London, a daily quantum of thirty-five gallons a head for twelve million inhabitants could be obtained, and that is the population for which it is estimated provision will be required in 1931. In times of drought the supply runs short, but in rainy seasons floods cause much mischief. To equalize the supply it is proposed to construct at different points of the river's course enormous reservoirs in which to store flood water and let the impurities subside. Thus the water passing into the filters would not be turbid—subsidence having previously taken place. In regard to quality, the commissioners propose that the conservancy should be entrusted with much larger powers and enabled not only to prevent pollution of the river itself but to deal with its tributaries. This is a most important point, for the pollution of these tributaries is a constant source of danger. The commissioners accept the terrible lesson of Hamburg and Altona as to the value of filtration, but declare it must be supervised vigilantly to secure its being of the best kind. It is suggested that regulations should be formulated by experts, and their enforcement trusted to the official water examiner, who could be enabled to act instead of merely advise. The expense of this and of more inspectors, it is held, should be defrayed by the companies, and as they make enormous profits by their monoply it seems only just they should be compelled to supply a pure article. They will no doubt rejoice at the report, for they had reason to fear an end of their mo-

nopoly. At the present time the County Council is employing surveyors to explore various localities in order to obtain fresh sources of supply. The tenor of the report of the commissioners will, however, discourage the council and perhaps definitely postpone this proceeding.

The "father of ovariotomy" died on Tuesday the 19th inst. He was nearly ninety-two years of age, having been born December 27, 1801. He was for many years familiarly spoken of as "Clay of Manchester," where he practised for the whole period of his consultant career. When he began that he had had fifteen years' experience of general practice. Charles Clay's first ovariotomy was performed in September, 1842, just fifty-one years ago, and for fifteen years he was almost the only operator. He was overworked and had to take some rest, but in that time he brought the history of his three hundred and ninety-five cases before the Obstetrical Society. It was after this that Spencer Wells went to Manchester to see Charles Clay operate, and (in 1858) began to follow the example. In 1845 Clay removed a fibroid uterus by abdominal incision, anticipating Koeberlé by eighteen years. Charles Clay's career is historical in more senses than one. He wrote many contributions on his special subject for the periodicals. His "Handbook of Obstetric Surgery," with its ninety plates, must be known to many of your readers. He was an amateur geologist, and much interested in numismatics. But it is as the "father of ovariotomy" in England that "Clay of Manchester" will be remembered. He retired from practice years ago, and has been enjoying a green old age with good health and the use of all his faculties. He took great delight in his garden, but he could also travel considerable journeys without difficulty. On the day of his death he went to see a house which he thought of taking, but after returning home an attack of syncope closed a remarkable life.

Nearly £400 has been been raised as a testimonial to Dr. Bristowe, who out of the money has founded and endowed a "Bristowe medal," to be awarded annually for proficiency in pathology to a student of St. Thomas's Hospital.

The Select Committee on the Registration of Midwives has given rise to unusually lively discussions. The evidence offered in some instances has been of rather a startling kind, and those who gave it have been subjected to criticism. Wherever general practitioners meet, the midwives' question in some form is sure to come up. It is very much, if not altogether, a general practitioner's question, and the obstetric consultants can hardly be able to see it in the light it is viewed by the vast majority. A little strong language is therefore not unnatural on the part of those who fear the encroachments of a new order of inferior competitors; but why the consultants should give way to temper in the matter is another question. They are not agreed among themselves, and their controversies are quite as bitter as those of their humbler brethren whose interests are in danger. An obstetrician to a great hospital, who can always rely on the pick of trained nurses, may know very little of the conditions under which an accoucheur has to work in a crowded city slum or a remote village hamlet. The highly placed gentlemen who can command every help might well leave to those concerned the description of other positions, or if determined to interfere might spend one of their vacations as *locum tenens* for one of their overworked brethren, to see for themselves how such practice is carried on.

We have had a daily official report as to cholera during the week, and, throughout, these reports have been favorable. Very few fresh cases at the ports have occurred, and some of the suspected cases have turned out to be not cholera. One supposed London case on being sent to a hospital was found to be strangulated hernia. If we are able to ward off our danger a little longer we may escape this year. But how about next year? The predictions of the epidemiologists have been right in other places—that a recurrence is likely—will it be so with us? The question already occupies attention.

A very interesting collection of relics of Jenner, the originator of vaccination, has been exhibited at Bristol, and it is hoped that London may also have an opportunity of seeing them, and possibly of retaining them permanently.

SPECIALTIES IN MEDICINE AND SURGERY.

To the Editor of the Medical Record.

Sir: Is a specialty in medicine or surgery possible? This is no new question, but one that is being constantly and anxiously asked by the young and old of the medical profession. The longer I live, the more I read and observe, the more convincing become proofs that a specialty in the true sense is not possible, unless we broaden the sphere instead of curtailing it. Take, for instance, the very latest in laryngology and rhinology. "Epilepsy is a frequent result of peripheral irritation." So says one of our best known throat and nose specialists. Again, he tells us that the nose is frequently the seat of sufficient irritation to excite a variety of reflex manifestations. Granting the truth of this doctor's observations, who will gainsay or question that the amount of peripheral irritation at the other openings of the body may not have a most important bearing?

Do we not in chronic diseases need a specialty that requires us to examine all the other openings that may present peripheral irritation? One that will not alone allow us to treat a chronically elongated palate, causing an irritating throat cough, or hypertrophied tonsils, yielding a product of mucous or calcareous matter, thickening the voice, and congesting the fauces, pharynx, etc? One that will not alone allow us to cauterize the turbinates of the nose, thereby curing almost immediately sciatica, headache, and vertigo?

Do we not need a specialty that demands the closest scrutiny of all the organs, no matter from which comes the wail indicative of functional derangement? The tortured, irritated brain, the stuffed nose, the congested kidney, the irritable stomach, the debilitated sexual organs, the failing heart, the clogged liver, the impeded lungs, may all be so many index-fingers pointing to peripheral irritation as the cause.

Is it safe, then, in any form of chronic disease, to say that it originates in and affects only the one organ. Someone has wisely and truly said: "Every local chronic disease has its genealogy, and he who can trace this life-history is a good diagnostician."

Another has equally well said: "An organ is but a part of the general system, and is so intimately connected with every other tissue that it is seldom that a single organ is diseased alone. Every disease is due to an impression made upon the nerve-centres supplying the part, changing its capillary circulation."

Is it in the organ from which the pain begins, in the nerve-centre, or in the organ affected? This is the nut for the specialist to crack. Here comes in the ability of the diagnostician.

That peripheral irritations cause pneumonia, pleuritis, coryza, etc., is true, and a specialist might perhaps treat more successfully; but he must not forget in these cases the central impressions, septic or simple, affecting one nerve-centre primarily, but secondarily affecting another centre, causing a far-away inflammation. A cough and spasm of the larynx may come from papillus on the tongue, or laryngeal spasm from phimosis, or papillæ and pockets in the rectum; hæmorrhoids may also produce it. The general depressing reflex effects of pockets and papillæ of the rectum are, comparatively speaking, unknown to the medical world.

To appreciate reflexes is to be a diagnostician. The great vaso-motor system is always thought of, but we must not forget the sympathetic system. When we realize that the sexual organs carry on their functions by means of nerve-filaments sent to them by the presiding genius of life in the human economy—the great sympathetic—as extensive in their area of influence as the mucous membrane, muscles, and glands that con-

stitute the sexual apparatus, it is not difficult for us to see how a diseased condition affecting any part of this apparatus can, through these nerve-channels, send continuous streams of disturbing influence to any and all parts of the system. A sensitive spot in the throat may produce general neurasthenia; hypertrophy in the nose causes neuralgia, asthma, etc.; and so will rectal troubles.

It has also been said that it is a pathological fact not to be denied, that the irritation of an organ invariably starts at its mouth: and it is communicated from thence to the body of the organ. Thus, a diseased external os uteri will cause inflammation of the neck of the organ, and an irritation of the internal os may set up endometritis and other difficulties that assail the body of that organ; while many troublesome ovarian weaknesses are unquestionably due to the irritation of the uterine orifices of the Fallopian tubes, which travels up and affects the body of the gland.

Again, it has been said that reflex phenomena may completely overshadow exciting causes. I am sure, too many reflex diseases are treated as idiopathic ones. In these cases, when it comes to treatment, the unsound trees are shorn of their foliage and the diseased roots left untouched. The rectum is particularly entitled to careful study and consideration; its anatomical characteristics demand it, for the reason of dissimilarity to other sections of the alimentary canal. The outlet is prone to take on various forms of difficulty that create an infinite variety of symptomatic phenomena. It is in the countless array of symptoms, subjective and objective, of orificial pathology and treatment that are so deeply interesting. Any physician can account for a majority of the chronic diseases and derangements of the pelvic viscera by looking to contiguous organs for the primal point of disturbance. A contracted meatus not of special significance as an entity, reaps its dire consequences upon the prostate, bladder, kidneys, or other structures. If this be so, why not look for reflex trouble from a rectal sphincter that is in an unmitigated state of contraction? The operations of the sympathetic nerves are beyond the control of man. We can nurse and propitiate the cerebro spinal, but the great ganglionic, by day and by night, works independent of us. I have seen many cases of prostatic trouble, irritability of the urinary bladder, of the uterus and ovaries, created solely by a fissure of the anus, or rectal papillæ or pockets with inflamed and infiltrated edges. In conclusion, let me urge the consideration of a specialty that includes at least all the openings of the human body, as peripheral irritations there begin. An irritation of an organ truly starts at its mouth. So let us examine the mouth and throat, then the lungs, not forgetting the heart, and so on through the body to the lower openings; the revelations there to be found are sometimes astounding.

S. H. Linn, M.D.

19 South Clinton Street, Rochester, N. Y.

THE MEDICAL PROFESSION AND DISCOVERY OF AMERICA.

To the Editor of the Medical Record.

In the abstract of my paper on "The Part Taken by the Medical Profession in the Discovery of America," read by me before the Section on General Medicine of the Pan-American Medical Congress, published in the Medical Record a week ago last Saturday, two errors are made, one by commission and the other by omission. The first one is saying the "intentions" of Avicenna, instead of the "opinion" of Avicenna, expressed in his work entitled "De Complexionibus." The error by omission consists in not mentioning the very important fact that, although it is proved beyond doubt that no priest accompanied Columbus in his first voyage, there were two representatives of our profession among his followers, two ship surgeons, or *fisicos*, one named Maestre Alonso, on board the caraval Niña, and the other called Maestre Juan, on the Pinta. The first one was the one who paid with his life his professional devotion, and not Dr. Chanca, as quoted in the abstract made by Dr. Bishop for your journal. Maestre Alonzo was one of the thirty eight men left by Columbus in the fortress "La Navidad," who were all massacred by the native Indians before the return of the discoverer on his second voyage.

Very truly yours,

A. M. Fernandez Ybarra, M.D.

94 West Tenth Street, New York, October 2, 1893.

New Instruments.

A MODIFIED PARKINSON ETHER INHALER.

By W. K. Kubin, M.D.,

interne German Hospital, New York.

The Parkinson Ether Inhaler described in the *Sacramento Medical Times*, March, 1887, has been in use at the German Hospital of New York for more than a year. In our hands it has been found preferable to all other inhalers that have been tried, although several deficiencies have been observed which I have endeavored to correct.

In the first place: We have found that in almost all cases the patient will not tolerate at the outset as great a concentration of ether vapor as results from pouring on the sponge thirty grammes at once, as is recommended by Dr. Parkinson. The patient will struggle, hold his breath, sputter, and in every way give evidence of alarm and dread, thereby counteracting all previous reassurances which may have been made to him. Furthermore, the patient invariably, in his struggles or in his efforts to cry out, will open his mouth and inspire a large amount of cold concentrated ether vapor, which, as is well known, causes troublesome cough and an excessive secretion of mucus.

To avoid these difficulties we have found it necessary to begin the use of the anæsthetic gradually, and to add at frequent intervals a fresh supply of ether. Since the Parkinson inhaler possesses no way of feeding the sponge except through the mouth opening, it is necessary at each addition of ether to remove the mask from the face. During this interval the patient takes two or three inspirations of pure air, thereby prolonging the time it takes to bring about anæsthesia.

In the second place: During an operation about the head, face, or neck, there is nothing more annoying both to operator and narcotizer, than the interference with the hands and instruments of the surgeon necessitated by the frequent removal and replacement of the inhaler.

Finally: It not infrequently happens during the operation that it is required to crowd the ether, and this is difficult to do when the inhaler must be removed from the face for each addition.

To correct these difficulties the idea suggested itself to me to provide means for feeding the sponge without removing the inhaler from the face. This I have accomplished by passing a tube leading to the sponge through the top of the bag, at the upper end of which a small funnel is attached into which the ether is poured. It might be suggested that the Ormsby supply-tube, which is placed laterally on the face-piece, be added to the Parkinson inhaler, but the difficulty with this is, that in most positions of the patient's head, the ether, in order to reach the sponge has to work its way against gravity, and is very apt to flow into the patient's mouth.

This inhaler is essentially the same as that described by Dr. Parkinson, the difference lying only in the addition of the above-mentioned supply-tube, and in the omission of the air-cap.

To the upper part of the wire basket is attached a short tube (F), from the lower end of which branch out three smaller tubes (D, D, D,) which are open below, perforated on the inner side, and curved so that they can

grasp the sponge. A metal cap (B) with an opening in its top, placed laterally, is screwed on to tube F and with it holds fast the bag, which is perforated above. Around the cap (B) as an axis revolves a funnel (A), whose lower opening corresponds in size and position with the perforation in cap B (Fig. III.). In this position of the funnel, ether, when poured in, will flow through the tubes F and D, D, D, directly on to the sponge. When, however, a half revolution of the funnel is made, communication with the sponge is shut off. A small nail (C) protruding from cap B through a slit on the side of the funnel, prevents the latter from making more than one-half a revolution. The air-cap has been discarded simply because it has been found unnecessary. Some air will pass through the funnel if left open, and more, if desired, can be given by slightly tilting the mask from the face. Should the experience of others differ from mine in this respect, the air-cap might well be retained.

To sum up, the following seem to me the principal advantages of this inhaler after having used it in over two hundred cases:

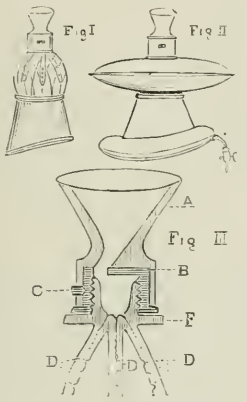

Fig. I. Skeleton of inhaler. Fig. II. Inhaler complete. Fig. III. Cross-section of funnel and supply-tubes.

1. Ease, rapidity, and a minimum of discomfort to the patient in bringing about anæsthesia.
2. Absence of interference with the surgeon in operations about the head, face, or neck.
3. Ability to crowd the ether very rapidly when occasion demands.
4. Smaller amount of ether required (twenty to thirty grammes frequently suffice to bring the patient under).
5. Considerable convenience to the narcotizer.

It will not be amiss for me to add here what seems to me the best way of using the inhaler. A clean sponge, large enough to fill the wire basket, should be placed between the three supply-tubes, and from five to ten grammes of ether poured upon it. The mask is brought close to the patient's face and held there till a certain degree of toleration of the ether is established. It is then placed tightly over the nose and mouth, and at required intervals from two to five grammes are poured into the funnel. It is most advisable to use a graduated chloroform dropper, for with it there need be no spilling, and the amount of ether poured out is better controlled. The mask should be held between the thumb and index finger of one hand, the little finger resting behind the angle of the jaw, drawing it forward, and the middle and ring fingers on the lower border of the inferior maxilla. This grasp enables one easily to tilt the mask, if a supply of air is needed, and leaves the other hand free to pour out the ether or to assist in holding the jaw forward.

This inhaler is now in regular use at the German Hospital, and is giving eminent satisfaction. The instrument is manufactured by Eisner, New York.

Seventy-seventh Street and Park Avenue

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending September 30, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	34	13
Scarlet fever	42	2
Cerebro-spinal meningitis	2	4
Measles	49	8
Diphtheria	93	23
Small-pox	18	10
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

Foreign Body in the Ear for Twenty-one Years.—An interesting case of foreign body in the ear, which had remained without causing any urgent symptoms for twenty-one years, recently came under the notice of Dr. Pritchard. He was called to see a married woman on April 5th, and found her to be suffering from acute follicular tonsillitis (*The Lancet*). She complained of much pain in swallowing and of acute pain in the right ear, the temperature being 103° F. The throat inflammation quickly yielded to treatment, and in a few days the throat had resumed its normal condition, but the earache persisted. Interrogated as to whether she had had any ear trouble previously, she stated that for some years past she had suffered from occasional neuralgic pain and a sensation of "something being in the ear." She did not think she was particularly deaf, but had noticed lately that she had acquired the habit of turning her left ear when listening to any feeble sounds. She then stated that when a child, twenty-one years ago, she remembered placing a pea in her ear in imitation of her nurse, who was performing the sleight-of-hand trick of inserting a pea in the ear and withdrawing it from the nose. She placed a pea in her ear, but was unable to complete the feat. A medical man was sent for, but after repeated attempts all endeavors to remove the foreign body were abandoned, owing to her struggling. It was hoped the pea would "work its way out," and her friends always believed it had done so. Her sense of hearing, tested by a watch, was much impaired, and examination of the meatus revealed a large accumulation of wax. Warm oil was applied on two or three occasions, and the ear was syringed with warm water. After removal of some of the wax a dark roundish body was distinctly visible, adhering to the posterior wall of the canal. Syringing failed to remove it, and a fine silver-wire snare was carefully pushed beyond it and the body was dislodged, which on examination proved to be an ordinary pea. The pea was much shrivelled and a portion of it was covered with epidermis, its presence having set up a hyperplasia of the epidermal layer and a heaping-up of cells around that portion of the pea in contact with the canal wall.

Phenates of Bismuth.—Jasenski (*Arch. des Sciences Biologiques de St. Petersbourg*, T. ii., No. 2, 1893) finds that phenol-bismuth, cresol bismuth, and β naphthol-bismuth, when introduced into the stomach become decomposed there into their components under the influence of the gastric juice. A portion, however, escapes decomposition here, and passes on into the intestine, where it is finally split up. The phenol and cresol, separated from the bismuth, are entirely absorbed, eliminated in the urine as sulpho-conjugate acids, or combined with glycuronic acid; the β naphthol is only partly eliminated in this manner, the remainder passing unchanged through the whole length of the digestive tract, and being expelled with the fæces. In the urine of man the bismuth is not discoverable, being entirely eliminated in the

fæces. Notwithstanding the toxic properties of the phenols, none of these preparations have any toxic action even if given in daily doses of 5 gm. This is probably due to the extreme slowness of the decomposition which goes on in the intestine. The author therefore recommends these preparations in all cases where the ordinary preparations of bismuth and phenols were formerly employed.

The Modern Treatment of Sea-sickness.—A correspondent of the *British Medical Journal*, who has recently crossed the Atlantic says: "A formula which has been much recommended by Dr. Charteris, of Glasgow, and which has well stood the test of Atlantic Ocean experience, is based on the combination of 20 gm. each of chloralamid and bromide of potassium; both of them individually useful, but which seem to act better in combination, and may be flavored with licorice or tincture of orange-peel. A 'specialty' has been made of this under a 'registered' trade title, I know not by whose authority or for whose benefit. A very effectual and pleasant form in which to administer this compound is as follows: Tinct. aurantii recentis, ℥ iv.; chloralamide, ʒ ij.; pot. bromidi, ʒ ij.; aquæ chloroform., ʒ ij.; aquæ dest., ad ℥ viij.; dose. ¼ part. Chloralamide is incompatible with alkalies, and is soluble in about 1 in 20 of water. This combination is particularly valuable in the frequent cases of sea-sickness, with insomnia; it does not interfere with the digestion or temperature. Dr. Johnson, of the Cunard steamship Aurania, tells me that he has tried it extensively, and with excellent results. Where there is much pain as well as irritability, the sipping of ice-water is often very soothing; and it is here that cocaine tablets of $\frac{1}{20}$ or $\frac{1}{10}$ of a grain find their appropriate sphere of usefulness. They are usually prepared with chocolate, quickly eaten, and swallowed at intervals of half an hour or an hour. Where there is pallor, faintness, and more or less tendency to 'collapse,' as in some severe cases, very great relief may be found from the use of nitroglycerine tablets. The tablets have the nitroglycerine in solution in chocolate in a perfectly safe, stable, portable, and palatable form. Tablets of $\frac{1}{200}$ of a grain are a sufficient dose to ward off sea-sickness. The small bulk, precise dose, and quick action, if well munched and swallowed, render this mode preferable for administering nitroglycerine."

Night Air.—Before we can hope to fight consumption with any chance of success we have to get rid of the night-air superstition. Like the dread of cold water, raw fruit, etc., it is founded on mistrust of our instincts. It is probably the most prolific single cause of impaired health, even among the civilized nations of our enlightened age, though its absurdity rivals the grossest delusions of the witchcraft era. The subjection of holy reason to hearsays could hardly go further. "Beware of the night wind; be sure and close your windows after dark!" In other words, "Beware of God's free air; be sure and infect your lungs with the stagnant, azotized, and offensive atmosphere of your bedroom." In other words, "Beware of the rock-spring; stick to sewage." Is night air injurious? Since the day of creation that air has been breathed with impunity by millions of different animals —tender, delicate creatures, some of them—fawns, lambs, and young birds. The moist night air of the tropical forests is breathed with impunity by our next relatives, the anthropoid apes—the same apes that soon perish with consumption in the close, though generally well-warmed, atmosphere of our northern menageries. Thousands of soldiers, hunters, and lumbermen sleep every night in tents and open sheds without the least injurious consequences. Men in the last stage of consumption have recovered by adopting a semi-savage mode of life, and camping outdoors in all but the stormiest nights. Is it the draught you fear or the contrast of temperature? Blacksmiths and railroad conductors seem to thrive under such influences.—*Good Health.*

The Universal Increase of Insanity.—Why is it that the ratio of insanity in all civilized countries, notwithstanding the increased asylum accommodations and the vastly improved treatment, is steadily increasing, having gone up in England since 1862 from 1.81 to 3.11 per cent., and even more than that in this country. Will statesmen and philanthropists turn for a time from the well-beaten road of ordinary political measures and charities, to point out a remedy and dam at the source this ever broadening and deepening stream, whose tributaries are in almost every town and hamlet in the land. The causes are so many and so varied, from heredity down the long line of worries, of alcoholic and narcotic poisoning, that the wisest statesmanship and the most profound study of psychology and mental science must be brought into action to meet intelligibly abuses and habits so closely entertwined with almost every phase of social and industrial life. As there can be no one specific, the remedy must be general, gradual, and constant. It has been well said that the manifestations of insanity are nothing further than distorted or diseased manifestations of mental activities, which by themselves are present in every man. These mental activities, the outgrowth of physiological conditions, to a certain extent hereditary, are increased or distorted by different influences. An influence which to one would be comparatively harmless, to another would be productive of disastrous results. The education of the will and the training of the intellect and sentiment are the main factors in building up a harmonious and healthy physical and mental organization, and through these channels must come these healing influences which will calm the turbulent passions which bring those influences which excite unhealthy mental activities under the control of reason.—*New York Medical Times.*

The Digestibility of Tripe.—Tripe consists of the soft muscular walls and mucous membrane of the stomach of ruminant animals with a small proportion of delicate omental fat adhering, from which, however, all fibrous portions of the serous covering, or peritoneum, have been removed. From frequent experiments it has been proved that tripe stands high in the list of albuminous substances that are quickly acted on by the gastric juice and reduced to a state of solution, and has therefore acquired a reputation for digestibility. But plain boiled tripe in itself is a very insipid article of food, and in order to make it palatable the art of the cook has to be invoked, which, while making it more "savory," causes it often when so served to be an offence to the stomach. The usual mode of serving tripe in England is to boil it with milk and onions, and there can be little doubt that such a combination is not particularly digestible. Tripe is also sometimes fried in butter, but unless very carefully cooked it is apt to become leathery. If only plainly boiled in water it requires a considerable amount of condiments in the shape of salt, pepper, and mustard to make it acceptable to the palate. Therefore tripe, as usually cooked, though an excellent dish for strong stomachs, is, owing to the ingredients added to it, not always so suitable for persons of weak digestion as has been supposed. One interesting point regarding the consumption of tripe is the local favor it receives in different parts of the country. It is a favorite dish among the artisans of the large towns in the midlands, while it is apparently disregarded in the south and west. A similar local partiality prevails in France, where Normandy has acquired a special repute for the dish *tripes à la Normandie*, which is served in many Parisian restaurants as a delicacy of no mean merit. London also consumes a large quantity, where during the winter it is a favorite supper dish among the artisans and lower middle classes. The preparation of tripe, as far as London is concerned, is in the hands of only a few firms, who supply the small retail shops. London tripe, moreover, has obtained a high repute on the Continent, one firm exporting annually $200,000 worth, chiefly to Russia and Baltic ports.—*The Annals of Hygiene.*

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THE TREATMENT OF ITCHING.[1]

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NEW YORK.

In the management of pruritus, as of any other disease, the first consideration should be directed to what causes the trouble. The adoption of measures tending to remove any accidental conditions or influences through which it may be occasioned, is therefore important. Such causes include, besides various local sources of irritation, certain remote or general diseases, and furnish the *indicatio causalis* in its more limited sense. This, however, states the scope of the problem only partially. What is of most importance first, is to establish principles of treatment fitted to those more special and most essential causes that constitute the necessary conditions of the disease, and whence we derive the *indicatio morbi*. These causes I have endeavored to trace elsewhere,[2] and it is they which afford the only intelligent basis for the therapeutics of pruritus.

We have seen, first of all, that the chief underlying condition in pruritus is hyperæsthesia, whether in its common signification of an excessive irritability of the sensory nerves, or in the sense of an excess or engorgement of sensation. The prime indications, then, are to allay irritability and to divert or annul the excess of nerve excitement. The natural impulse of every afflicted animal is to resort at once to what is the simplest mode of relief, namely, to divert the irritation or sensory engorgement by scratching. But while affording temporary relief or relief that in ordinary, or what may be termed physiological, itching may be permanent, in morbid pruritus, in pruritus dependent on a pre-existing state of hyperæsthesia, the effect of this method is to augment the excitation in the aggregate—which augmentation will almost surely be followed by another engorgement with a greater access of the pruritic excitement. Furthermore, the resulting hyperæmia, itself a common exciting cause of itching, will very likely do more than offset the temporary diversion that the scratching affords, and besides this, the injury done the epidermis renders it each time more vulnerable and more sensitive to irritating contacts. Scratching is an abuse of what would *à priori* seem to be a rational method of treatment.

Should the morbid irritability which is the predisposing condition in pruritus essentialis be dependent upon some removable cause, the problem becomes a comparatively simple one. Thus, if due to rheumatism or gout, especially when a recent effect, by the use of anti-rheumatic or antilithic remedies the hyperæsthesia may disappear and with it the pruritus. Similarly, in appropriate cases, cholagogues, purgatives, or diuretics might possibly suffice to effect a cure. But as a rule, the hyperæsthetic tendency must be accepted as a necessary and more or less permanent condition, and the best we can do is to avoid or mitigate the consequences. As in all irritable conditions, the most important thing is to secure rest, first by removing so far as possible all local excitants, and, that not sufficing, by the employment of calmants.

[1] Read before the American Dermatological Association at its 17th annual meeting, held at Milwaukee September 5, 1893.

[2] See Etiology of Itching in the MEDICAL RECORD of October 24, 1891, and also the same subject under Pruritus Essentialis in Morrow's forthcoming System of Dermatology.

A. **Measures to Remove Local Excitants.**—These will include, first of all, such as directly tend to prevent scratching. To admonish the patient to refrain from this is usually of little avail. Restraint may be possible during waking hours, but at night, when the trouble is always at its worst, and especially during the state of somnolence midway between sleeping and waking, no will-power can prevent it. It can only be avoided by first mitigating the *besoin* through the aid of antipruritics. It is of some advantage, however, for the patient to know that relief may often be obtained through other tactile diversions than those which are effected by the sharp finger nails, as, for example, simply by firm pressure of the part, or by stroking the itching surface with the finger pulps or with a soft cloth or brush (especially if first lubricated with vaseline), using some pressure but without rapid motion. Irritating contacts of all sorts should be most scrupulously avoided. Attention should be given to the underclothing. Woollen is almost never tolerated. The clothing next the skin should be of the softest material—cotton, linen, or possibly silk. Of further importance is the avoidance of immoderate temperatures, whether of heat or of cold, and especially of sudden changes, which are peculiarly apt to excite itching. The temperature of the surface should be kept as equable as possible.

The local excitants may not only be extra cutaneous, but also intra-cutaneous. Often they are incidental to the trophic changes of one of the so-called pruriginous diseases; in which case the treatment of the pruritus is included in that of the disease of which the itching is a symptom. When they arise from toxic materials conveyed to the skin by the blood, we endeavor to eliminate these materials by depurative remedies, more especially diaphoretics and diuretics; while disturbances of the nerve-terminals that are directly transmitted from the interior, are best relieved by means of the substitutive irritants to be considered in a later section (*D.*).

These measures failing or proving insufficient to secure the desired rest, it becomes necessary, in pursuance of this object, to have recourse to certain sedatives. Some of these, that are used internally, are designed more particularly to neutralize the hyperæsthesia; others, including both internal and external remedies, serve rather to directly annul the pruritic excitement.

B. **Sedatives.**—Used internally these are apt to be disappointing. The degree of general sedation that is required to affect the nerves of the skin in so intense a disturbance as pruritus often is, affords a sufficient reason why this method of treatment is usually objectionable. Further than this, the depressing and atonic after-effect on the nervous system tends to exaggerate the general hyperæsthesia, which is already essentially an atonic condition, and thereby increase the tendency to itching. Especially objectionable on this score are most of the narcotic sedatives. The bromides, on the other hand, are often indispensable, and may be required in liberal doses. It is important to avoid the enervating effects of loss of sleep, and for this purpose sulphonal or some other hypnotic is occasionally needed. In connection with this class two internal remedies, which have been especially recommended by Bulkley, are here worthy of mention. They are cannabis indica and gelsemium. The former is known to be a cutaneous anæsthetic as well as analgesic, and by virtue of the former quality should be useful in pruritus. Whether its usefulness in this disease is chiefly owing to this or to another quality, which will

be referred to later in connection with the sensory stimulants of the next following class, is uncertain. Gelsemium has proved of benefit in some cases (more especially, according to the writer's experience, in protracted cases of urticaria), but the doses required are so large as to forbid their long continuance. It will be referred to again under motor depressants (*F.*). Finally, the antipyretics phenacetine and antipyrine have some effect upon pruritus, though less than upon the sensation of pain.

The local sedatives used in this disease are generally far more satisfactory in their effects than the remedies just considered, especially where the disease is limited in extent. They are for the most part agents that tend to retard vital action. The fact that many of them are antiseptics, probably implies something more than mere accidental coincidence. Under both aspects their effect is to depress, if not impair, vitality. Incidentally they are nerve depressants. Acting upon the superficial nerve-endings, they tend to retard the so-called "nerve vibrations," or molecular movements. How they exert this action through the intact epidermis is somewhat difficult to understand, but of the effect produced there can be no question. Typical among the remedies of this class is the group which includes carbolic acid, salicylic acid, salol, and thymol, all antiseptics, and all having undoubted virtues as antipruritics.

Carbolic acid, the most important member of this group, is perhaps, all considered, the most reliable and most generally useful antipruritic which we possess. It was well named by Unna, "the opium of the skin." In pure solutions, or in combination with other remedies, and even when comparatively weak, its quieting effect on pruritus rarely fails. The two to five per cent. solutions which are most commonly employed, though often of benefit, do not, however, bring out the full antipruritic effect of which this drug is capable. Watery solutions require to be used of less strength than those in oils or fats. They are more apt than the latter to be corrosive, and also, being more quickly absorbed, are more liable to be followed by general toxic effects. For these reasons carbolic acid is preferably employed in oils or ointments, for, though the absorption is slow, the effect passes off less quickly, and the stronger solutions are comparatively safe. With proper precautions as to its use an oily solution of from twelve and a half to twenty-five per cent. may be used with perfect impunity, provided the area to which it is applied is of moderate extent.

The following "antipruritic oil" has been largely employed by me for years, both in the local and in the so-called universal forms of the disease, with no more untoward results than now and then a trifling dermatitis, when through oversight the patient has been allowed to make the applications too frequently, or has continued them too long. The formula is:

℞. Acid. carbolic..... ℥ j–ij.
Liq. potass..... ℥ j.
Ol. lini..... ℥ j.
M. Sig.: Shake before using.

An alkali and an effective keratoplastic agent (the linseed oil) serve both as adjuvant and corrigent to the action of the carbolic acid. To correct the disagreeable odor of the linseed oil, a drop or two of the oil of bergamot may be added.

Salicylic acid and salol, though less energetic in their effects, act similarly to the carbolic acid. They may be used in combination with other drugs, or by themselves in oil or ointments, or sometimes alcohol, and also in superfatted soaps.

Thymol, which is a cutaneous anæsthetic as well as antiseptic, is also in certain cases of universal pruritus an admirable antipruritic, but on account of its irritating effect, cannot be used where the skin is very sensitive. It is well combined with menthol in a three per cent. (of each) alcoholic solution. Doubtless other remedies of like character might, with advantage, be added to this group.

The corrosive chloride of mercury is another well-known antiseptic which has also a reputation as an antipruritic. It is difficult to explain the latter action, except by regarding this agent as a local sedative by virtue of its hostility to all forms of life, and its ability to retard excessive vital action. The marked anæsthesia of the skin that is produced by concentrated solutions is doubtless due to this property.

Certain other local sedatives of the skin, though not in the antiseptic group, yet apparently owe their effect to a similar retardation or arrest of molecular movement in the affected sensory nerves. Such is cocaine. The decided anæsthetic action of this drug upon mucous membranes, upon abraded cutaneous surfaces, or when used subcutaneously, would seem to indicate it as a specific in pruritus. For two reasons it has proved disappointing: First, because of the difficulty of making its action felt through the intact epidermis, and second, for the reason that any tissue, when long or frequently subjected to its action, suffers a certain atony and enervation that seem to render it more predisposed after than before to the irritation or irritability the drug was intended to alleviate. This latter is a common effect of prolonged use in the eye or nose, and I think I have verified the occurrence of similar consequences after prolonged use in pruritus progenitalis. These objections by no means preclude its use entirely. It is often resorted to with most satisfactory results in localized forms about the mucous orifices, upon raw or abraded surfaces, and sometimes with appreciable effect even where the epidermis is apparently intact.

Other sedatives of this class are cyanide of potassium (℥ j., water, Oj.), chloroform (℥ j., glycerine, ℥ ss., water, ℥ viij.), and camphor in combination either with an inert powder or with chloral, the mixture being properly diluted. It is probable, however, that the last-named remedies act not only, often not chiefly, as sedatives, but partly as substitutive irritants—a class to be considered later on. Of a somewhat similarly complex nature is the antipruritic effect of hot water, which calms the nervous excitement, apparently not only by direct sedation of the sensory nerves, but also by its general relaxing effect, removing pressure or constriction of the nerves; and furthermore, at the beginning at least, it is a powerful substitutive irritant. To be effective, the temperature should be over 100° F., or as hot as can be tolerated, and the applications should be prolonged for several minutes.

It is evident that the impaired conductibility of the sensory nerves with hypopselaphesia, which, as I have endeavored to show, is in greater or less degree an essential condition of the pruritic sensation, though it is not necessarily antipathic to the hyperæsthesia, nevertheless affords special and independent indications for treatment. While the condition of hyperæsthesia calls for depression, or at least repression, that of hypopselaphesia demands a certain kind of stimulation. Hence we distinguish in the therapeutics of pruritus a third class of remedies.

C. **Sensory Stimulants.**—The kind of stimulation which it is intended by these to effect is not of that general character which simply augments the common irritability of the skin, but it tends rather to enhance its higher and perceptive sensibilities. By its action the function of the sensory nerves is so improved that sensations of contact or temperature, which through obstruction are exaggerated into the fret of itching, find freer channels of escape and a more normal interpretation in the sensorium. It is more especially in such forms of pruritus as are associated with hypopselaphesia as a predisposing cause, as, for example, in pruritus senilis, that remedies of this class are indicated. An example of this kind of stimulation has already been alluded to in speaking of the mechanical modes of relief that may be substituted for scratching. It probably constitutes an inci-

dental effect in the action of various antipruritic remedies more properly belonging to other classes. There is one, however, that would seem to legitimately belong here, namely, electricity, whether in the form of galvanism or faradism. Under one form or the other this agent has sometimes proved to be of decided benefit. Perhaps the most effective agents of this class are those that act upon the nervous centres. Thus strychnia, in those cases of pruritus which we may call atonic, is a remedy of value. Cannabis indica, which is a decided stimulant to the nervous centres and the higher sensibilities, may owe its efficacy in this disease quite as much to this fact as to any anæsthetic effect upon the commoner sensation of the skin. Its action in pruritus, therefore, would be analogous to that which has given it its reputation as a remedy for sexual impotence.

We have seen that a frequent cause of cutaneous pruritus is reflex irritation. Herein is discovered another factor in the indicatio morbi. Reflect the irritation back to its original source, or taking the initiative as aggressor, invade some inoffensive region that may be made to sympathize with the skin, and make it bear a part of the skin's burden. It suggests our fourth class of remedies.

D. **Substitutive Irritants.**—The rationale of the good effect often witnessed in cutaneous irritations from cathartics, hepatic stimulants, and diuretics is that by these means a remote disturbance is created into which is diverted a portion of the cutaneous excitement. It is a method of treatment that can seldom be spared, and the aid thence derived may make all the difference between success and failure of local and more direct measures. But in pruritus the sympathetic substitution is not always effected between the skin and a remote or interior part, but between different portions of the tegumentary surface, and what is more, between different kinds of sensation in the skin. Pain is antipathic to pruritus, and one may be substituted for the other. The effect of smarting or stinging applications in relieving pruritus is thus explained. It doubtless explains part of the effect of thymol, chloroform, hot water, and other burning or pungent applications. It is analogous to the action of the "sensory stimulants" described above, where tactile impressions, which on account of the impaired or occluded media tend to degenerate toward common sensation, are deflected into the channels of higher special sense. A similar interchange occurs, as we have already seen, between the contact sense and the sense of temperature. Both cold and heat beyond a certain point annul the sensation of itching. Slight changes in temperature often evoke it, but so long as the sense of temperature remains at all noticeably affected, it dominates the itching, which, for the time being at least, remains in abeyance. We sometimes avail ourselves of this substitutive action by using cold applications, but the stimulation which these cause is apt to aggravate the pruritic excitement afterward. But a remedy which is one of the best palliatives of itching that we have, and which is especially noteworthy in this place, is menthol, together with the peppermint preparations generally.

Menthol is commonly referred to as an anæsthetic, but it relieves itching as it relieves pain, not by direct inhibitory action on the molecular movements of the sensory nerves as do the true anæsthetics, but chiefly, as I believe, if not solely, through substituting an exaggerated temperature sense for the perturbed sense of contact, or for the sensation of pain. Goldscheider,[1] who has carefully investigated this subject, attributes the sense of coolness that follows the application to the skin of menthol or other peppermint preparation, to a specific action on the special nerves of temperature, causing what is virtually an hyperæsthesia of the temperature sense. He also found incidentally that when a portion of the skin, as for example the forehead, had been rendered insensible to cold by application of ice and then afterward mentholized, the sensations of burning, pins and needles, and the like which the cold produced, remained unaffected in spite of the menthol; from which it is inferred that the latter is not a true anæsthetic. Of its antipruritic virtues, there can be no question. It is usually employed in alcoholic solutions (grs. v.–x. to ℥ j.) and may be used in ointment. It is also with advantage combined with salol or thymol.

A fifth class of remedies often indicated in pruritus essentialis may be designated as follows:

E. **Alteratives of Cutaneous Nutrition.**—They include not only absorbent and anticatarrhal remedies to remove the products and curtail the processes of incidental inflammations which may act as contributory causes of the itching, but such agents as tend to control blood-supply and overcome hyperæmia. In this way act diaphoretics, and possibly diuretics, as well as by their substitutive and eliminative or depurative action. Thus it is probable that jaborandi, which is extolled by so many writers for its efficacy in this disease, acts in all three ways. It determines excitement to the secretory instead of the sensory organs of the skin; it promotes the elimination of noxious matters which are irritants to the nerves, and, finally, the diaphoresis depletes the blood-vessels. This drug is especially useful when the skin is hot and dry, and where it has become the depot of noxious materials deposited from the blood, as, for example, in the itching of icterus.

The local remedies belonging to this class include certain resinous or tarry substances which are especially indicated in associated catarrhal conditions, and have a certain controlling effect upon hyperæmia. Such are ichthyol (five to ten per cent.), tumenol (twenty-five per cent. or pure), occasionally tar, resorcin (three per cent.), and benzoic acid or benzoin.

When considering the etiology of pruritus, one of the incidental causes of the deranged function of the sensory nerves was ascribed to a condition of impaired nutrition in the skin with defective metabolism. In conditions such as this it is a commonly accepted opinion that agents which promote oxidation are especially indicated. Now it is a significant fact that a large proportion of the remedies that allay itching are oxidizing agents; while, on the other hand, a reducing agent rarely if ever has any direct antipruritic effect. It is the keratolytic substances, which are also as a rule oxidizing agents, from which we largely select our antipruritic remedies. Such are the whole group of antiseptics, the mineral and vegetable acids, and also the alkalies. The oxidizing effect may in many instances be subordinate to other actions they possess, but a property common to them all can hardly fail to have some therapeutic significance.

Led by these considerations, it seemed to me that the solution of hydrogen peroxide should be an appropriate remedy for pruritus, and since I first began its use, some few years ago, I have had abundant verification of the fact that it has antipruritic virtues, more especially in cases of pruritus universalis. It may be used as a toilet wash two or three times a day. In place of this, and perhaps with equal benefit, I have also used an aqueous solution of ozone known commercially by the hybrid name "aquozone."

The final indication for treatment which the etiology suggests, relates to the hyperkinesis of the arrectores pilorum muscles. Inasmuch as the spasm affecting these muscles is always secondary to some other condition, measures which relieve the latter will generally be the ones best calculated to dispose of the former, and ordinarily no more special treatment of this contributory factor is needed. But to be complete our classification of remedies should embrace one more class.

F. **Motor Depressants.**—Among the internal remedies already mentioned gelsemium and jaborandi belong certainly to this class, and it is very possible that to this fact they owe in some measure their antipruritic effects. Another remedy which, though recommended more especially in urticaria, should be mentioned here is atropia. It is probable that the good effect of this drug in urticaria

[1] Archiv f. Phys. u. Anat., 1886, p. 555.

when used in full doses, such as are always required to produce this effect (from one hundred and fiftieth of a grain upward), is due not to the primary, but to its secondary, action. The primary action, attendant upon the smaller doses tends to excite muscular contractions and cause increased vascular tension. In its secondary action its effect is just the contrary of this; the muscles relax, the vessels are dilated. It is doubtless through release of tension in the cutaneous muscles that this drug acts so favorably in the urticarial hyperkinesis.

Of the local remedies belonging to this class the first place unquestionably belongs to the hot-water applications. Here also might perhaps be included certain local sedative remedies, such as hydrocyanic acid, the cyanide of potassium, conium juice, tincture of arnica, and chloroform, all of which are decided depressants of motor action.

Having thus in a general way met the various indications for treatment in pruritus essentialis, it remains to briefly apply the therapeutic principles laid down to certain special forms of the disease. It must be confessed that, however clear these principles may appear in the abstract, to apply them in the concrete, *i.e.*, to individual cases, is not always easy. Often, and in large degree, we must rely on empiricism in its better sense. To know the *rationale* of things is most desirable, but in practice experience is often truer than theory.

Thus in pruritus senilis, while theory suggests more especially the sensory stimulants described under *C*, so complex often are the morbid conditions involved in this form of the disease that recourse must be had to remedies of very diverse nature. In some respects theory and experience here correspond. The successful employment of faradism in senile pruritus, that has received abundant testimony, is scarcely susceptible of any better explanation than that afforded by the theory of its restoring or stimulating an impaired sensory function. It by no means always succeeds, but in uncomplicated cases it rarely fails of good effect if persisted in. It has seemed to me, however, that it was often effective when applied only to the spine, and not directly to the pruritic surfaces. It is best administered by means of a brush electrode. The cold douche is another remedy in the same line that is sometimes of benefit and is best used in the morning. In one or two cases patients have assured me that prolonged relief was obtained by certain frictions of the skin at night, as with the rough mitten sometimes used in bathing. Such a remedy, however, could rarely be recommended as a safe one. For internal use the strychnia and cannabis indica, which are stimulants to the nerve centres, are appropriate remedies, and have already been referred to. The tincture of cannabis indica may be given in doses gradually increased from ten drops to a scruple or half a drachm, three times a day, unless it should disturb the digestion. The indicatio causalis in this disease opens a wide field for therapeutic measures Those included in the class of "alterations of cutaneous nutrition" [*E*] are particularly important. Internally antilithic remedies, alkalies, diuretics, and cholagogue cathartics, are required to meet special indications. Locally we may employ the alkaline baths, the hydrogen peroxide, and the oxidizing substances of the antiseptic group. Nor can the sedative applications of class *B* be dispensed with. Which one will answer best can often only be determined by trial. A ten per cent. solution of salol in benzoinol is of some use; the carbolic oil mentioned above is more powerfully antipruritic, but requires caution It is best suited to limited areas of itching. Menthol also acts admirably in many cases, either alone, or what is better, in combination with some emollient substance. If too strongly or too frequently applied it is liable, like carbolic acid, to irritate and thus render the skin more sensitive. A remedy highly extolled by the English is liquor carbonis detergens (a three per cent. solution in water).

In pruritus hiemalis an all important measure of treatment is protection against cold The sole cause of winter pruritus, aside from a special predisposing hyperæsthesia, is lowered temperature. The first cold day evokes it, and, after raging through a succession of cool days, the first warm day will make it disappear till again the weather changes. The temperature effect may be forestalled to a certain extent by protecting clothing. A minor point, though by no means an unimportant one, is, that in making changes of clothing the undergarment should remain as light as that worn during the warmer weather. If wool is required it should be worn outside this thin undergarment. Sometimes it is well to bandage the legs (where the trouble is always worst), at least for the latter part of the day. At night a wet pack for this portion of the body often gives much relief. A five per cent. salol superfatted (Eichhoff's) soap may be moistened and smeared over the itching surfaces, where it is allowed to dry on. The surest relief when the itching areas are of limited extent (and such often is the case) is afforded by the antipruritic oil mentioned above. Each morning care should be taken to dress any excoriated or inflamed spots, due to scratching, with some healing, emollient application such as the Lassar paste. Otherwise there is much danger of eczema being developed. Indeed, I believe it possible that a large proportion of the chronic eczemas of the legs owe their first inception to this very cause, *i.e.*, the scratching occasioned by pruritus hiemalis.

In pruritus of the genito-anal region, while all possible is being done to remove or abate any accidental cause which may be discovered, the choice of direct antipruritic remedies will depend much on the nature and complications of the case. Special treatment is required for cases associated with eczema or other inflammatory disease. For the itching, perhaps no remedy is more generally useful than hot water. The patient squats over a vessel in which there is water as hot as the hand can bear, and after a little the temperature can be tolerated still higher. With a handkerchief held as a swab between the fingers, the water is sopped on for a period of three or four minutes. The part is then gently dried with a soft cloth and well powdered with talc or other inert substance. In all of the forms of pruritus in this region carbolic acid is of very great value, but as already intimated, to be of much avail it must be used strong. The above-mentioned oil is especially useful in these regional forms, but should not be used too frequently nor where much inflammation prevails. Menthol in a thin ointment (grs. v.–x. to ʒ j.), or the peppermint water, is also extremely useful, and salol may be added with advantage. All of them should be followed by copious applications of a soothing powder. In some cases, more especially where the parts are sore or abraded from long scratching or rubbing, the greatest relief will be afforded by cocaine, whether in a four per cent. watery solution, or, what is better, in some soothing emulsion or thin ointment.

For pruritus vulvæ some of the special remedies advised are, painting the parts every night with compound tincture of benzoin, or, in some cases where the surface is thickened from long irritation, occasionally touching the affected region with a rather strong solution of nitrate of silver (℈j.–ʒ ss. in water ʒ j.). Many authorities have advised applications of corrosive sublimate (one-fourth to one grain, water one ounce), or the following prescription, recommended by Bartholow, will sometimes be found useful:

℞.	Hydrarg. chlor. corros.	1 part.
	Alum.	20 parts.
	Starch	100 parts.
	Water	2,500 parts.

Whenever the itching affects the mucous membrane it can generally be relieved by cocaine.

For pruritus scroti Crocker advises painting the part with a solution of silver nitrate (grs. x. to ʒ j.) in sweet spirits of nitre. In inveterate cases I have sometimes employed, with considerable success, a method of treatment first suggested by Vidal. It consists in scarifying the entire itching and usually thickened surface with

Squire's scarifier or an ordinary scalpel. The incisions need not go much beyond the epidermis. But there is an advantage in drawing a little blood. Afterward the part is dressed with a thin layer of Lassar paste which may contain a little cocaine. The layer should be thin, for it is a fact of common experience that ointments are rarely well borne in pruritic affections of the genito-anal region.

The remedies most useful in pruritus ani are the same, generally, as those for the vulvar and scrotal forms. Sometimes relief can be obtained here only through substitutive irritants. A liniment containing chloroform or camphor in sufficient strength to cause considerable smarting will occasionally give relief to the intense itching which can be secured in no other way. A method suggested by Allingham would perhaps belong more properly to the class of sensory stimulants: A bone plug an inch and a half long, and about as big in diameter as the end of the forefinger, is slipped into the anus on retiring, and retained in position through the night by means of a compress.

CASES OF ALARMING EPISTAXIS OF GRIPPAL ORIGIN, AND DANGERS OF POST-NASAL PLUGGING.[1]

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With but limited time wherein to justify the honor conferred upon me to appear before this meeting, I have hurriedly collected my notes on a few cases of serious epistaxis of grippal origin. My only justification in selecting a subject so frequently discussed as epistaxis lies in the fact that its connection with the pandemic visitation of influenza needs more than the passing notice given it by modern observers. I hope, also, to elicit your views and experience on this subject, and to affirm your condemnation of the still too general practice of post-nasal plugging in cases of hemorrhage.

Case I.—My first case is the one of Mr. B——, a lawyer, aged thirty-eight years, married, who has always enjoyed a strong and healthy constitution until December, 1890, when he is stricken down with an attack of influenza which leaves after it severe and frequent headaches. A year after, on January 29, 1892, patient is again taken sick with a second attack of influenza of a more violent type, characterized, this time, by unusual febrile and nervous excitement. When scarcely convalescent, during the night of March 4th, Mr. B—— begins to bleed freely from his left nostril. His family physician, Dr. George K. Pratt, is called upon at once. On arrival he finds that the bleeding, after lasting fifteen minutes, has stopped spontaneously, to return, however, that morning in a more violent form, notwithstanding the use of a very hot solution of tannin. In the absence of Dr. Pratt, Dr. Charles Chassaignac is hurriedly sent for, as patient's weakness is quite marked. Other general methods having failed, the doctor concluded to use a piece of gauze somewhat in the umbrella fashion; in this glove-like hollow, absorbent cotton was packed.

Hemorrhage had discontinued when Dr. Pratt came in, but started again during consultation of attending physicians, when it was decided to plug posteriorly and then anteriorly. The right nostril began to bleed; had therefore to be plugged anteriorly. Blood then found its way through the nasal canal at the puncta lacrymalia, and at intervals in the throat, and also externally.

March 5th.—I then visited the patient in the morning at the request of the attending physicians. Found him weak, but hemorrhage having stopped at that time, advised a plan of expectation and his removal to the Eye, Ear, Nose, and Throat Hospital in case of recurrence.

Hemorrhage recurred in the afternoon, when he was brought to the hospital at 4 P.M., where he was received by my friend and assistant, Dr. Charles J. Landfried, to whom I am greatly indebted for his valuable collaboration in the management of the case and for some of the clinical notes thereon.

After removal of plugs Mr. B—— bled profusely. The nostrils were washed with a solution of boracic acid in very hot water, a twenty per cent. solution of cocaine made use of, and the seat of the hemorrhage located at the posterior part of the nares on the crest of a septal ridge, on a line with the inferior turbinated body.

The hemorrhage was practically controlled with the galvano-cautery, but the patient was so thoroughly exhausted that I thought it advisable to proceed at once with a continuous antero-posterior packing. A strip of iodoform gauze, doubled on itself, is carefully but quickly inserted between the opposing surfaces, and the ends are firmly matted down with a flat applicator in the lower meatus, taking care, however, not to push the gauze back any farther than the choana. The packing is continued until it has reached the upper limit of the ridge. To insure its fixity, it is built upon with additional strips until the middle turbinated body is reached, when the gauze is inserted in the crevices between that organ, on one part, and the septal and lateral walls of the nostril on the other. The dressing is completed by filling up the left nasal chamber with strips of gauze.

Upon examination the right nostril is found comparatively free, but the drums in both ears are found to be highly hyperæmic, and the patient complains of severe pains. That night both ears began to discharge a sero-sanguinolent liquid.

March 6th.—The hemorrhage having recurred it was quickly controlled by a new packing.

March 9th.—Packing removed and nostrils properly irrigated.

March 12th.—A renewal of the bleeding takes place, when it is thought necessary to proceed to a third continuous antero-posterior packing, this time in bed on account of the extreme weakness of the patient. This third dressing was left *in situ* five or six days, and allowed to eliminate itself spontaneously, the precaution being taken to cut the ends of the strips of gauze as they present themselves in the oro-pharynx, or at the entrance of the nostril. I will mention that during all this time patient evidenced signs of mastoid implication on the left side, this trouble being finally corrected by appropriate treatment of the ear.

March 16th.—Mr. B—— is seized with fever, which is the initial symptom of an attack of pseudo-rheumatism presenting the form of subacute polyarthritides, approaching in their onset and character infectious pseudo-rheumatism.

March 28th.—Patient is considered sufficiently well to be removed to his home, where his family physician had to contend against a return of the rheumatism during three days.

March 29th.—Was only then able to visit his office on crutches. Had by this time lost fifty pounds. Was subsequently treated for his hypertrophic rhinitis and nasal spur.

To-day, only, more than one year since his grippe and epistaxis, is Mr. B—— beginning to feel like himself. It is to be noted, though, that his violent and frequently recurring headaches, which had followed his first attack of influenza, have never returned from the date of his final hemorrhage.

Case II.—Dr. H——, aged sixty, of sound parentage, an inveterate smoker of cigarettes, is a sufferer of chronic rhino-pharyngo-laryngitis, but very active and in every other respect of a healthy constitution. No history of any previous hemorrhage. Was scarcely convalescent from a severe attack of influenza, which was at that time raging in his locality, when, on January 13th, he was

[1] Accepted as a candidate's thesis for Fellowship in the American Laryngological Association.

seized, while blowing his nose, with a severe epistaxis. The hemorrhage was so abundant and so persistent, notwithstanding all the attempts made to stop it, that the doctor concluded to take the train to New Orleans with the intention of coming to the Eye, Ear, Nose, and Throat Hospital.

The bleeding became so violent on the train, and the patient was so weak, that upon arriving at the depot his friends hastily repaired with him to the Charity Hospital, a short distance off.

My colleague, Dr. R. Matas, who was at the time in attendance in his wards, at once took charge of the case, and considering the abundance and the duration of the epistaxis, as also the extreme pallor and weakness of the patient, concluded to plug at once the posterior nares on the affected side; both nostrils had also to be plugged anteriorly. Then only did the hemorrhage stop. The patient was then transferred to the Hôtel Dieu. Five days after I was asked to join my *confrère* in consultation. The posterier plug, which was found firmly impacted, was removed by means of a curved post-nasal forceps. It was impregnated with a foul discharge of a very offensive odor. A severe purulent rhino-pharyngitis and a double otitis media suppurativa were not long in developing, and required the careful attention and constant direction of one of my assistants, Dr. Charles J. Landfried, before the double complication could be mitigated. Our patient's general condition was then thoroughly examined into without finding any organic trouble. The day after the removal of the plugs a swelling of a reddish, shiny appearance was noticed on the left side of the bridge of the nose, near the inner angle of the eye. It was the beginning of an attack of erysipelas, which was ushered in by a high fever and delirium. The disease travelled all around the face and scalp, and during twenty days we more than once despaired of the life of our *confrère*.

A month after his discharge I had occasion to make a careful rhinoscopic examination, which revealed the existence of a rhino-pharyngo laryngitis, with a well-defined septal ridge in the affected nostril, which impinged on the corresponding swollen inferior turbinated body in the rear part of the nasal cavity. The right side was rather roomy.

A treatment of this local condition was advised, but not followed, owing to the anxiety of the doctor to return to his practice. When last heard from he informed me that in September last he had a recurrence of the hemorrhage lasting ten hours, which he finally controlled by an antero-posterior plugging with absorbent cotton. He adds that it has taken him more than a year to recover his former strength.

Case III.—Mr. G——, a clerk, aged forty-five, in enjoyment of good health, is stricken down with an attack of influenza in the early days of March, 1892. Had scarcely resumed his occupation when, on March 26th, he is taken with a violent hemorrhage of the left nostril. Dr. Samuel Logan, his family physician, being indisposed, Dr. F. W. Parrham is called in, and after packing the nostril with absorbent cotton controls the bleeding for the time being, and advises him to consult me. The next morning patient is awakened by a recurrence of the epistaxis, the blood finding its way this time into the throat and other nostril. He comes to my office in a state of great exhaustion, and is immediately directed to the Eye, Ear, Nose, and Throat Hospital, where, with the assistance of Dr. Charles J. Landfried and the resident surgeons, the nostril is cleaned and irrigated with a hot boracic acid solution and rubbed with a twenty per cent. solution of cocaine, as is also the posterior surface of the velum. A septal ridge is found running backward, where it comes in contact with the inferior turbinated body. It is from this point of contact that the blood is oozing. As in Case I., the opposing surfaces are touched with a hot electrode and cauterized until the hemorrhage is stopped.

In this case, to obtain a firmer packing and to obviate the tendency of the gauze to slip back, I made use of a temporary post-nasal plug of wet absorbent cotton, which being larger than the choana was tightly drawn against it by means of the thread kept against the floor of the nostril, and held out through the anterior nostril by an assistant. It is with this wall to work against that I proceeded, as in Case I., to build a continuous antero-posterior packing until the whole nasal chamber was plugged firmly behind and more loosely in front. The post-nasal plug of absorbent cotton is then easily removed, when, by posterior rhinoscopy and retraction of the velum with Voltolini's palate retractor, the packing can be seen nicely and solidly in place. I had formerly made use of it to advantage in cases of intra-nasal operations in children, to whom I had to administer chloroform, with a view of shutting out the blood in the recumbent portion from the naso-pharynx.

No unpleasant symptoms followed the manipulation; at no time was there even a temporary hyperæmia of the drum, nor any fever, nor, in fact, much inconvenience, with the exception that on the third day a strip of gauze found its way into the post-nasal space and slipped down into the pharynx, where it had to be cut through the mouth. This had to be done several times, when, on the fifth day, the remnants of the gauze were removed and the nostrils cleansed and irrigated. No recurrence of the hemorrhage from that date. Patient left the hospital on April 10th with nasal breathing very much improved to what it was previous to his sickness.

Case IV.—Miss C. N——, aged seven, of a decidedly brunette type, has always been a healthy child; had a light case of measles two years ago. Two months after, she received a blow on the right side of her nose with a square block of a toy game of patience, hurled at her by a younger sister. This accident was immediately followed by a light epistaxis, this being the first bleeding she ever was subject to.

As a result of this accident, according to the mother's statement, her nasal breathing became somewhat labored; her nostrils block as if she had a cold in the head, and the secretion of the nose, offensive at times, would occasionally determine an erythematous or eczematous eruption at the entrance of the nose.

January 24th.—The child is taken sick with an attack of influenza, with fever and predominance of catarrhal symptoms, for which quinine and appropriate treatment is administered by Professor E. Souchon, the family physician.

January 27th.—At 5 A.M. patient began to bleed from the right nostril, the hemorrhage seemed to stop after a little while, when all at once, one hour after, the child vomits a large quantity of blood, and continues to bleed for two hours, mostly from behind. When the family attendant arrives he finds that the hemorrhage has stopped spontaneously. The little patient is very pale and weak, but the fever, previously high, has subsided with the epistaxis.

January 28th.—She is comparatively well and plays all day in bed. At night hoarseness and croupy cough.

January 29th.—Fever has returned, and is accompanied with an incessant cough.

January 30th.—The fever, which continues quite high, is reduced with a small dose of phenacetin, administered in place of the quinine.

At 4 P.M. there is a recurrence of the hemorrhage from the same nostril, at first in front, but soon after from the back of the throat, the child swallowing the blood to vomit it in large clots. Upon the advice of Professor Souchon I am sent for, in order to make an examination of the nostril. The child, when I arrived, had moderate fever and a decided laryngo-bronchial cough, no pulmonary complication, but was bleached and very weak. Blood was trickling in the throat along the back surface of the posterior wall of the pharynx.

An anterior plug of absorbent cotton, soaked in a ten per cent. solution of cocaine was inserted in the nostril and secured firmly against the cartilaginous septum, with

no other effect than to perhaps increase the post-nasal bleeding. The whole length of the nostril was then thoroughly cocained with cotton wrapped around a flat applicator, and soaked in the solution. A stenosed condition was found in the posterior half, especially of the lower meatus and region of the inferior turbinated body.

That condition, the age of the patient, and poor illumination made it impossible to exactly localize the seat of the bleeding, beyond the fact that it originated in the rear part of the cavity.

It was stopped only after a careful packing, so far back as seemed advisable, with two strips of iodoform gauze firmly matted down on the floor of the nostril, and built up until the middle turbinated body was reached.

January 31st.—Fever has subsided to return again the next day, when quinine was administered.

February 3d.—Professor Souchon removes the anterior strip of gauze, which was beginning to slip out and was worrying the child. No hemorrhage.

February 4th.—Although very weak, patient is brought to my office; I then removed the deep antero-posterior plug of gauze and proceeded to a thorough examination of the nostril with a bright reflected sunlight and a five per cent. solution of cocaine. Was quite surprised to find a marked osteo-cartilaginous septal ridge impinging, more particularly in the back of the nostril, on a turgid but comparatively pale inferior turbinated body, on which cocaine seemed to have little or no effect.

From that day up to February 21st patient seemed to be doing fairly well—tonics are administered and highly nutritious food taken. She is brought hurriedly to my office by her grandmother's nurse, as the hemorrhage has returned again, mostly from behind. This is stopped with the galvano-cautery applied over the crest of back part of ridge, and also opposite surface of superior turbinated body.

For greater safety the nostril is again packed with three continuous antero-posterior plugs of iodoform gauze. A slight fever and watery oozing followed for two or three days after this procedure, probably as a reaction of the galvano-cautery. The slough was eliminated on the eighth day, when the plugs are removed and the mother is instructed to keep the child's nostrils cleaned and properly disinfected.

At no time did any unpleasant symptoms follow the local treatment, but the weakness of the child was so pitiable, her complexion so waxy, the anæmia so acute, almost pernicious, I may say, that although the urine revealed nothing abnormal, I advised that an examination of the blood be made, the spleen and liver examined, and the child sent out to the country as soon as possible, regardless of any risk that might be taken by a return of the hemorrhage, which, in fact, never returned.

April 24th.—Upon inquiry the parents reported subsequently a progressive aggravation of this acute hydræmia, the last phase of which is marked by an absolute anorexia and incoercible vomiting. Five or six physicians have succeeded each other in the management of the case, but to no avail.

May 2d.—The family has finally consented to the removal of the child to the country, but with little or no hope of recovery, as the child, from what the father relates to me to-day, is considered very low.

May 8th.—Patient died, thoroughly exhausted from intense anæmia, and without, as her last attendant, Dr. Bayou informs me, having presented the slightest indication of any organic disease.

In reviewing these four cases the following features are most noticeable.

1. The association of these epistaxes with influenza, whether, as in Case IV., the hemorrhage takes place in the midst of an attack, or, as in the other three cases, it occurs during the decline or convalescence of the disease.

2. The coexistence in those cases of severe grippal epistaxes of a previous condition, in the bleeding nostril, of an obstructive character, localized in the rear part of the nasal chamber.

3. The danger of post-nasal plugging, which should be abandoned in the treatment of most, if not all, such cases, in favor of a much more simple, more effective, and safer procedure—the continuous antero-posterior packing, with or without the preliminary use of the galvano cautery.

Hemorrhagic complications have been sufficiently frequent during the last epidemic of grippe to justify some observers in classifying such cases under the name of "hemorrhagic influenza." In view of the fact that acute coryza seems to be one of the most constant of the manifestations of influenza, it is to be wondered at that nasal hemorrhage has not been reported oftener in this disease. Its frequency has varied materially in different epidemics. We find that during the outbreaks of 1411, of 1580, of 1727, and of 1837, the occurrence of epistaxis was considered as a favorable symptom, while in 1743, according to Des Sauvages, the appearance of the nasal hemorrhage very often preceded or accompanied a fatal termination.

In 1782 (in Lunenburg) epistaxis would seem to have played the most important part in the symptomatology of the disease. As a matter of fact, epistaxis is very generally mentioned as a symptom in most all old reports of epidemics of grippe.

In 1889–90 several cases of epistaxis were observed by Dr. Paul Tissier, in the service of Professor Proust, at the Hôtel Dieu, of Paris. M. Comby cites examples (eighteen cases out of two hundred and eighteen) of repeated nasal hemorrhage in children. Jacobi says it is exceptional. Lublinski has observed in influenza a hemorrhagic rhinitis; A. Ruault and Mesnard have also seen epistaxis in the course of influenza. Herzog states that he has often met with that symptom. Nemier asserts that epistaxis at times shows the implication of the nasal fossæ. Haberman, Robinson, Cheminalde, and others call attention to this symptom, the bleeding in some cases being quite profuse and recurring at different times.

Holtz mentions the case of a strong and healthy man, thirty-six years of age, whose life appeared to be at one time in danger as a result of this complication. Dr. M. Litten, in the great recent work on influenza, published by the Society of Medicine of Berlin, writes, in the chapter on Symptomatology that "epistaxis was quite common during the epidemic (1889–90); it returned in cases of relapse, and was sometimes so profuse that it was considered uncontrollable by the observers." Sokolowski, after mentioning that he has observed epistaxis in the course of different forms of influenza, adds, "The only complaint, even of two patients, was the profuse epistaxis, which lasted for several days. They applied for help on account of persistent nose-bleeding, from which they never before suffered."

These, with a very few others, are, as far as my knowledge and researches go, the few mentions made by observers of that manifestation. We must, therefore, admit that epistaxis, while not a very constant symptom, is still frequent enough in the various epidemics of influenza of which we have the narrative.

As to the time of appearance of grippal epistaxis, Tissier and others, like Robinson, state that it has generally shown itself, at least in the epidemic of 1889–90, as an initial symptom. Antony has seen it recur one month in the case of a soldier. In my four cases the nasal hemorrhage took place once in the course of the attack (Case IV.), and in the other three cases it must be considered as a sequela.

No late observer, outside of C. Fiessinger, has attached to the epistaxis any such influence as reported by the old writers on the evolution of influenza. He says that repeated epistaxes in the beginning or during the course of the disease seem to lead rapidly to a favorable termination. Some authors mention that, as in Case I., it has at times relieved a very painful symptom, viz., cephalalgia, or reduced the fever for the time being, as in Case IV.

Before discussing the question of the pathogenic diagnosis of these epistaxes and the mechanism of their pro-

duction, permit me, gentlemen, to insist on the fact that in none of my cases did a careful examination reveal any visceral taint or any diathetic alteration, nor was there in the history of the patients any reference to hemorrhage, with the exception of Case IV., previous to the attack of influenza. I am, therefore, justified in excluding from the pathogeny of these epistaxes such etiological factors as organic disease of the heart, chronic hepatic or renal alterations, hæmophilia, and many other general affections, which, we all know, will determine at times very serious nasal hemorrhage. I have often met with cases of this kind, two of them in connection with influenza, which I have studiously avoided to include in the above-mentioned ones, as besides influenza other well-known causes could be incriminated. Those observers who have, like myself, noted this complication in connection with grippe, have all been very reticent on its mode of production. As to myself, without pretending to link these hemorrhages to an absolutely defined pathogenic formula, I am inclined to believe that they reflect the impress of the infectious character of influenza, associated with the otherwise secondary element of stenosis. These hemorrhages would, according to that view, be due to the presence of pathogenic micro-organisms in the blood (if this etiology is the correct one) introduced through the respiratory tract. They would give rise to certain intra-nasal vaso-dilatations, which, in the already stenosed parts, would be more accentuated. It is possible that the microbes may generate toxines, which, through the nerve-centres, exert a direct irritant action upon the vaso-motors at those weak points. The general blood dyscrasia would, therefore, like in other infectious fevers, have its share in the production of these epistaxes. These views I must, however, admit are as yet purely theoretical, and must remain as such until the specific germ of influenza is discovered and reproduced to the entire satisfaction of bacteriologists.

While admitting the primary influence and importance of the grippal infection in the production of these epistaxes, which is, by the way, the only manner in which to account for other hemorrhages, as reported in the last epidemics of influenza, I cannot overlook another feature as presented in my observations, viz., the fact that the bleeding invariably proceeded from a more or less stenosed nostril; the roomier nostril, free of septal deformity, played no part in the production of the hemorrhage. As to its seat, it was clearly defined by rhinoscopic examination; in three of my cases it did not originate at the antero inferior part or at the centre of the quadrangular cartilage, the point of election in the great majority of cases, as established by the researches of Chiari, Voltolini, Baumgarten, Kiesselbach, Calmeltes, and many others, and as confirmed by daily experience. I therefore feel justified in considering the stenosis as a factor in the production of the hemorrhage, to this extent at least, that it has allowed the intra nasal vaso-dilatation due to the influenza to so intensify the obstruction as to cause an attrition of the opposing surfaces, and subsequently an erosion of the parts, especially over the crest of the projecting septal spur. On this point I can only agree with Dr. Bosworth, as against the views of Jurasz and others, when, referring, it is true, to the anterior part of the nostrils, he writes: "Slight deformities of the septum are probably the cause and source of an epistaxis more frequently than any other lesion met with in the nasal cavity, the apex of the projecting portion becoming the seat of a slight erosion, probably as the result of attrition by the dust-laden currents of the inspired air."

A few words now, gentlemen, before closing my remarks, on the question of post-nasal tamponning, which, as demonstrated in Cases I. and II., and although performed by skilful surgeons, has evidently led to very unpleasant and very dangerous complications. I would certainly not mention this antiquated procedure before a meeting of specialists, but for the fact that it is unfortunately too generally advocated in text-books on general urgery, and, I regret to say, even by some writers on our specialty, like McBride, W. Spencer Watson, and others. As to myself, I firmly believe, with Chatelier, that there are very few cases, if any, of epistaxis of such a character as to compel us to revert to post-nasal plugging. Leaving aside the hemorrhages of grippal origin, I have had to attend six other cases of very serious epistaxis from different causes. In all of them I have been uniformly successful in arresting the hemorrhage by the method of continuous antero-posterior packing, and in none of them have I had to register any unpleasant complications. I would further emphasize the comparative innocuity of the method by stating that I have very often resorted to this mode of dressing after prolonged intra-nasal operations in the posterior half of the nostrils, without any untoward effect directly attributable to the method, notwithstanding the fact that the gauze was left in place several days.

In order to insure this immunity from complications, due attention must be paid, 1st, to the preliminary disinfection of the nostril; 2d, to the packing material employed, strips of iodoform gauze being the best, as suggested several years ago by Fletcher Ingalls; 3d, to the proper anæsthesia of the nostrils with a solution of cocaine, which is also a good hæmostatic; 4th, to the continuity of the packing, which allows of no accumulation or retention of blood or of secretion apt to undergo decomposition.

In concluding this contribution, and judging from the serious character of nasal hemorrhages in these four observations, I could infer, as against the opinion of most other observers, that epistaxis of grippal origin presents an unusual gravity; do not understand me, however, as formulating such a diverging opinion. I can only say in explanation of this gravity, that I must have met, as we all do in practice, with an unlucky series, and that such cases must be considered exceptional in the history of epistaxis of grippal origin.

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QUESTION OF MECHANICAL VIOLENCE IN THE TREATMENT OF DIPHTHERIA.

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This disease, which has for centuries past called forth the best thought and efforts which the profession could bring to bear against it, is still able to baffle us as regards its etiology and as to the best method of treatment. Of a certainty remedies enough have been proposed, lauded, and sunk into oblivion, after having been used for a brief period. Powerful germicides have been used to destroy the germs, as corrosive chloride of mercury, carbolic acid, salicylic acid, and a number of other products of advanced chemistry; digestive agents, such as pepsin, pancreatin, papayotin, and many others to digest the membrane, and cause it to fall from the throat an inert digested mass, also remedies to sweat it off, as pilocarpine and many another variety of remedy which are well known to you all, have been used on some hypothesis, or fact if you will, and found to fail.

During all this looking for a specific to destroy the germ or ruin his habitat by digesting it away from him, or again with our sweating remedies to remove it from the tissues, it seems to me that many lose sight of the fact that while we are dealing with a germ which we wish to destroy, we are also dealing with a being which is worthy of every effort on our part to preserve.

In order to render clear the points I wish to make in my paper I will briefly review the pathological conditions found in the nose and throat in a case of diphtheria of the same. Roughly speaking we may divide the invasion into three types:

1. A mild case, when with a moderate amount of redness and œdema of the throat we have a thin friable membrane extending over the tonsils. The mucous membrane under it is congested, infiltrated with leucocytes, and its epithelial covering is dead and incorporated in the false membrane. A removal of this membrane even ever so gently is apt to leave behind a few bleeding points and a surface denuded of epithelium, which forms an excellent soil for the implantation of the germs.

2. When the necrotic process has gone deeper and involved the mucous membrane proper, causing it to be incorporated with the false membrane. The false membranes in this case are thicker, more deeply imbedded and hard to remove, and if removed by violence leave a bleeding ulcerated surface, which generally becomes covered again with false membrane, and the structure under it undergoes necrosis, leaving a deeper ulcer than we had before. The torn and bleeding surface forms an excellent soil for the implantation and growth of the bacilli, and the lacerated vessels a ready channel for the absorption of the poisonous ptomaïnes.

3. When we have a deep sloughing ulcer covered with dark tough membrane formed by the deeper structures of the tissues. The membrane is often dark from hemorrhage into its substance and tough, as it contains connective tissue and mucous membrane in its mass. The parts surrounding this necrotic area are very œdematous and infiltrated with leucocytes. The epithelium is at times dry and shiny, but generally covered with pus and stringy mucus. The epithelium is already dead, or so far advanced in the process of the coagulation necroses that it will soon fall off, leaving a surface raw and ready to be infected. This condition of the epithelium and the mucous membrane surrounding the already infected area is one of great importance to consider, and on it hinge the remarks which I wish to make in regard to mechanical violence by the use of the swab, or in efforts to remove a membrane.

I might here with propriety speak of a type of case which is not so common, but is, nevertheless, very fatal in its effects. It is when we have with but little œdema or redness, a punched-out ulcer of the tonsil, with a thin but very closely adhering membrane on its surface. It is slow in its progress, but sure to proceed by a gradual widening and deepening process to a fatal termination. It does not seem to cause sloughing *en masse* so much as it does ulceration. It would seem to one that you would be able to destroy it at once by strong carbolic or other caustic, but often after each application, no matter how thorough, it gets deeper and wider, and ends in death, slowly. A point in its pathology is the fact that we have little or no glandular reaction against it, and the lymphatics of the neck are not at all, or very little, swollen by the process. It would seem rational to suppose that the inflammation of the glands stops the circulation of poison-bearing lymph on its way to the blood; but in these cases the glands not being inflamed, the lymph goes unobstructed to the blood, bearing the poisonous ptomaïnes into the general circulation.

The fact is noticed by many writers on diphtheria that in diphtheria of the tonsils we have little or no lymphatic enlargement, but in the class of cases of which I speak, it is very conspicuous by its absence.

I have had four of these cases. The first two ended fatally, while I was treating them with caustics, stimulants, tonics, and so on. The third I resolved to treat more in a general way by antiseptic sprays, stimulants, and tonics, but it did not improve, and counsel taken resulted in my reasoning being overruled and caustics and the swab being used, with the same result as in the previous cases, viz., a rapid increase of the ulceration and a speedy termination of the case. The fourth was like the third, except that my consultants both gave a favorable prognosis, only to see the child die in two days under a vigorous course of treatment.

The constitutional symptoms in these cases are slight at first, with but little fever or pain and no restlessness, but day by day the patient gets weaker, with a gradual acceleration of the pulse. There was free perspiration in all of these cases.

Of the false membrane itself, W. Gilman Thompson says: "Diphtheritic inflammation is characterized by the production of fibrinous exudation. The stroma of the mucous membrane is filled with more or less disintegrated leucocytes, pus, and fibrin, which also appear on its free surface. There is coagulation necrosis of the epithelium, which is shrivelled and distorted in form, with indistinct nuclei or none at all. The false or pseudo-membrane is composed of flaky necrosed epithelium, disintegrated

leucocytes, pus, fibrin, bacilli in varying relative amounts, and sometimes red blood corpuscles. The mucous membrane beneath is more or less necrotic, and the sub-mucous layer is necrotic in bad cases.

"There is hyperæmia and often tumefaction of the surrounding mucous membrane which secretes a muco-purulent secretion. The redness of the surrounding area is often distinctly localized."[1] On the same page he remarks: "Several successive membranes may form on the same site. This is particularly the case when they have been forcibly stripped off."

The restoration of the epithelial covering of the mucous membrane takes place, of course, from the epithelial cells surrounding the ulcerated area or from those not destroyed by the diphtheritic process.

Lesions of the mucous membrane undoubtedly aid in the spread of the virus, and hence the injurious effects of forcibly stripping off the false membrane and exposing the raw, bleeding surface.[2]

The majority of the profession believe that diphtheria is a germ disease, and that the Klebs-Löffler bacillus is probably the cause of it. The experiments carried on by various bacteriologists confirm this belief, but they are not as yet numerous enough to enable us to say that it is so beyond doubt.

The portion of the profession who are still in doubt as to the etiology of the disease, forms a very strong part of it. Ptomaïnes have been isolated from the false membrane and from cultures which show marked poisonous effects, and some claim for them the ability to establish immunity to diphtheria.

But whatever our belief may be as to the nature and etiology of diphtheria, we all recognize it as an infectious and contagious disease whose effects on the system are very marked, whether primary or secondary, and that in its local manifestations it is very virulent and prone to establish itself wherever the tissues are devoid of epithelium.

That we see many die from its invasion of the larynx with but slight systemic manifestations, and many again die from its systemic effects with but few local manifestations.

In considering the local effects of mechanical violence to the throat, we will do well to have in mind the following facts:

1. That we probably have in the throat pathogenic germs ready to invade every area laid bare of epithelium.

2. The poisonous ptomaïnes are more readily absorbed by a raw and bleeding surface than by one covered by epithelium.

3. That a portion of the involved tissue is already necrotic, another portion nearly so, and the area surrounding those portions is acutely inflamed.

4. That it is impossible to render by any means known to us a diphtheritic throat antiseptic.

A glance at the above statements will, I think, show good reasons to anyone why all violence to the throat should be avoided in treating diphtheria, for I heartily believe that the natural process of separation of the sloughs from the throat is the best and most conservative way.

To make it clear: Take a case in which we have a membrane which looks loose and seems easily removed, and attempt to take it away with a swab, and if you succeed you will in many instances do so at the expense of bruising the tissues, scraping off the epithelium, and will leave behind you a surface ready to be infected again; or if you do it to make an application of your favorite remedy, I ask you what remedy applied with a swab can reach into each recess of the throat, penetrate a mass of pus and mucus and then kill all the germs to be found there? No remedy will do it, for germs enveloped in mucus, or sunk deep behind the tonsils, or down in a membrane, will laugh at your efforts to destroy them. Of a certainty you kill a few, but not enough to compensate for the damage your swab has done.

Many times applications are made as thoroughly as can be to the throat with powerful germicides, which in a test tube are sufficient to destroy the life of the germ, but in the throat your swab is quickly enveloped in mucus, and you only succeed in irritating the throat, giving great pain to your patient, causing him to vomit and to sink back in bed in every way worse for the interference.

If a surgeon wishes to cauterize a chancroid, does he not carefully wipe it dry, expose each little fold so that he may reach every part? Even then he will fail at times with the most powerful caustics. What effect would he expect if he left it covered with pus and mucus, and simply drew his swab across it? None, surely. What good reason then can be given for picking up a poor child every hour, forcibly opening its mouth, causing the glands at the angle of the jaw to be compressed, pressing into its throat a swab laden with a germicide, and wiping it about, withdrawing it covered with mucus, pus, and perhaps a little membrane, and leaving the throat raw and bleeding. Your child has struggled violently, suffered much, and vomited that little nourishment which would have sustained its strength and enabled the system to resist the ulcerative process in the throat. This is done hourly, day and night, and the little patient gets weaker and weaker, and the diphtheria spreads rapidly, and what wonder is there when we think of its struggles, its vomiting, and the pain and suffering caused by the application. We all know full well that empty lymph-channels will absorb poison more readily than full ones, and can we wonder that a child made to vomit eight or ten times a day has hungry lymph-channels and little resistance to offer to the inroads of the disease?

The rational side of this question is often overshadowed by the desire to destroy a bit of membrane and a few germs. No one appreciates the work done by the bacteriologists more than I do, but believing that by the means at our disposal we are unable to destroy the bacteria, I object strongly to violence being done to the throat with that end in view. Give the system but a chance to fight, and nourish it by every means known to you, and many cases which are now fatal will be saved, and many cases of a mild character will speedily get well, instead of being aggravated into virulent cases by our mistaken and inefficient efforts at a cure.

If we have to deal with threatened gangrene in a flap after amputation for crushed wound, we do not every hour or half hour squeeze it and apply all sorts of drugs to it, but rather we handle it gently, disturb it little, and do as little violence to it as possible. In the throat we have tissues threatened with gangrene, and are we justified in using a swab on them every hour or half hour and inflaming them past recovery in the hopeless task of killing all the germs.

Time and again have I been able to convince myself of damage done by this swabbing of the throat, and have seen surfaces which had been left raw and bleeding covered in the course of an hour or so with membrane. Then, too, I believe that the swab often carries to parts not infected shreds of membrane and infects them. When one depresses the tongue in a case of diphtheria and sees at its base the epiglottis red and swollen, and then puts in the swab and wipes it across the membrane, and, no doubt, touches the epiglottis with the infected swab, he can well have doubts as to the harmlessness of the swab.

In dealing with a case of septicæmia from any cause how careful we are to conserve the energy of the patient, to improve his nourishment, and to disturb him as little as possible; and rightly so too; but in these cases I have often seen a wanton waste of the vitality of a little child by efforts to cleanse the throat. If these efforts could in the nature of things be effective I would not complain, but I do not think they can, as a rule, be so; so I take a stand against any violence being done to the throat in

[1] American Text-Book of the Theory and Practice of Medicine, vol. i., p. 379.
[2] Loc. cit., p. 380.

diphtheria. No matter if it is to establish a diagnosis, make an application, or remove membrane, except when hanging loose.

W. Gilman Thompson says "that it takes the best judgment of the physician to avoid the danger of exhausting the patient's strength by too energetic local treatment, and the even greater dangers of sepsis and occlusion of the air-passages by rapidly extending false membrane." Too much thought cannot be given to the first part of this quotation, for while we all insist that we do everything possible to preserve the strength of the patient, we do many things inconsistent with the preservation of the same.

Many physicians never use the swab at all, and I believe that the majority do not, still, my dealings with brother practitioners show me that many use it at times and others as a routine practice. A little over a year ago, in consultation with a professional man, I was persuaded upon in a moderately severe case of diphtheria to use a saturated solution of sodium bicarbonate every hour, only to see the membrane spread rapidly under its use and to see the child die—I cannot say from the effects of the swabbing, but certainly the end was hastened by it.

Another case where iodoform and boric acid were used after cleansing (?) the throat well with a swab, the result was that in eight hours the throat was completely covered with false membrane and the child died. And family and doctors struck up the old chorus, "Everything possible was done."

I appreciate as much as anyone the need of disinfecting or cleansing the throat, but I think it can better be done with an atomizer throwing a coarse spray of mild disinfectant to flush out the throat. And I am strongly convinced that hourly or half hourly applications do more harm than good, except in cases where a child is old enough to take the treatment without any resistance. If they resist, every two hours is frequent enough in the day, and two and a half or three at night.

In the nose I use a mild antiseptic and flush it out well with a douche pot and rubber catheter, doing it thoroughly and then giving the child a chance to catch its breath before I go germ-hunting again.

The effect on the minds of the friends of your little patient when they see you make a local application to the throat is very marked, and when they see you remove a piece of membrane from the throat they are apt to be overjoyed, just as if the membrane were merely a foreign body; but do not let their clamor for something to be done to "cut away" the membrane make you forget the lesson which scientific pathology has taught you in regard to the ability of the remaining germs to infect any area laid bare by violence. I think that many are led to adopt this violent method of treatment as a result of an ofttime repeated and strongly stated desire for active treatment. But we should be above all such influences.

Much might be said of the harmful effects of the action of strong caustics or disinfectants on the throat and nose, but that would prolong my paper beyond its intended limits.

Many authorities might be cited on both sides of this question, but I do not deem it needful in such a paper as this to lumber it up with references from all sources.

If I have rendered clear my position in regard to the harmfulness of the swab and undue activity in treating diphtheria, of the effect of harrowing the throat and laying bare a fertile soil for the propagation of germs and the extension of false membrane, of the exhausting effects on the constitution of the oft-repeated disturbance which results from making local applications, and of the crying need of preserving the strength of the patient, I am content.

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It Is Stated in a German paper that more than twice as many people died in London this winter from influenza as died in the same city in 1843 from cholera.

LOOKOUT MOUNTAIN, TENNESSEE, AS A HEALTH-RESORT.

By W. A. DEITRICH, M.D.,

LOOKOUT MOUNTAIN, TENN.

During the spring of 1888, while practising my profession in northern Indiana, it was my misfortune to contract pulmonary tuberculosis, for which I consulted the late Dr. Joseph P. Ross, of Chicago, and through his advice I sought a residence on Lookout Mountain. A full description of my case was published in the *Journal of the American Medical Association*, of August 16, 1890, but suffice it to say that I have entirely recovered my health.

Lookout Mountain has been known in history ever since Hooker fought his famous "Battle above the Clouds," but farther than this scarcely anything has ever been said of it, and little is known of it as a health-resort by our northern brethren. The mountain rises abruptly from the Tennessee River, until it attains a height of seventeen hundred feet above the river, and two thousand two hundred and eighty feet above sea-level. Lookout stands alone in its majestic beauty, being separated from all other mountain ranges by a wide and fertile valley. The top, or plateau, is an undulating surface, beginning with a point at its northern extremity and gradually widening out as it runs southward, until it reaches a width of a mile or more. It extends across the line into Georgia, but it is only of that portion of the mountain lying within the borders of Tennessee that I shall speak, as it is the only part that is of easy access. The greater part of this plateau comes to an abrupt end where the rock seems to have broken off precipitately and left a perpendicular bluff several hundred feet high. The soil is light and sandy, absorbing moisture so rapidly that within a few hours after a rain a person can go out walking without fear of getting damp feet. A large part of this plateau was cultivated previous to our civil war, but since then it has grown up in primitive forests of pine and oak, with the former predominating.

It is impossible to give a pen picture of this grand old mountain by which any effort of the imagination can form an idea as to its beauty and grandeur. To say the view from its top is grand would not express it. It is not only grand, magnificent, sublime, but also very entrancing. The scenery is varied from every point of observation, and to the lover of nature are presented views of which he will never weary; and this of itself will urge invalids on to keep out of doors and ramble from place to place. From its lofty summit seven different States can be seen, and with the city of Chattanooga lying at its base, with its fifty thousand souls, and ten different trunk railroads centring there, it produces a scene not to be found elsewhere. Its beauty can only be appreciated by the eye of the beholder.

Unfortunately, the meteorological records (except its temperature) have never been taken until within the last year, but comparing what we have with the observations taken in the city of Chattanooga, we can form a fairly good estimate. The mean annual temperature is 54° F., with a mean annual range of 17° F. During the winter the temperature seldom falls below freezing, and only once during the past five years has it fallen down as low as 2° F., and that last winter, while only fifty miles north of us it registered 12° F. below zero. During the summer the temperature has only risen above 88° F. five times, and that occurred the past summer. The snowfall has been almost *nil*, with the exception of once last winter, when there was a fall of about nine inches. The average number of clear and fair days during the entire year is twenty-four in each month. It is impossible to give the rainfall, as no exact data have been kept of it. The average relative humidity can only be estimated from that of Chattanooga. The United States weather observer there says it is at least five less than that of the city, and as it is 71 in Chattanooga that of the mountain must be 66 or less. The air is relieved of a great deal

of its moisture as it is wafted across the mountain-ranges surrounding Lookout on all sides, thus giving us a dry atmosphere. It is free from all micro-organisms and impurities, as there is nothing here to contaminate it. Sunshine is abundant, and gentle breezes are always blowing; sultry days and wind-storms are unknown. The air is invigorating, it having neither the debilitating heat of the Southern clime nor the severe storms and cold of the Northern to affect us.

Dr. Wight, after a thorough investigation, states that consumption has never been known to occur among the natives of the mountain. Malaria seldom if ever occurs, at least I have never seen an original case of malaria or consumption during my five years' residence here; but, on the contrary, I have carefully watched the progress of a great many consumptives who came to Lookout with the hope of improving their health, and if possible receive a cure. With very few exceptions, everyone who sought a residence here was either benefited or cured. The most of those who received no relief were so far advanced with their disease that it was utterly impossible for them to be benefited anywhere. Those of an acute character naturally found the quickest relief, while those with the so-called fibroid phthisis improved slowly; but with proper care, diet, and exercise, everyone (unless too far advanced) would find almost immediate relief, and if they remained long enough a cure would result in the great majority of cases. Consumptives, after visiting some of the other health-resorts, such as California, Colorado, Texas, and Florida, and receiving no benefit, have come to grand old Lookout, and their improvement soon became apparent. I recall, for instance, the case of a young gentleman, a professional brother, with phthisis, who had spent some time in Colorado and New Mexico seeking relief, but failing to find it he returned home, as he thought, to die. While at home he was advised by Dr. Ross to try this place. He did so, arriving here about January, 1889, and remaining until the following August, when he again returned home to all outward appearances a healthy man, but still having a slight induration in the lung. He then went to California to practise his profession, but after residing there a year or two his trouble had increased so far that he died. I could cite numerous other cases like this, some that remained long enough to receive a complete cure, others, after receiving a partial cure, would return home thinking they could not remain away from business any longer. The one great trouble with consumptives going to a health-resort is that they will not remain long enough; as soon as they are on the fair road to recovery they become anxious to return to their families, friends, and business. When invalids are sent away from home and relatives to seek a new climate, they should be instructed to remain (providing they improve) until their attending physician says their health is entirely restored.

Other diseases that are benefited by a residence on Lookout are insomnia, nervous prostration, asthma, bronchitis, and the enteritis of infants. Children are frequently brought to the mountain during the summer months with cholera infantum, so sick that the physicians say they could not possibly live more than a day or two in the city; yet, as if by magic, they commence to improve almost immediately after reaching its summit, and that with very little medicine. Only a few weeks ago Dr. Bowen, of Paris, Ky., brought his baby suffering with enteritis to the mountain, carrying it on a pillow, and not thinking that it could possibly live. The child soon began to brighten up and feel better, and a few days ago they left the mountain with a healthy baby, and feeling very enthusiastic on the climate of this place.

Lookout Mountain is accessible by rail from every point of the compass. It has an incline and standard gauge railway connecting it with Chattanooga, thus giving quick and easy access to that thriving city. Dr. J. A. Robison, of Chicago, says: The ideal requirement for the treatment of consumptives is a combination of all the requisites of a perfect climate, and also the opportunity to enjoy city life with its attendant evidences of civilization. He further says the only locality where there is a possibility of such a combination is Lookout Mountain, Tennessee.

It is an all-the-year climatic resort, and has the advantage over other resorts in being within easy reach of all Northern and Eastern cities. The water-supply is abundant and as pure as can be found, consisting entirely of mountain spring water, either freestone or chalybeate.

The facilities for entertaining invalids and tourists were very limited until a syndicate of New Englanders purchased Lookout Inn and opened it for the winter as well as summer. The inn is a magnificent structure, three hundred and sixty-five feet long, with wide verandas running around on three sides, the southern one being enclosed in glass. The rooms are large and commodious, well ventilated, and every one is an outside room. They are either heated by open fireplaces or steam. Especial care has been observed in putting the building in the best sanitary condition possible. Its cuisine is such as will tempt the appetite of the most fastidious.

Progress of Medical Science.

Bacterial Poisons.—No subject at the present day can be more interesting, and yet but little is known respecting bacterial poisons. The work of Gamaleia ("Bacterial Poisons," Detroit, 1893. American Edition, translated by E. P. Hurd, M.D.), despite its literary merit and the great array of facts, is a little disappointing, and one really wonders on reading this book that so much could be written, and so little information given. The first experiments of Seybert, Gaspard Stich, Magendie, Dupuis and others established the symptoms and lesions of experimental septicæmia. Panum showed that it is produced by a chemical poison: Bergmann and Schmiedeberg determine this poison to be an alkaloid sepsine. This result marks a first stage in the investigation. Down to about 1870 Panum's views were almost universally prevalent. Bergmann's sulphate of sepsine, obtained in crystalline form from putrid infusions, was believed to be the veritable putrid poison that causes septicæmia, and the action of microbes was ignored. Sepsine was thought to be a ferment, acting in infinitesimal quantity. It was, however, soon found to be impossible to ascribe all the forms and symptoms of septic poisoning to sepsine alone, and that the poisons produced by putrefaction were many and various, according to certain conditions; and there was for many years a contest between the chemical and the vitalist doctrines, ending in the victory of the latter. Liebig's hypothesis that the soluble ferments are albuminoid matters in process of decomposition, was overthrown by Pasteur, who demonstrated that fermentation and decomposition do not exist apart from the life of organized ferments. Moreover, the contagionists were soon able to prove the fallacy of the chemical doctrine by showing that certain microbes separated from their morbid products were able to produce determinate diseases. At the same time was established the fundamental notion, proclaimed by Cohn, of the specificity of bacteria, and bacteriology took its place among the sciences. The vitalist doctrine was not, however, in absolute contradiction to the chemical; and Panum has the merit of having understood the possibility of reconciling the two theories. He affirmed, that "it is incontestible that the putrid poison is chemical, but that it might be produced by a microbe, even a determined microbe. In diseases, both the pathogenic microbe and the production of the poison by the microbe, may play their respective parts." These words, uttered in the infancy of bacteriology, have been shown to contain a profound truth. The discovery of ptomaïnes by Selmi, Brieger, Gautier and others marks the next stage in progress. These discoveries date from about 1870. The list of cadaveric alkaloids naturally resulting from putrefaction of albuminoids was soon quite large; and the query was soon raised whether it might

not be dangerous to eat flesh, or even fish, and other animal products, for fear of ptomaïne poisoning. At least, invalids with weak digestive functions were warned of the danger. Later on, a careful criticism of the work of Gautier, Nencki, Brieger and others justified looking with suspicion on their different methods of extraction of ptomaïnes. There is even warrant for believing, as Gamaleia shows, that these methods were likely to create artificial products which did not pre-exist in the albuminoids analyzed. A part of the work of these experimenters will still stand; but the spontaneous formation of ptomaïnes is not so constant a phenomenon as was taught, and the microbial poisons are not ptomaïnes. As for the typhotoxine of Brieger, Bassi has shown that it does not pre-exist in the cultures of the typhoid bacillus; and Salkowski has never been able to find the peptotoxine of Brieger in the products of gastric digestion; in fact, Bouveret and Devic have proved this supposed ptomaïne to be "an artificial product which is formed at the expense of albuminoid matters by the combined action of HCl and alcohol." Roux and Yersin, as a result of their experiments on the poison of diphtheria, conclude that by all its reactions the diphtheritic poison resembles diastases, and none the less by its intense activity in infinitesimal doses. Gamaleia, after a somewhat exhaustive examination of the whole subject, and with the help of researches of his own, concludes, "that the toxic action of the bacteria is not linked to their fermentative action; it does not coincide with any known diastasic action." The microbial poisons have been supposed to be "secretions;" nevertheless, this comparison with secretions accounts but superficially for the facts. "First, there are certain pathogenic bacteria which produce such diseases as tuberculosis, cholera, and charbon, where we do not find any toxic secretions. Then, again, even the production of poisons in diphtheria and tetanus has a very superficial correspondence to a secretion. In fact, the quantity of these poisons in the culture liquids does not grow proportionately to the development of the bacteria themselves. On the contrary, an attentive observation reveals the following facts: At the very first, and at the most active moment of the life of the microbes, the liquid of culture is acid, and devoid of all toxic power. Later, when the bacteria have ceased to multiply and are deposited at the bottom of the culture flask, the liquid becomes alkaline and very highly toxic. Its toxicity augments progressively with the duration of the sojourn of the bacteria in their alkaline liquid of culture." The explanation of this fact he finds very simple: "The poison is contained inside the bodies of the bacteria, and is extracted slowly by the alkaline liquid in which they are macerated."

We have not time to pursue the subject further, and must refer those interested in the subject to the treatise itself. In short, Gamaleia believes that the microbian poisons "are the results of the creative syntheses of the bacteria, and come from their bodies. "Thus is again confirmed our hypotheses respecting their chemical nature, which identifies them with the constituent parts of the nuclei of cells—the vitellines and nucleines. The toxicity of the microbian bodies may have also a teleological signification explicable from the point of view of the struggle for existence and of natural selection; for the toxicity of the bodies of bacteria may be useful to them as a means of preserving them against aggressors which would devour them."—*Boston Medical and Surgical Journal.*

A New Physical Sign for the Early Diagnosis of Croupous Pneumonia.—Dr. F. H. Morison, writing in *The Lancet*, refers to the difficulty of the early diagnosis of pneumonia in children, and quotes Dr. Francis Moinet, in "Keating's Cyclopædia of Diseases of Children," who says: "In not a few cases no satisfactory results are obtained by auscultation and percussion until a comparatively late period, owing to the limited extent of the affected region and its position in the centre of a lobe surrounded by healthy lung tissue." In several cases recently seen, where the general symptoms of pneumonia were present but none of the ordinary physical signs, Dr. Morison adds, "I have discovered what I am venturing to describe as a new physical sign. On careful auscultation of the chest I have heard jerky expiration over a limited area, and on noting the position of this area have found developed in it subsequently the usual signs of pneumonia. This jerky expiration is the first physical sign developed, and can be heard soon, if not immediately after, the rigor, before dulness or crepitations appear. It is much more distinct in children, but I have also heard it in adults."

The Treatment of Tic-Douloureux.—Dr. Jarre read a paper before the Académie de Médecine de Paris on September 5th on the subject of tic-douloureux, in which he attempted to establish on a definite basis not only the pathology and mechanism of production of this painful affection but also the treatment, and he detailed the lines which he had adopted. He maintained that cicatricial lesions of the nerve were the cause of a large majority of the cases, and that the treatment consisted in attempting to remove the cicatrices. As a rule these lesions were situated in the alveolar region at the terminal extremities of the nerves. The most common causes of the cicatrices were chronic alveolar-dental inflammation and conditions brought about by the faulty development of the lower wisdom teeth. The treatment indicated in such cases is to remove a portion of the alveolus, together with the cicatrix which it encloses. The operation is best performed in three stages: firstly, the mucous membrane and periosteum covering the portion of the alveolus which is to be resected are turned aside; secondly, the piece of bone is removed; thirdly, the surface of bone exposed is well scraped. The wound is then washed out and dressed with a pad of cotton-wool soaked in an antiseptic solution. The immediate results of the operation in Dr. Jarre's patients were at first a diminution in the number of attacks of pain, and finally, in four or five days, a total cessation of the symptoms. Ten cases, in which all other methods of treatment had been previously tried without success, completely recovered after this operation.

The Extra-uterine Fœtus.—The generally accepted statement that the fœtus whose evolution has taken place under the perilous conditions of an ectopic gestation is usually deformed, and would therefore be a potentially undesirable member of the community, is combated with characteristic energy by Mr. Lawson Tait, who, on their behalf, denies the soft impeachment. It is not merely a question of the personal dignity of these adventurous fœtuses, nor does Mr. Tait hold a brief to assert against all comers their right to even a deformed existence. If such a statement as this is once allowed to obtain credence, the moral scruples which some surgeons feel in treating the fœtal existence as a *quantité négligeable* are apt to be sacrificed to the interests of the mother, these being often apparently opposed to those of her offspring. Hitherto it has been gratuitously assumed that the conflicting interests are irreconcilable, and cases of ectopic gestation which have progressed beyond the sixth month have been allowed to go on until the death of the ill-fated fœtus has encouraged the surgeon to operate in the hope that the danger of placental hemorrhage will have been minimized, if not abolished, by the subsequent devascularization of the placental mass. Apart from the fact that such delay is tantamount to condemning the fœtus unheard, there is reason to believe that the supposed advantages to the mother of the delay are largely and erroneously hypothetical. It seems, in fact, that the interests of mother and child alike are best served by postponing operative interference until the latter has attained a viable age, and then cautiously removing it, and with it, if possible, the placenta. We are pleased to rehabilitate the maligned fœtus and to vindicate its right to "a place in the sunshine," leaving the question of the removal of the placenta to be decided by subsequent experience. It must

not be forgotten that the most fatal complication of operations for the relief of extra-uterine gestation is hemorrhage, septic mischief—which constitutes the most cogent argument against leaving the placenta to come away piecemeal—being vastly less dangerous both in its incidence and its mortality.—*Medical Press.*

Recovery after Swallowing a Teaspoonful of Amyl Nitrite.—Dr. G. E. Shoemaker, of Philadelphia, reports this case in the *Medical News*. He was hastily summoned to see a man, sixty years of age, of robust physique, who had by mistake taken a teaspoonful of undiluted amyl nitrite. About three minutes after the drug was taken the doctor found the man sitting in a chair, with a moderately flushed face, a pulse of 112, and complaining only of a little headache. Being of a sluggish temperament, the patient did not appear to realize the gravity of the situation, and received philosophically the treatment instantly instituted. He was successively given several glasses of warm water; a hypodermatic injection of one-eighth of a grain of apomorphine; mustard in warm water; zinc sulphate in warm water; another one-eighth of a grain of apomorphine; more mustard and warm water; so that just seven minutes after he took the drug copious vomiting of a very hearty unmasticated meal occurred. The evacuated matter emitted a strong odor of amyl nitrite. Vomiting was very copious indeed, the quantity of food, evidently just eaten, being enormous. Digitalis and brandy were now injected beneath the skin; and the patient was put to bed and surrounded by hot bottles. His face was moderately blue; the extremities cold; respiration shallow, but regular; the pulse weak, but only 68 to the minute, five beats being dropped in that time. Strychnine sulphate in doses of one-thirtieth of a grain was frequently repeated; digitalis and brandy were continued, and external heat was maintained. Two hours later the pulse had ceased to intermit, and the patient was even jocular, though weak. The next day nothing abnormal could be detected in his condition. Consciousness was not lost at any time, though the man seemed drowsy and stupid. There were no twitchings or convulsions, no irregularity of respiration. The man was constantly watched and every symptom carefully noted as to time, a record of pulse being taken every five minutes, but no symptoms developed beyond those narrated. To avoid alarming the patient and arousing his suspicions, which seemed to be marvellously few, no effort was made to learn subjective symptoms. Recovery was due to the fact that the patient's absorptive powers were sluggish. He no doubt had a dilated stomach which he had just filled with food. The promptness with which it was possible to empty the stomach and administer stimulants no doubt also helped in the fortunate outcome. An examination of some leading works on therapeutics gives the reader little help as to the proper treatment of poisoning by amyl nitrite. Digitalis and strychnine were pushed in this case because the heart was failing.

Dentition Fever and Its Treatment.—Dr. Müller says that posterity will look with wonder upon the difference of opinion now existing whether there is really a fever depending upon dentition alone. He believes, and bases his belief upon many observations, that certain cases of ephemeral fever occur in children where the most scientific examination fails to show any lesion except eruptive teeth, and the fever rapidly disappears upon lancing the gums. He advises the following manner of performing gum lancing: An assistant fixes the shoulders and legs of the child, while a second fixes the head. The index-finger of the left hand is pushed between the jaws, and the tongue pushed somewhat aside. Then with a scalpel laid flat on the tooth he cuts off the little cap surmounting the point of the tooth (this can be easily discovered by the paler character of the gum in this position), or he makes parallel or cross cuts over the top of the tooth, thus excising a small portion of the gum. If the scarification is done in this manner the point of the tooth will remain free, and a scar will not form over it. The mother is directed to wash the scarified surface several times daily with a soft cloth wet in carbolic acid solution, to prevent infection and prevent the healing of the cut. The amount of blood lost is insignificant. This little operation will always relieve the child when the diagnosis is correct. It is not to be done, however, unless the physician is certain that no other cause for the fever exists.—*University Medical Magazine.*

True and False Angina Pectoris.—Dr. Huchard gives the following table of differential diagnosis between true angina and hysterical pseudo-angina:

True Angina.	*Hysterical Pseudo-Angina.*
Most common between forty and fifty years.	At every age, even six years.
Most common in men. Attacks brought on by exertion.	Most common in women. Attacks spontaneous.
Attacks rarely periodical or nocturnal.	Often periodical and nocturnal.
Not associated with other symptoms.	Associated with nervous symptoms
Vaso-motor form rare. Agonizing pain, and sensation of compression by a vice.	Vaso-motor form common. Pain less severe. Sensation of distention
Pain generally short duration; attitude: silence; immobility.	Pain lasts one or two hours; agitation and activity.
Lesion: Sclerosis of coronary artery.	Neuralgia of nerves.
Prognosis: Grave, often fatal.	Never fatal.

Huchard also discusses the prognosis of angina: Sudden death may occur during the course, or at the end of a painful paroxysm, or, by sudden syncope unattended by pain. Anginal patients are very liable to syncope; the patient falls as if struck by lightning. In other cases death is not so sudden, but rapid, and may be attended with symptoms of asphyxia instead of syncope. In other cases the disease may be terminated by intercurrent affections. The predisposing causes of sudden arrest of the heart in angina are probably lesions of the cardiac ganglia and local ischæmia of the myocardium; the exciting causes are spasmodic contraction or thrombosis of the coronary arteries. The author gives iodide of potash for three or four years in doses of forty-five to sixty grains daily, taking care to suspend it for eight or ten days each month. In rheumatic cases sodium salicylate, rest, even temperature, and dietetic care are always important. The inhalation of nitrite of amyl (this drug relaxes the peripheral arterioles, lowers the blood pressure, and relieves the heart). Nitro-glycerine and hypodermic injection of morphia are also useful for the same purpose, and act much in the same way. Hot applications to the chest, faradization of the cardiac region, with internal administration of diffusible stimulants, belladonna, and small doses of opium have been recommended.—*Hospital Gazette.*

Gastro-Intestinal Exhaustion.—Among the many cases of gastro-intestinal disturbances which occur in warm weather, a certain number may be fairly considered as a class by themselves, due not to poisoning or errors in diet, but best described as cases of gastro-intestinal prostration. The clinical picture is fairly definite. The onset is slow, as a rule; indeed the patient is often unable to give a more accurate date of the beginning of his trouble than "the first of warm weather." There is no history of errors in diet or exposure to cold—as there is no sudden onset of acute symptoms. A general mild anorexia for a day or two, slight irregularity in the action of the bowels, and a little distress after taking of food, have hardly attracted any attention; but the continuance and gradual increase of a mild diarrhœal tendency are the first symptoms heeded. The diarrhœa is unaccompanied by pain, though often attended with flatus. Diet when at all rational has but slight connection with the diarrhœa. The whole picture of the case when carefully noted is quite distinct from that of acute or subacute gastritis, due to irritant ingesta. There is no fever or vomiting, though there may be slight nausea. The chief complaints of the patient are of the annoyance of

the diarrhœa, and of a sense of weakness. The ordinary treatment of a gastro-intestinal catarrh is usually given with a gradual improvement of the patient toward fall. The noticeably good effect of a few cool days on the patient points to the rational explanation of the condition, the greater or less exhaustion of the nervous centres controlling the alimentary tract. The effect of heat upon the human system varies so much in different persons that it is not easy to trace the exact course of its workings. Some people are always "better" in summer; they like hot days, and with such people cases of gastro-intestinal exhaustion are not found. It is the person whose nervous system is below par, or easily exhausted by heat, who is troubled by this atony of all alimentary processes. Indeed, the digestion suffers only as a result of marked nervous exhaustion, affecting chiefly the great ganglionic centres of the sympathetic system. With this theory of the cause of the patient's trouble the indications for treatment are seen to be quite different from those of an enteritis. The diet should, of course, be light and simple, but it should be abundant. The patient should be kept quiet, fed often and regularly, with varied but easily digested foods. Removal from a heated, noisy city to cool localities is of the greatest importance, and care should be taken to avoid overheating or exposure to the sun. The nervous system should be given all the rest possible, as in cases of general nervous exhaustion. Medicinal treatment should be not by cathartics and antiseptics for supposed ptomaïnes, but by thorough administration of nervous tonics and stimulants. —*Boston Medical and Surgical Journal.*

Infection Icterus.—The St. Petersburg correspondent of the *Medical Press* writes that Dr. Hœppener has described a sort of *Infection Icterus* resembling typhoid in its clinical appearance. The phenomena are ushered in with pain in the head and limbs, the temperature gradually rising till it reaches 102° to 103° F., which continues five to eight days. On the fourth or fifth day icterus appears, the spleen is enlarged and the margin of the liver is prominent and painful, the tongue white, and the urine contains albumin from the beginning but becomes dark on the fourth day, although the fæces are normal and sometimes colorless. The course of the disease ranges from between two and three weeks, and usually terminates in recovery. There are two cases, however, on record, where death occurred, the post-mortem revealing great reddening and swelling of the solitary follicles. He had one of fatal ending that lasted four weeks, the fever continuing only five days however, after which followed somnolence, sopor, and death. Urticaria and blood extravasation appeared under the skin. The autopsy showed the usual swelling for solitary follicles, with some of them ulcerated and broken down, infarcts were also present in the kidneys, the liver greatly enlarged, with an intense yellow color, and the gall fluid inspissated.

Strychnine During Pregnancy as an Aid to Labor.—Dr. Duff, at a recent meeting of the Pittsburgh South Side Medical Society, made some remarks in regard to the subject of tardy labor. The discussion prompted him to speak of a remedy he had administered when occasion offered during the past few months. In speaking of it, he stated that his observations had not been sufficiently numerous to justify him in giving a positive opinion. Nevertheless, whether by accident or otherwise, his results, so far in the majority of cases, had been most gratifying. He referred to the administration of strychnine as a remedy preparatory to labor where there is general debility and want of muscular tone; in women who previously have had tardy labors from irregular and feeble uterine contractions and from want of tone in the auxiliary abdominal muscles; in women who have a history of post-partum hemorrhage, and of want of retraction and contraction of the uterus subsequent to delivery; in those who are subject to severe after-pains necessary for the expulsion of clots in the uterus. In all such cases a treatment should be instituted of $\frac{1}{60}$ gr. of strychnine three times a day, beginning from six weeks to two months prior to the anticipated time of delivery, and kept up until a week or ten days before delivery, when, if it is well borne, it may be increased, according to the judgment of the attendant, to $\frac{1}{40}$ gr. or $\frac{1}{30}$ gr., and in some cases to $\frac{1}{16}$ gr. The cases in which he has administered it, for the most part, were those with which he had had experience of tardy labors, post-partum hemorrhage, and severe after-pains. In nearly all of them the improvement over past experiences was so great that the patients themselves were cognizant of it and expressed gratification.—*Therapeutic Gazette.*

Bromoform in Whooping-Cough.—Dr. F. W. Burton-Fanning says that Stepp reported, in 1889, one hundred cases of whooping-cough treated with bromoform without a single failure, and his results were indorsed by other physicians. Dr. Burton-Fanning also reports thirty cases of his own treated with this drug. Bromoform is a colorless, oily liquid with an ethereal odor and sweet taste, insoluble in water. He suspends the bromoform in a mixture, as follows:

Bromoform	℥ j.
Pulv. tragacanth co.	ʒ ss.
Syr. simpl.	ʒ ss.
Aq.	ad ℥ ss.

For children under one year he gives half a minim, up to three years, one minim, up to six years, two minims three times a day to begin with, then, if necessary, these doses may, with safety, be gradually increased until they are doubled. It is important to have a fresh supply once a week, to keep the bottle in the dark, and shake it before taking the contents. Bromoform should never be used when it is of a brown color, as this is due to its decomposition and the liberation of free bromide. He considers bromoform of specific power against the paroxysmal cough, on which the chief dangers of whooping-cough depend. The number of paroxysms with this treatment are much fewer, shorter, and less violent, and the vomiting always ceases, but the duration of the disease is not materially shortened. If the bromoform be discontinued within four weeks, the characteristic cough and attendant miseries return at once. He also finds that this remedy is so specific in its action as to be of great use in diagnosis. In doubtful cases its success or failure to relieve the cough led him to a correct conclusion as to the nature of the disease, as subsequently established by other considerations.—*Boston Medical and Surgical Journal.*

Ichthyol Suppositories in Prostatitis.—Dr. Freudenberg recommends ichthyol suppositories in this affection. He has used them in from thirty to forty cases during the past two years, and only in two did they fail to give relief. The cases were mostly subacute or chronic. Any necessary treatment of the urethra was carried out at the same time. The suppository consists of 0.5 gr., increased up to 0.75 of ichthyol to 2.0 to 2.5 cacoa butter. If any irritative symptoms appeared—and this may happen with any suppositories—smaller quantities of ichthyol were employed. Two, and sometimes three, suppositories were used in the day. The author refers to other cases in which ichthyol has been tried, and more especially to Scharff's forty cases, but here the prostatitis was acute and mostly gonorrhœal in origin, and a ten per cent. solution was injected into the rectum.

Prevention of Cocaine Intoxication.—Dr. Parker (*British Medical Journal*) has discovered that the unpleasant, and even poisonous, symptoms that occasionally follow the local application of strong solutions of cocaine in the nasal and buccal cavities may be entirely prevented by combining the drug with resorcin. This combination has the further advantage of adding the antiseptic, astringent, and hæmostatic properties of the latter drug to the effects of the cocaine.

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THE PHYSICIAN AND HARD TIMES.

THERE has been a very general complaint among physicians as well as the laity that "business" has been poor. The doctor, however, is usually rather shy about complaining, for he gets very little sympathy over his hard times. To the layman this simply means that the community is healthier and consequently happier. The presence of doctors and a police are two signs of a badly ordered government, according to Plato.

We have not heard, however, that dispensary work has fallen off, and it may be that when doctors have hard times it is chiefly due to the fact that their patients when ill do not call for medical service, or if they do, fail to pay their bills.

On the other hand it is quite possible that another factor is at work, and one which will in time become a most important one. We refer to a decrease in sickness on account of the prevention of disease through the observation of the rules of hygiene. For years now the people have been instructed day in and out regarding the best methods of preserving their health, preventing infection, and prolonging their lives. Boards of health have multiplied and are becoming every year more powerful and efficient. Small-pox, which made the fortunes of eighteenth century physicians, is no longer a source of income, nor is typhus, or cholera, or yellow fever. Phthisis now is not kept under care in cities or at homes so much as formerly. The patients who can afford to pay a physician are promptly sent away, as a rule.

With other zymotic diseases the results of sanitation have not been apparently so brilliant. Comparative tables for this city are not strictly accurate, since the classification was changed in 1889. The following, however, may be of some interest. It shows the deaths in this city about twenty and again about ten years ago, as well as at the present time.

	1875.	1884.	1892.
Total deaths	30,709	35,044	44,329
Zymotic diseases	10,968	9,263	9,282
Constitutional	6,090	7,941	7,443
Local	10,760	14,246	21,585
Developmental	1,704	2,244	1,814
Violence	1,187	1,340	2,179
Diphtheria	2,311	1,090	1,436
Scarlet fever	514	608	977
Measles	167	762	864

The death-rate in 1874 was 27.57; in 1884, 25.82; in 1892, 24.26. There has been, therefore, a diminution in the death-rate of about five per thousand. This probably represents an equal proportionate diminution in the sick-rate. The zymotic diseases seem, on the whole, to be less in number, although the year 1874 represented an epidemic of diphtheria, to which we may be again liable. Furthermore, the best results of preventive medicine are found in the well-to-do, the more intelligent, and better-housed classes; in other words, those that can pay the physician.

We believe it may be safely said, then, that there is at least less severe sickness than formerly, and that this is one element in the hard times of which physicians speak —we will not say complain.

The physician, to his credit, has always been foremost in his advocacy of preventive medicine. He will not any the less cease his advocacy because it pecuniarily does him harm. Happily, the medical man is not guided by mercenary impulses alone. He recognizes that there are many things which he must do simply because they are right.

OSTEO-ARTHRITIS.

RHEUMATIC gout, known also as rheumatoid arthritis, rheumatic arthritis, asthenic gout, and best of all as osteo-arthritis, is a chronic constitutional disease of lowered vitality, occurring most frequently in persons under forty who give a family history of gout, rheumatism, phthisis, and sometimes nervous disease. Its assumed causes are many, such as long-continued hard work, mental worry, occupations favoring exposure, cold, dampness, injury, the wretchedness of poverty, and a trophic neurosis of undetermined origin. An attack of acute rheumatism starts it up occasionally. It may appear for the first time at any period of life, in old age and during infancy. The earlier it begins, the more unfavorable the outlook. It is one of the earliest degenerative conditions; and throughout its course the changes are partly degenerative and partly inflammatory. The power for good that lies in early diagnosis is impossible to over-estimate, since the efficacy of treatment depends largely upon the removal of all depressing causes, and upon the improvement of the general nutrition.

Before there is any joint trouble, there is usually anæmia more or less marked, transient sharp pains in the joints and muscles, especially on the inner side of the wrist or the ball of the thumb, numbness and tingling in the extremities, a crackling sensation and some stiffness in the joints on movement, the whole often accompanied, especially in the young, by rapid pulse and high tension, headaches, pigmentation, and stiffness of the neck and of the jaw on waking. The pain in the thumb, the inner side of the wrist, in the neck and jaw are particularly significant. It is said that osteo-arthritis is the only arthritic disease that attacks the temporo-maxillary articulation. Pain and stiffness here, and tenderness over the spines of the vertebræ, are sometimes the earliest premonitory signs.

Osteo-arthritis is not rheumatism, neither is it gout; rather is it an offshoot from a parent stem of which gout and rheumatism are both branches. Gout is chiefly confined to the male sex. Rheumatism affects men and

women equally. Osteo-arthritis attacks the weak and slender, and women far more frequently than men. There is little or no fever, dyspeptic symptoms are not prominent, and the heart and its membranes are not involved. Attacks are frequent, increasing in severity with each occurrence, symptoms are obstinate, the small joints are affected in preference to the large ones, and several may be implicated simultaneously. Rheumatic gout lasts ten, twenty, thirty years, is slowly progressive, and involves joint after joint. It does not directly cause death, though it adds materially to the burden of living. The disease runs a slow, definite course that is but slightly modified by any remedies yet known. Unless carried off by intercurrent disease, the death of the osteo-arthritic is due either to phthisis, nephritic troubles, infection from bed-sores, or cerebral hemorrhage. Affections of the lungs and kidneys are the commonest causes of death, though exhaustion induced by pain is also a factor in bringing life to a close.

One of the valuable books of the year is "A Dissertation on Osteo-Arthritis," by W. H. Russell Forsbrook. It contains six chapters: on the history of the disease, on etiology, morbid anatomy, pathology, clinical history, treatment, and illustrative cases. There is a careful *résumé* of all the old views, and evidence of much painstaking research to establish some that are new. Quoting Duckworth: "The nervous system is markedly implicated in the arthritic diathesis, and both rheumatic and gouty diseases point to the probability of there being a trophic centre or centres for joints situated in the spinal marrow. Morbid and unstable conditions of these may result in a definite neurosis, which itself may be either inherited, acquired, or modified in particular instances," the author conjectures that the deficiency of oxygen in the blood of persons predisposed to osteo-arthritis may over-excite the vaso-motor centre in the medulla and cause constriction almost to obliteration of the minute vessels supplying the smaller joints, and, it may be added, the small peripheral nerves also, in this way cutting off their blood-supply and consequently interfering with their nourishment. Likewise the blood-supply through the vessels of the nerves going to the joints, etc., will be more or less interfered with, thus giving rise to degeneration of some of their fibres and so becoming another factor in the malnutrition of joints. On account of this deprivation of blood, these joints would ultimately undergo an organic change, though at first subject to a mere functional disturbance. After a time the stimulation of the vaso-motor centre must end in its exhaustion, giving rise to dilatation of the vessels and changes in the joints, and perhaps in the peripheral nerves also. These two forces repeated over and over again, would explain, according to the degenerative and inflammatory theory, the morbid features present in the joints in osteo-arthritis, and also the changes in the shafts of the bones themselves, for their nutrition would be interfered with through their dependent nutrient vessels. In this affection is found the one great exception of securing rest to a diseased joint. Except in an acute attack, active and passive movements of the joints must be kept up as long and freely as possible. Muscular strain that is relatively great should always be avoided, as lifting, carrying, climbing, or occupations making great demands upon the small joints. Such activities may induce an acute attack. The soil is always favorable in the predisposed, and strain, either mental or physical, precipitates the difficulty.

The treatment of rheumatic gout, or osteo-arthritis, consists in the removal, as far as possible, of all depressing influences, in the improvement of the general nutrition, in the administration of drugs and the employment of measures that will produce absorption. In no condition is environment, and all that it implies, of more importance and of greater force. It is one of the cases where experience proves that surrounding relatively perfect for the patient will overcome or hold in abeyance the effects of heredity that make for disablement and restricted usefulness. A warm, equable, dry climate is the ideal. Sunshine, daylight, fresh air, and bright cheerful rooms, outdoor exercise and regulated gymnastics, the correct uses of water, and proper clothing are among the essentials. The patient must always be well nourished, meat forming the chief article of diet. Whatever food is found to improve the general health may always be given with advantage. The disease arises from so many different causes that there can be no fixed rules of medication. If anæmia is present, the blood must first be restored to its normal condition and there maintained, which is best done by the cold affusion, the needle-bath, and the Scottish douche. Acute attacks are best treated by light diet, absolute rest in bed, heat to the affected parts; small doses of mercury first, and whatever remedy afterward that the patient's prominent symptoms or general condition seem to call for. Prostration is out of all proportion to the severity of the attack, apparently, and in many instances requires special and continued attention. Each case is peculiar, and must be treated on its own merits.

In the chronic form of osteo-arthritis the drugs most serviceable are iodides, free iodine, arsenic, guaiacum, actæa racemosa and fraxinus excelsior; and quinine, strychnine, and nux-vomica. Cod-liver oil for a long time in fairly large doses is the most valuable remedy of all. When the joints are painful or swollen, they may be painted with the tincture of iodine, strapped with plaster, or rubbed with belladonna liniment. Garrod speaks highly of the use of a liniment of cantharides that is more convenient than an ordinary blister; he also recommends rubbing the joints with iodide of cadmium night and morning. Burying the affected parts in sand as hot as it can be borne for an hour or two, three times a day, is advised by Trousseau. Electricity (continuous current) relieves pain, lessens deformity, aids absorption of nodosities, and restores wasted muscles to their normal bulk and tone. The intensity of the current should be about fifteen to twenty milliampères. The applications, from ten to fifteen minutes in duration, should be made every day for the first month. Mild Turkish baths are of benefit. Mineral springs and baths that are highly recommended are Royat, Schwalbach, Pyrmont Spa, and Aix les-Bains. Above all and beyond everything, management is the chief factor in treatment. To take an illustration from the industrial world, the patient is the laborer, nature is the capital, and the physician is the manager, the middle man, who directs the forces of each into channels that result in the relatively perfect health that is a fortune.

There are Fifteen Vacancies in the Medical Department of the U. S. Army.

FALSEHOOD AND CRIMINAL WOMEN.

In certain localities, women, like the traditional Irishman, have the reputation of thinking too much of the truth to be trotting it out on all occasions. For Lombroso and his disciple Ferrero (*Archives d'Anthropologie crim., de Criminologic*, March, 1893), lying is almost a natural attribute of womankind, even if upright and virtuous. But strangely enough, these writers fail to define the virtuous woman. An ancient chronicle states that the virtuous woman opens her mouth with wisdom. And this same authority affirms that wisdom is first pure, then peaceable, gentle, and easy to be entreated, full of mercy and good fruits, and without hypocrisy. The Lombroso school preaches the inglorious doctrine of irresponsibility. We do what we do because we are what we are; and we are what we are because our ancestors were what they were. As volition counts for nothing, since conduct is purely automatic, posterity and others are kindly exhorted to grin and submit gracefully to adverse automatic acts that are as they are because things were as they were. Many mistakes based upon this theory of fatal determinism have been mercilessly exposed by Baccaro at the Congress of Criminal Anthropologists in Brussels. Yet Lombroso deserves credit for the great service done by his practical object lesson, that to combat crime it is necessary to study the criminal.

That lying is the natural attribute of womankind, Ferrero thinks is due to weakness, to insufficiency, to modesty, and to various social conditions that will disappear in some improved state of society. Criminal women deny offences in spite of proof positive. The mental attitude that prompts such a woful exhibition seems to be a state of intellectual insensibility that results in a total absence of logic. By repetition these startling accounts take on a semblance of reality in the mind of the narrator (anto-suggestion). As Ferrero points out, the study of womankind is the study of contradictions. Side by side with this propensity for falsehood is another equally fateful, and that is a powerful impulse toward undue veracity. Guilt is avowed unblushing and without constraint. This, too, is a psychic phenomenon that has its origin in emotion. Needless truth and unnecessary lies impose on juries, Ferrero thinks, and result too often in the acquittal of women that are dangerous to the community. The fact is, Charles Lamb summed up the ideal of truthfulness when he said that truth is too precious to be told to everybody. The ideal woman is truthful, but without being too truthful, reticent, without being too reticent, and many other things, without many other things.

THE EYE-SYMPTOMS OF BRAIN DISEASE.

Considering the eye from the point of view of development, the retina and optic nerve are to be regarded as a prolongation of the brain. The three sheaths of the optic nerve are a direct continuation of the three meninges, dura mater, arachnoid, and pia mater, separated by the subdural and subarachnoid spaces, which communicate with the same cerebral spaces. These spaces are lined with endothelium and are to be considered as lymph-channels of the eye. Schwalbe, Quincke, Deutschmann, and Gifford have demonstrated that in these spaces there is a lymph-current from the brain to the eye.

This subject of eye-symptoms is treated at length in a paper by Dr. Charles Zimmermann, in the *Medical and Surgical Reporter*, July 29, 1893. One of the most important and most interesting ophthalmoscopic symptoms is the optic neuritis usually called choked disk or papillitis. The optic disk presents the aspect of congestion, with œdema, increased redness, blurred edges, radiating striation of whitish nerve-fibres spreading into the retina, and sometimes small hemorrhages with general cloudiness. The arteries are concealed at their emergence and narrowed; the veins are dilated, tortuous, and look dark as if cut in pieces. The trunk of the optic nerve shows changes of an inflammatory character. In case of a rapid course, as in syphilis, the development of papillitis may take place in two or three weeks, remain at its height for two weeks, and then subside. But when caused by a cerebral tumor, optic neuritis progresses very slowly. Then it may last for weeks and months, and subside and pass into atrophy. Papillitic atrophy is brought about by the shrinking and strangulating influence of the connective tissue into which the newly-formed inflammatory products have been transformed. A strange peculiarity in cases of much marked pathological change, is the integrity of sight, visual field, and color perception. A sudden blindness in optic neuritis comes on only when associated with mischief farther back in the optic path. The amblyopia caused by the inflammatory process when at its height, may nearly disappear as the inflammation subsides, but again be renewed by the subsequent contraction of the connective tissue. Even after the healing of the papillitis with restoration of vision, sight may be lost entirely from some affection of the optic fibres within the cranium and without further ophthalmoscopic changes. Intra-cranial diseases are the most common causes—as tumor, meningitis, abscess, hydatid disease, and cerebral softening. Neuritis occurs in about four-fifths of the cases of tumor; and glioma, sarcoma, tubercle, and syphiloma are usually associated with optic neuritis. Experiment and observation make it seem probable that the papillitis dependent upon intra-disease originates in a descending inflammation of the optic nerve, an inflammation conveyed from diseased portions of the brain into the subvaginal spaces by a powerful lymph-current. The pathogenetic material will accumulate chiefly at the culde-sac of the space next to the globe, and therefore produce the most striking changes at the intra-ocular end. Direct pressure on the optic fibres in the chiasm, at the optic foramen, or at the base of the brain, by tumors, internal hydrocephalus, distended third ventricle, meningeal exudations, aneurisms, or exostoses of the cranial bones, may cause simple atrophy of the optic nerves. Blindness, however, may occur in cerebral disease without ophthalmoscopic change.

Morphinomania among Medical Men.—Some statistics as to the prevalence of morphinomania in France, recently published by M. Lacassagne, show that the destructive habit finds a large proportion of its victims among members of the medical profession. Of 545 morphinomaniacs as to whom he was able to procure information, 289 were doctors. It is well known that several of the most distinguished men of the profession in Germany who have died in recent years were devotees of the fatal drug.

News of the Week.

The Medical Society of the County of St. Lawrence, N. Y.—The Medical Society of the County of St. Lawrence will hold its semi-annual meeting at the City Hall, Ogdensburg, Tuesday, October 17, 1893, at twelve o'clock.

Antisepticism and Edinburgh Surgery.—A correspondent sends *The Lancet* the following: "'For clean, aseptic surgery go to Hamburg or Glasgow; for dirty surgery go to Edinburgh.' This short and pithy advice, the dictum of a famous Glasgow surgeon, was given to a circle of medical men on the deck of a Leith and Hamburg steamer in the summer of 1890, when the whole medical world seemed to be doing the pilgrimage to Berlin. As the group was composed almost entirely of Edinburgh men, the above remarks were greeted with a shout of laughter; nevertheless, there may be something in the statement to which Edinburgh surgeons may well give heed, particularly as the recent American testimony (that of the 'intelligent foreigner,' which is supposed to foreshadow the deliberate conclusion of posterity) points in the same direction."

Napoleon the First's Medical Advisers.—From a curious work by M. Maze-Sencier, entitled "Les Fournisseurs de Napoléon Ier," we glean a few details concerning the *petit caporal's* physicians, surgeons, chemists, dentists, corn-cutters, etc., who cost him annually the sum of 201,700 francs. His chief physician (Corvisart) received 30,000 francs, *plus* 4,500 francs for office expenses; Hallé, his physician-in-ordinary, received 15,000 francs; Lanfrancque, Guillouneau, Lerminier, and Bayse, who took duty in turns at the Infirmerie Impériale, were each paid 8,000 francs; four other practitioners, who acted as consulting physicians (Malet, La Pieux, Pinel, and Aubry), received each a salary of 3,000 francs; the chief surgeon (Boyer) was paid 15,000 francs, and the surgeon-in-ordinary (Yvan) 12,000 francs. It was Yvan who dressed Napoleon's wound at Ratisbon in the year 1809, and his portrait appears in Gautherot's picture—now at Versailles—of the incident. The four surgeons of the Imperial Infirmary were Horeau, Vareillage, Lacouenère, and Ribes, and the pay attached to their office was 6,000 francs. Napoleon's surgeon at Saint-Cloud, which he frequently inhabited, was Lassoujade, who received 4,500 francs. Each of his consulting surgeons received 3,000 francs; they were Pelletan, Percy, Sabatier, and Dubois. It was Dubois who was in attendance on the Empress, Marie-Louise, in her confinement. The process being long and laborious, he communicated his anxiety on the subject to the Emperor, whose reply was, "Faites comme si vous aviez affaire à une bourgeoise de la rue Saint-Denis; surtout, Dubois, sauvez la mère." The case did well, and the Emperor, delighted, told Corvisart to ask Dubois what reward he desired for his services. The latter, who was evidently a man of a practical turn of mind, gave the following modest reply: "Dis à l'empereur que je désire beaucoup d'honneurs et beaucoup d'argent." Let us hope that a *douceur* of 100,000 francs and his elevation to the rank of baron satisfied the cravings of the ambitious accoucheur for advancement. Napoleon had also his surgeon-dentist and his *chirurgien-pédicure*, whose salaries were respectively 6,000 francs and 2,400 francs. Seven *pharmaciens*—one being at St. Cloud—received an aggregate sum of 23,000 francs per annum. The Emperor professed a disbelief in medicine, and frequent discussions on the subject took place between him and Corvisart, who, true to his courtier instincts, always allowed himself to be convinced by his Imperial master's arguments. Corvisart, however, had his revenge when he cured him of scabies caught at the siege of Toulon. The playful sarcoptes is evidently no respecter of persons.

The Illinois State Board of Health, at its last meeting, decided to resume the publication of the reports on medical education. For the last two years, owing to various causes, none have been printed. Dr. J. Collins Warren, President of the Section of Pedagogy of the Pan-American Medical Congress, in his address, after reviewing the subject in this country, says: "The reports on medical education by the Illinois Board, I do not hesitate to say, have exerted a more powerful influence on the movement in education than any other publication which our medical literature has produced." This is undoubtedly true. These reports were object-lessons to the profession and to the schools, and presented truthfully the status of the colleges. Dr. F. W. Reilly is now engaged in preparing the forthcoming report. He is eminently qualified for the task, having assisted in the preparation of nearly all the reports that were issued by the Board.

To Medical Students.—Our medical colleges are now being filled with ambitious and eager young men. Many of them have doubtless received words of advice from parents, instructors, and friends. All, however, may well bear in mind the words of Sir Astley Cooper, spoken many years ago at the Royal College of Surgeons: "Gentlemen, you are about to enter on a noble and difficult profession; your success in it depends on three things: First, on a good and thorough knowledge of your profession; second, on an industrious discharge of its duties; and third, on the preservation of your moral character. Without the first—knowledge—no one can wish you to succeed; without the second—industry—you cannot succeed; and without the third, even if you do succeed, success can bring you no happiness."

The Death of Dr. William F. Hutchinson, of Providence, one of the most prominent surgeons of Rhode Island, is reported as having taken place on Monday, the 2d inst.

The New York Infant Asylum.—Dr. Egbert H. Grandin writes as follows to the *New York Medical Journal:* The resignations from the Medical Board of the New York Infant Asylum and recent comments in one of the New York daily papers lead me to send you the resolutions adopted at the last meeting of the defunct board, authority to publish which was given me at my discretion. I have hitherto refrained from doing so for the reason that I did not see any good to be gained by washing what doubtless the Board of Managers will term "dirty linen" in public. In view, however, of the reported comments of certain of these managers, it seems eminently fitting that medical men should understand distinctly the causes which led to wholesale resignations

from one of the greatest charities (using the term in its true sense) in the city, for thereby alone will medical men be enabled to judge as to whether their self-respect as men and as physicians will allow them to fill the vacant places under the present management. Medical men may be cheap, as it has been stated, but when a principle is at stake medical men ought to stand together and thereby furnish a living denial of the allegation. All positions are not golden ones, and official titles at the cost of one's self-respect are unworthy of our acceptance. I append the resolutions:

Whereas, The Medical Board of the New York Infant Asylum respectfully requested the Board of Managers: 1. No faithful medical officer shall be removed without cause. 2. Nominations to fill vacancies shall emanate from the Medical Board;

Whereas, These reasonable and just demands have been peremptorily refused by the Board of Managers;

Resolved, That, in dignified protest and in justice to themselves as men and physicians, the following members of the Medical Board hereby resign.

These resolutions were signed by eighteen medical men who for years had given their time, their skill, and their money to the institution. These resolutions were adopted after nearly six months' fruitless endeavor to adjust matters amicably and equitably. This action is now characterized as "tomfoolery." One of the managers is reported to have said that he did not care a "picayune." The medical profession may now judge for itself. The gentlemen who resigned have absolutely no nuts to crack. They left the institution they had served well with regret and they wish well to those who succeed them.

Harvard Medical School.—The Harvard Medical School has an entering class this year of somewhat over ninety—a falling off of about twenty from the number last year.

More Board of Health Physicians.—At a meeting of the Board of Estimate and Apportionment, held September 28th, an appropriation of $3,000 was made to the Board of Health for the employment of fifteen extra physicians for the free vaccinating corps. At the same meeting $539,248 was voted for public-school improvements, and $50,000 for the further purification of the Croton water-shed.

Hereditary Polydactylia.—Charles Hodge, a lad, thirteen years of age, of Newark, N. J., who was born with twelve fingers and fourteen toes, was recently relieved of the extra members at St. Barnabas' Hospital. It is stated that this superfluity of fingers and toes is a hereditary characteristic on the maternal side, running back for several generations, and that among the family relics is a bottle of alcohol in which are preserved a number of fingers and toes removed from various ancestors.

The Death of Dr. Clarence Glisan, of Portland, Ore.—Clarence Glisan, A.B., M.D., died in Portland, Ore., August 30, 1893. About a week previous to the time of his death he was attacked with appendicitis, which grew worse, and resulted in an operation for the relief of his suffering. The operation revealed a perforated ulceration of the bowel near the appendix and serious disease of the appendix itself. Death soon followed the operation, the result of general peritonitis and exhaustion. Dr. Glisan was twenty-eight years of age, born in Portland, and was the son of the late Dr. Rodney Glisan, one of Portland's oldest and most celebrated practitioners. Young Dr. Glisan graduated with honor in the literary department of Yale University, receiving the degree of A.B. He graduated at the College of Physicians and Surgeons of New York in 1890, and took a further course at Bellevue Hospital, where he served as house surgeon, and graduated in 1892. He then opened an office and began practice in Portland. He was a conscientious student and in love with his profession, and those who knew him looked forward with pleasure to the time when he should stand upon the very foremost plane of professional life. "His death is untimely and his brethren mourn." He leaves a mother and two sisters, besides his younger brother, Rodney Glisan, Esq., a rising attorney of this city.

Dr. Jesse Lee Morrill, Secretary of the Obstetrical Society, is reported to be seriously ill of septicæmia contracted at an autopsy.

Cholera is Abating in Russia, and the general outlook is good accordingly.

Ohio State Association of Railway Surgeons.—The second annual meeting of the Ohio State Association of Railway Surgeons was held in the Forest City Hotel, Cleveland, October 12 and 13, 1893.

The Cincinnati Academy of Medicine.—The opening sessions of this society give promise of a fruitful year's work. Instead of a committee laboring with members to get them to read papers and to take part in discussions, members are clamorous for assignments when they may have an opportunity to read or speak. This is as it should be, and calls out large audiences. Lancet Hall is already too small to accommodate the numbers in attendance, and the necessity for a home building is apparent. The building fund grows slowly, but will fatten greatly during the coming year.—*Cincinnati Lancet and Clinic.*

Insomnia Parties.—A society young woman of Buffalo has devised a novel entertainment, which is shortly to be made public. It is to be a "reception for people who can't sleep at night." Among her friends, she says, are a great many very delightful people who are troubled with insomnia, and who confess that they spend many frightful, wakeful hours walking the floor, looking out of the window, rocking in easy-chairs, trying to read or write, and in other useless and tiresome occupations. When her plans are fully matured this original young woman intends, on at least two nights in every week, to be "at home" to those distressed female friends from midnight until morning. The guests are requested to appear in any unique, respectable bedroom gown, bath robes not excluded; the lights are to be dim, soothing music and stupid conversation will be the only diversions permitted, hot chocolate and light wafers will be served, couches and easy-chairs will be provided in abundance, and the insomnia victims are earnestly desired to fall asleep as soon as possible. It is whispered that prizes will be offered for the first snore, but this detail is not authentically announced. The reception is to be a fact, however, and an eager expectancy as to invitations is in the air.

Society Reports.

Pan-American Medical Congress.

First Meeting, Held at Washington, D. C., September 5, 6, 7, and 8, 1893.

(Special Report to the MEDICAL RECORD.)

(Continued from p. 475.)

SECTION ON HYGIENE, CLIMATOLOGY, AND DEMOGRAPHY.

ALBERT L. GIHON, M.D., MEDICAL DIRECTOR, U. S. N., WASHINGTON, PRESIDENT, IN THE CHAIR; ENGLISH SECRETARY, PETER H. BRYCE, M.D., TORONTO, CANADA; SPANISH SECRETARY, PEDRO JOSÉ SALICRUP, M.D., NEW YORK CITY.

THIRD DAY, THURSDAY, SEPTEMBER 7TH—MORNING SESSION.

Sanitary Precautions.—DR. J. E. MONJARAS, of San Luis Potosi, Mexico, read a paper in Spanish on "Sanitary Precautions, Isolation, and Disinfection, etc." He took emphatic ground for the control of all contagious and infectious diseases. They should be isolated in suitable buildings or tents. Rooms vacated by such patients should be scientifically disinfected, as well as all clothing, furniture, etc.—in fact any substance or material that might retain or convey the disease. He discussed modern disinfectants and their scientific application.

It is clearly the duty of medical men to instruct families in sanitary matters as well as on all points of public health. He knew that the task was a very difficult one, but it must be done in the interests of mankind.

Personally, he favored a general hospital to receive all patients suffering from any disease from which others might become infected. An International Congress should deal with the matter and devise measures. It was vastly important to mankind. Hospitals and tents he deemed best for purposes of isolation.

Next in order he considered the increased safety to the general public as a result of such isolation and precautionary measures in the curtailing and stamping out of disease.

Disease-germs and their dangers were dwelt upon. The dangers of such germs in dust scattered by wind. The mouth is merely a door of entrance to the body, an excellent culture medium.

Referring to infected clothing, he spoke of the safest of methods, or the English, that of destroying it by fire. He illustrated the danger of infected clothing, citing a case where a ball-dress conveyed disease—typhoid fever. It had been left in a room where a child had had typhoid.

Germs and spores. He referred to spores as being almost indestructible. Dr. Monjaras closed a lengthy paper, embodying the latest views of sanitarians.

Practical Measures in the Prevention of Tuberculosis, was the title of a paper by DR. LAWRENCE FLICK, of Philadelphia. The history of tuberculosis, he said, was a broad demonstration of its communicability. He then entered on a very full and comprehensive statement of facts regarding this dread disease, one so fatal to the human family. The excellent work done in Philadelphia by its Board of Health, in tracing cases of tuberculosis to infected houses, was fully explained. Death after death had occurred in the same dwellings—in short, infected premises. He made the remedy plain.

Spain and Italy by precautionary measures had greatly lessened the mortality. Similar measures introduced in England had reduced the mortality fifty per cent.

Tuberculosis in men and animals, and its general distribution, followed. The paper was a masterly summary of the latest evidence bearing on tuberculosis as a communicable disease. The paper met with warm approval.

In the absence of their authors a number of papers were read by their titles in English and Spanish.

International Uniformity in Quarantine.—DR. JUAN J. ULLOA, of San José, de Costa Rica, Central America, read his paper in English on "International Uniformity in Quarantine Regulations." He introduced the subject by stating that medical men were the apostles of health. To do effective work, the people of the American continent must be educated up to the standard of scientific requirements.

In Spanish America the sanitary regulations of ports, as far as their marine hygiene was concerned, were very defective. They, as a whole, lacked a proper quarantine service, and were wholly wanting in modern disinfecting apparatus.

He spoke of Costa Rica as having no established quarantine service worthy of the name. The Spanish American Republics, he said, failed to protect themselves, and consequently, if infected, endangered all countries with whom they had commercial relations. He deemed the lack of a proper system responsible for the readiness with which Spanish America declared a quarantine against any infected port or country; as once invaded by any contagious or infectious diseases, the Spanish American Republics were almost powerless.

He proposed a broad-gauge system to meet the want—"A Pan-American system of hygiene and quarantine." A code should be formulated for all the countries being constituent members of the Pan-American Medical Congress; such countries should have a National Board of Health, under central control, the whole being subject to instruction, on all matters of public health, to the International Board of Health. As head-quarters for the latter, he suggested Washington as the centre. The International Board to deal with all matters for the welfare of the American continent. The scheme outlined by him was an extensive one, and if adopted, will be of great value. The paper was timely, and carefully elaborated. His having read it in English was a delicate compliment to the Section, and was fully appreciated.

An interesting discussion followed, Surgeon-General Muniz, of the Peruvian Army, and Dr. Peter Keyser, of Philadelphia, taking an active part. It covered the whole question of Maritime Sanitation. A committee was named, when the views of Drs. Muniz and Keyser, being those of the Section, were embodied in a motion and carried.

DR. PALTON, of New Orleans, La., took up the subject of yellow fever, and the duties of shipmasters at sea, when it appears among their crews. Many sailors died on shipboard for want of the most ordinary precautions. Governments should protect shipping interests wherever trading with the Southern Hemisphere. A motion embodying Dr. Palton's views was carried.

The Distribution of Diseases.—DR. WOLFRED NELSON, of New York City, formerly of the State Board of Health, Panama, South America, read a paper entitled "The Distribution of Disease, or Isthmian Practices, or the Direct Responsibility of Colombia, South America, in the Burial and Unburial of the Dead on the Isthmus of Panama." The paper dealt with an old-time practice, one still in vogue on the American Isthmus, or that of burying and unburying the dead. A custom due to using the same grave over and over again. The dangers of liberating millions upon millions of germs of smallpox and yellow fever, as well as other infectious and contagious diseases, received vigorous treatment.

The Isthmus of Panama was described as being the "Gate to the Pacific." The distribution of yellow fever, up the coast of Central America and Mexico, and down that of South America, was clearly shown all by way of Panama.

Despite a vigorous protest made some years ago on the Isthmus, the practice of digging a small cemetery over and over again goes on, to the profit of its *concessionnaire* and the endangering of many.

The Boroedas system was explained. A species of stone quadrangle filled with niches or openings large enough for a single coffin. It was denounced as dangerous to a

degree; a mass of masonry infiltrated with products of disease.

From time immemorial the Isthmus of Panama has been historic as a pestilential and death-dealing spot, or a disease-producing and distributing centre. While Isthmian practices continue it will remain so. He said, "In conclusion, I can but add, in the words of a distinguished American, a statesman admired at home and respected abroad—what obtains there, 'is a condition and not a theory.' It now remains for this body of sanitarians and experts to say what shall be done with it."

Is Leprosy Contagious?—Dr. Lee, of Philadelphia, followed with a paper on "Leprosy." He reported some five hundred or six hundred cases in the United States. He had collected the data largely from dermatologists and others. He was inclined to think that the exact number of cases was less than five hundred or six hundred, as probably some of the cases had been seen twice. He deemed it a very dangerous disease and one calling for legislation. He said that, as an outcome of efforts made in Pennsylvania, some legislation had been enacted to keep out the loathsome disease, that all lepers should be returned to the country whence they came.

It should be met (the disease) by a maritime quarantine of exclusion. He believed in the absolute segregation of lepers. Of the cases reported by him, 117 were known to the authorities; of 90 cases, 7 were in hospital and 3 under treatment. His data he said were imperfect; 10 were Americans, 6 Chinese, 12 South Americans, etc. He referred to the famous Philadelphia case that made such a stir some time ago—that of a cook in a hotel.

Following Dr. Lee's paper, the Section adjourned to 3 P.M.

Afternoon Session.

Dr. Beaven Rake, Medical Superintendent of the Trinidad Leper Asylum, and lately a member of the Leprosy Commission to India, read a paper in which he discussed the possibility of leprosy being communicated from lepers to healthy people.

The Chairman tendered the thanks of the Section to Dr. Rake for his valuable communication, based on ten years devoted to the study of leprosy in Trinidad and India.

Tuberculosis and Leprosy.—The rest of the afternoon was devoted to a discussion on tuberculosis and leprosy. Dr. Peter D. Keyser, of the Philadelphia Board of Health, opened the discussion on tuberculosis. He said we must educate the public. The Philadelphia Board of Health, like all others, had had its troubles. A law should be made that the public will respect; when they know that it is for their benefit and sustained by authority, they will accept, but not before.

Dr. A. N. Bell, of Brooklyn, said that all were familiar with the scientific efforts to curtail the disease. He deemed a thorough system of registering deaths necessary, such as obtains in England. He was opposed to having consumptives massed in hospitals. He was fully convinced that the disease was infectious. All were familiar with the stifling bedrooms of consumptives, be they of high or low degree. A lengthy debate followed, all being in harmony as to the dangers of the disease. The whole question concerns the people, and should be made an object-lesson for them.

Dr. Peter H. Price, of Toronto, Deputy Registrar-General of Ontario, had examined the death statistics of three counties in that Province, taking all returns for eleven years back. He had data of 1,184 deaths from tuberculosis, in three counties averaging from 3,000 to 4,000 each. He noted that in 813 of the cases thirty-three per cent. of the names were repeated in the lists.

Action should be taken to prevent its dissemination. The name tuberculosis should be added to the list of contagious diseases, with a view of preventing its spread. There should be State as well as general control of railways and steamers, thereby preventing consumptives travelling in cars or steamers, on which they undoubtedly leave contagion and thereby infect others. Dr. Bryce's views were in harmony with those of Dr. Gihon, whose opening address covered the subject of the dangers left in the train of all phthisics.

As a direct outcome of Dr. Lawrence Flick's able paper and the discussion, the following motion by Dr. Peter H. Bryce, seconded by Dr. Flick, was carried.

Resolved, That it is the view of the Section of Hygiene, Climatology, and Demography, that in view of the fact that tuberculosis causes more deaths than any other disease, that it is now known to be communicable, especially to persons living in houses and shops with consumptives, that the attention of National, State, and Municipal authorities be directed to the necessity for controlling the dissemination of the disease: 1. By notification by physicians and landholders. 2. By the registration of the residences of the tubercularized. 3. By controlling their movements so far as possible. 4. By the establishment of hospitals and homes for the infected poor.

The discussion on leprosy was opened by Dr. Lee, of Philadelphia, the reader of the paper on leprosy, at the morning session. Practically he restated his case as to the great dangers to the public from lepers, and was in favor of legislative interference, etc.

He was followed by Dr. Wolfred Nelson, of New York City, for many years a practitioner in the tropics, and who had given the disease special study in its own habitats. Dr. Nelson emphatically denied that lepers were dangerous to the public. From statements based on experience he marshalled an array of facts in proof of his views—they being in perfect harmony with Dr. Beaven Rake's extended experience. He spoke of domestic or American cases, citing the Galveston case, where a married man had had the disease twenty years, yet his wife was perfectly healthy. During the whole time they had lived together as man and wife. In this vast republic the few cases cited by Dr. Lee were of no moment. In Canada the disease in the maritime provinces was dying out. Of children born to lepers in the Hawaiian Islands only twenty per cent. became lepers. He warmly appealed to a sense of fairness and justice, and begged the Section to do nothing rashly to add to the burdens of an afflicted class. "The truth, the whole truth, and nothing but the truth," he said. Why legislate against a harmless class when syphilitics and consumptives, known and accepted sources of positive danger, go free? He apologized for referring to his own work on leprosy, as published in the reports of the California State Board of Health some years ago. He referred to the Trinidad Leper Asylum, presided over by Dr. Rake, an institution well known to the speaker, who there had made photographs of many of the patients. He closed his appeal for fair play, based on facts, not theories, by stating that for eight and twenty years the Sisters of Charity had had charge of the Leper Asylum at Trinidad. During that long interval, surrounded by and attending exclusively to lepers, not a single case had developed among them. He asked the meeting wherein laid the so-called dreadful contagion of leprosy?

When the motion was put the large meeting sustained the views of Dr. Nelson. Drs. Lee and Shakespeare, of Philadelphia, dissenting. On motion of Dr. Baker, of the Illinois Board of Health, Dr. Lee's motion for legislative interference was tabled.

The meeting then adjourned to the following day.

Boric or Boracic Acid, though used so much as an antiseptic, is in reality a very inefficient substance. The minimum degree of concentration at which it is at all reliable is 1 to 13. This means over one ounce to the pint, a strength very rarely used in practice.

In Eczema situated at the junction of mucous membrane and skin, a simultaneous treatment of the mucous catarrh is absolutely necessary.—Jamieson.

CANADIAN MEDICAL ASSOCIATION.

Twenty-sixth Annual Meeting, held at London, Ontario, September 20 and 21, 1893.

(Reported by our Canadian Correspondent.)

FIRST DAY, WEDNESDAY, SEPTEMBER 20TH.

THE meeting was called to order by the retiring President, DR. J. L. BRAY, of Chatham, who after a few preliminary remarks introduced DR. CHARLES SHEARD, of Toronto, the President elect.

The President's Address.—DR. SHEARD expressed his grateful appreciation of the high honor which had been conferred upon him. When he looked upon those who in the past twenty-five years had preceded him in office, and saw such names as Sir Charles Tupper, Sir James Grant, Dr. Howard, Dr. Osler, Dr. Hingston, Dr. Mullen, and many others, who might be said, as the pioneers of medical practice in the Dominion, to have carried the interest and character of the profession to its present high respectable place, the meeting could understand that he (the President) acceded to the discharge of his duty with some trepidation. It became apparent twenty-six years ago to the fathers of medicine in the country that it would be a wise thing to unite the ablest of the best elements of medicine in Canada, so that in unity they might advance to material progress, that they might ever defend themselves against the inroads of charlatanism and scepticism, so ready to scoff at true scientific judgment, and by cultivating friendly feeling and advancing special lines of work they could attain to a measure of progress which would be mutually beneficial.

In alluding to the grand results arising from the Association, Dr. Sheard said that when it had set an impermeable front, which only the boldest and rudest would attempt to attack, when it was of still more value to younger men, when it had left an example which would live long after the oldest members had passed away, surely it could be said that the Dominion Medical Association had not lived in vain.

Reference was made to the names of some of the past presidents of the Association; men, who had left behind them a character and an example, which every young man starting out in his profession ought to remember. Unfortunately there was a growing tendency for the younger man to assume that it was reserved for him to know all the best and most improved methods of scientific discovery, and while some of these might not be as familiar to his older colleagues, and while some of them might be occasionally paraded in an uncalled-for manner before a less informed patient, jealousies were apt to arise, which as time advanced tended to prevent that harmony of feeling which should prevail between professional colleagues.

"As there should be unity among the members of the profession in Canada, so there should be some unity of privilege," continued the President. "It appears to me scarcely conducive to professional unity that we should have in the various Provinces of the Dominion separate licensing bodies, which confer the privilege of practising only for the Province, and that those of us who may today reside in Ontario in travelling to Manitoba or British Columbia require there to pass a period of naturalization before we can even be examined, and have then to pass again an examination which proves our qualification to practise—and this in our own country. Surely we are all Canadians, and if the spirit of the times means anything, we are united in patriotic feeling and national progress. Why should it be different in medicine? I may express the earnest hope that the time is not far distant when there will be some central examining board or boards for the whole Dominion, when a license from such a body will be a qualification to practise from one end of the country to the other."

Alluding to the subject of medical progress, Dr. Sheard said, "The practice of medicine in the last decade has been more particularly signalized by the advancement of pure science, and the science of bacteriology has now become a science of diagnostic medicine.

"In the diagnosis of tubercle the bacterial examination of the sputa in phthisis is quite as correct diagnostically and more certain than the examination of the skilled auscultator. In the diagnosis of Asiatic cholera the most expert physician waits for the deliberation and revelations of the bacteriologist, and in many other ways we see the practical results and usefulness of scientific advancement. It has been the history in the past for diagnostic principles to precede curative measures, and I entertain little doubt that those of us who are spared another ten years may see a solution to the difficulty which besets the cure of phthisis, and such diseases whose causation within the last decade has been so clearly demonstrated.

"Science and practice of medicine go hand in hand, as science and art everywhere. Science smoothes the ground for art to follow, never antagonistic, ever in unison.

"We must ever guard against the tendency to separate the science of art and medicine. The more advanced methods of observation, the carefulness and delicacy of manipulation, requisite in handling scientific apparatus, render it in a measure imperative that one who adopts the scientific fields of labor must withdraw from active practice.

"The physiologist must not only understand the most sensitive electrical apparatus and electrical law, but he must be also a mechanic, a careful dissector, and a man of marked ingenuity. Truly, as Oliver Wendell Holmes said, the greatest, broadest, the most mutual and attractive of sciences is physiology. The noblest study of mankind is man. So in chemistry the details of chemical experiment and the field of chemical investigation are so distinct from the ordinary work of a surgeon that perforce it must be left to the surgeon to proceed upon data separated by chemistry, and when we come into the modern revelations of bacteriology, the preparation of the bacteriologist's media, the careful knowledge of chemistry embodied in his work, the study of air-plates and air-forms, and delicate micro-organisms common to the atmosphere in which he works, the character of this and that product common to his special class, all tend to leave the obverse and reverse of medicine's medal distinct. We must do our part as practical physicians to harmonize and combine these lines of observations if we wish for material advancement. Koch was a general practitioner, Watson Cheyne a consulting physician.

"It is sometimes to the credit of a young country like ours to be able to say that on these lines of scientific attainment Canadians are fully abreast of the times, while we may yet be lacking in men of marked original research. This is not due to lack of intelligence and energy. The development of genius is endemic; it is allied to the friction of mind with mind; it is developed by criticism and comparison, possessed with a desire to excel, until at last it lays bare a truth which startles the world and benefits mankind everywhere."

Dr. Sheard concluded an eloquent and brilliant address by urging the desirability of medical men in Canada being united in everything calculated to advance the interests of the profession throughout the Dominion.

Nominating Committee.—The nominating committee was appointed as follows: Drs. Stewart and Roddick, of Montreal; Graham, McPhedran and McCallum, of Toronto; Harrison, of Selkirk; Holmes, of Chatham; Bucke, of London; Olmstead, of Hamilton; and Fulton, of St. Thomas.

Dominion Registration.—A committee was appointed to consider the subject of Dominion Registration which had been alluded to in the president's address.

The following interesting papers were read. "Some Unusual Conditions met with in Hernia Operations," by Dr. James Bell, of Montreal; "Causes of Blindness in Ontario," by Dr. Osborne, of Hamilton; "Sanitary Science—Some of its Features," by Dr. Canniff, of To-

ronto. "A Case of Pernicious Anæmia," by Dr. Olmsted, of Hamilton.

Puerperal Eclampsia.—Dr. J. Campbell, of Seaforth, presented an interesting paper on "Puerperal Eclampsia." After briefly reviewing the various causes which are generally supposed to provoke eclampsia in the pregnant, he gave a report of a recent case. The patient was pregnant for the eighth time and was at the time seven and a half months advanced. She was taken with severe headache, and felt a beating like a hammer in the head. There was also pain in the left shoulder and neck. The first convulsion was at 2 A.M. He gave a dose of elaterium and one drachm of chloral hydrate by enema, which induced sleep for several hours. Another convulsion followed shortly after waking, although the elaterium was then moving the bowels freely. The chloral was repeated and cold cloths applied to the head. This was followed by another sleep, and on awakening she was given a diuretic mixture containing acetate of potash and tincture of digitalis, but the stomach would not retain the medicine. The urine was literally solid with albumin. As another severe convulsion followed it was decided in consultation to bring on labor. The os was found to be slightly dilated, and the membranes were at once ruptured. Labor pains soon followed and under the influence of the chloral the patient slept most of the time. Natural delivery followed in a couple of hours afterward, a dose of ergot being given shortly before the birth. There were no convulsions after delivery. The diuretic mixture was continued, and the albumin gradually disappeared from the urine.

Dr. Campbell concluded his interesting paper by emphasizing the following indications for treatment in such cases: 1. To eliminate the septic matters from the blood as rapidly as possible. 2. To diminish the sensibility of the nervous system and decrease muscular power. 3. If convulsions come on during labor to save the infant without adding to the risk of the mother. 4. To guard the mother from injury during the attack.

Dr. Lapthorn Smith, of Montreal, questioned the fact of there being an anæmic condition of the brain in this disease. He thought the brain was congested.

Dr. Wesley Mills, of Montreal, defended the theory of anæmia.

Dr. Irving, of St. Marys, said he had his doubts about using ergot just before delivery.

Dr. Bethune, of Seaforth, had seen the case related by Dr. Campbell, and testified to the severity of the convulsions and his accordance with the treatment so successfully followed.

Dr. Campbell concluded the discussion by briefly replying to some questions that had arisen.

The General Practitioner and the Insane.—Dr. J. V. Auglin, of Verdun, Montreal, presented a paper on this subject. He discussed the elementary principles of treatment for the insane and ably reviewed some of the improved methods of dealing with these cases. The asylum was now as free from objectionable features as the hospital. The attendant was no longer a keeper, but the patient's companion.

Is Alcohol in all Doses and all Cases a Sedative and Depressant?—Dr. S. T. F. Harrison, of Selkirk, in an interesting paper, discussed the question. A number of cases were cited to show how through the free use of alcohol some apparently hopeless cases had been saved. Particularly in fevers and diseases of a septic origin had he found alcohol a most valuable agent.

Dr. Arnott, of London, claimed that alcohol was not a stimulant, but an anodyne, and instanced cases where he had used chloroform with good effect where whiskey was generally given.

Dr. T. W. Mills, of Montreal, totally disagreed with the opinions expressed by Dr. Arnott. He regarded alcohol as a most important remedy in some cases, and expressed his disapproval of the present text-books on temperance used in the schools.

Address on Surgery.—Dr. W. H. Hingston, of Montreal, gave an instructive address on Surgery, in which he reviewed the history of several operations.

Displacement of the Kidney.—Dr. F. R. Eccles, of London, read a paper with the above title.

In the discussion which followed, Drs. Ball and Lapthorn Smith, of Montreal, spoke of the abuse of corsets by women as a frequent cause of displaced kidney, and cited a number of examples coming under their notice, illustrating some peculiar symptoms arising from this trouble.

Dr. H. S. Berkett, of Montreal, presented a paper on "Thyrotomy for Large Sub-cordal Spindle-celled Sarcoma," with an interesting case.

Dr. Osborne, of Hamilton, and others followed in the discussion of the case.

The Banquet.—The members of the Association were entertained at a banquet in the evening by the members of the medical profession of the city of London. The chair was occupied by Dr. George Hodge, of London, and the postprandial speeches which followed were of a high order.

Second Day, Thursday, September 21st.

The Address on Medicine.—Dr. A. McPhedran, of Toronto, delivered the annual address on Medicine, which was followed by an interesting discussion.

Cholecystostomy.—Dr. Ferguson, of London, read a report and presented a case of successful cholecystostomy, which had required three operations. The patient was a young married woman, and in the course of treatment eighty gall-stones were extracted.

Dr. Primrose, of Toronto, read a highly interesting paper on "The Anatomical Relations of a Large Malignant Growth in the Neck with a Secondary Deposit in the Lung."

"Two Cases of Laparotomy for Unusual Conditions" was the subject of an interesting paper by Dr. T. K. Holmes, of Chatham.

In the Medical Section Dr. Arnott, of London, read a paper on "Some of the Uses of Sulphurous Acid," and Dr. McKeough, of Chatham, on "The Prophylaxis and Treatment of Puerperal Eclampsia."

Dr. McCallum, of London, and others also contributed highly interesting papers.

Friedreich's Ataxia —Dr. George Hodge, of London, presented three interesting cases of Friedreich's Ataxia—two sisters and a brother. There was no history of a similar disease, or of any nervous disease in the ascendants. Patients are aged respectively forty-one, thirty-seven, and thirty-five. In each the disease began at about the age of thirty-one. The chief symptoms common to all the cases are: Reeling on standing, even with eyes open; worse when eyes are closed; inability to walk across the floor without support; while sitting or lying down all ordinary movements of the legs can be performed; little or no muscular wasting; sensibility in legs to touch, pain, and temperature normal; muscular sense normal; superficial reflexes normal; no ankle clonus; patellar reflexes markedly increased. There was talipes varus in all the cases, also lateral curvature of the spine. There was nothing abnormal in the upper extremities, except that in the youngest patient the hands are claw-shaped, with marked wasting of the thenar and hypothenar eminences and also of the interosseii. Pupils react normally; marked horizontal nystagmus; all organs of sense normal. There was little if any change of speech, and the intelligence was unaffected.

An interesting discussion followed.

A Luncheon Party.—By invitation of Dr. Bucke, Medical Superintendent, the members of the Association paid a visit of inspection to the London Asylum for the Insane. After being conducted through the buildings and grounds the attention of the visitors was directed to the recently constructed sewage system, which is giving excellent satisfaction. An elegant lunch was afterward served.

Alcohol for the Insane.—In the course of his address after lunch Dr. Bucke said that when he came as superintendent to the Asylum, seventeen years ago, they were in the habit of using $4,000 or $5,000 worth of alcoholic liquors in the dispensatory department each year. His predecessor thought alcoholic stimulants were absolutely indispensable for the patients. The experiment of stopping it was tried, but the death rate increased and they fell back on the old practice. In his first year as superintendent the liquor bill was, however, reduced to $600 a year. For twelve years no alcoholic liquor has been used in the Asylum, and the death rate has been reduced from five to 4.3 per cent., and the recoveries have been over three per cent. more. For ten years restraint has been discontinued in the care of new patients. They found the employment of the patients about the grounds and buildings very beneficial. The good effect of amusements, the introduction of music, and the training of an orchestra were referred to as most helpful to the patients. During last season they had 110 evenings of amusement, of which 44 were dances, 25 "at homes," 18 lectures, and the remainder concerts. The buildings are kept in a thoroughly sanitary condition, and among the many hundreds of patients there was comparatively little sickness.

A number of interesting addresses followed, indicating the pleasure the members of the Association felt in thus being afforded an opportunity to visit and inspect one of the largest asylums in Canada.

Evening Session.

Dr. Praegar, of British Columbia, presented the report of the Committee on Medical Registration. He recommended a scheme by which a physician of one Province may practice in any other through the agency and authority of a Dominion Medical Examination Board, a supreme organization for Canada. The report also suggested co-operation between England and Canada.

Dr. A. B. McCallum, of Toronto, said he had little hope of securing such a result in this generation. Medical practice came under Provincial jurisdiction, and some universities did not give medical degrees. While there was such a difference of views in Quebec as to the curriculum, so long would the present anomaly in that province exist. The report would give the privilege of conferring degrees to Laval and other Quebec universities while withholding it from some in Ontario. He suggested that the universities send delegates to this Association to devise a united plan of action. The matter was then by motion allowed to lay on the table for another year.

Some Peculiar Forms of Sleep or Allied Conditions.—Dr. T. Wesley Mills, of Montreal, read an interesting paper on this subject. He referred to published reports of people going into trances or long sleeps, which at one time he could not believe, but with age and experience he was forced to conclude that there were good foundations for most popular beliefs or delusions. He had watched the hibernating habits of a woodchuck for four years. He had also studied three or four authentic cases that had occurred in Canada, the subjects of most of them being weak-minded, with often hereditary symptoms of insanity. Some of the individuals slept for months or years, some of the circumstances being similar to the case of the woodchuck—the taking of food and the attending to calls of nature at regular intervals, in one case thirty days, during the term of sleep of hyperbernation, six months every year for thirty years. In the case of one, an old woman, who died at the age of seventy, one third of her life was spent in a stupor. She asked for a drink of water shortly before her death, which was the second time she had broken silence for thirteen years. As death approached she recovered partial consciousness, and manifested affection to one of the nurses and spoke more frequently.

Dr. A. B. McCallum, of Toronto, inquired if Dr. Mills wished to be taken as a believer in Rip Van Winkle. He pointed out some radical differences in the symptoms of the different cases, and argued that while they might have arisen from analogous causes, the hybernation of the animals was attended with a different condition of the nerve cells. The subject was interesting and he considered the paper a highly interesting one.

Dr. R. A. Reeve, of Toronto, followed with an instructive paper on "Ophthalmic Memoranda," and Dr. D. C. Meyers, of Toronto, with a paper on "Multiple Neuritis."

Election of Officers.—The report of the Committee on Nominations was presented and the following officers elected: *President*, Dr. Harrison Selkirk, of Ontario; *General Secretary*, Dr. Starr, of Toronto; *Treasurer*, Dr. Small, of Ottawa; *Vice-Presidents*, For Ontario, Dr. Eccles, of London; for Quebec, Dr. Stewart, of Montreal; for New Brunswick, Dr. Christie, of St. John; for Nova Scotia, Dr. Muir, of Truro; for Manitoba, Dr. Spencer, of Brandon; for Northwest Territories, Dr. Newburn, of Lethbridge; for Prince Edward Island, Dr. Taylor, of Charlottetown; for British Columbia, Dr. McKecknie, of Nanaimo; *Local Secretaries*, for Ontario, Dr. Olmstead, of Hamilton; for Quebec, Dr. Anglia, of Montreal; for Nova Scotia, Dr. McKeene, of Cowe Bay; for New Brunswick, Dr. McLaren, of St. John; for Prince Edward Island, Dr. Johnston, of Charlottetown; for Manitoba, Dr. McDermitt, of Winnipeg; for Northwest Territories, Dr. Calder, of Medicine Hat; for British Columbia, Dr. Walker, of New Westminster.

The next meeting of the Association well be held in August, 1894, at St. John, New Brunswick.

A complimentary resolution was unanimously carried, expressing the appreciation by the members of the Association of the hospitality they had enjoyed during the meeting in London.

Therapeutic Hints.

Neuralgia. — Hypodermic injection of the following solution has been found valuable by Crocq. One cubic centimetre is employed at first and gradually increased to three.

Phosphate of soda	gram. 2
Alcohol	" 5
Sterilized water	" 100

Hydrotherapy in all possible forms of chronic nerve troubles gives extraordinarily favorable results. There are few remedies which have an equally powerful influence upon the nervous system.—Erb.

Sodium Phosphate in two per cent. solution, with defibrinated blood, was used for transfusion in a case of pernicious anæmia, with favorable results.—Evans.

Basedow's Disease.—Intestinal antiseptics. Tincture of strophanthus as a vaso-motor tonic, restricted meat diet, fermented milk substituted.—Thomson.

Impacted Fæces can be removed by galvanism applied within the rectum, when other means fail.—Soutakis.

Headache.—When the pain is frontal and close above the frontal sinuses, dilute nitro-hydrochloric acid in small quantity, added to a moderate dose of antipyrin or other analgesic, subdues the pain more rapidly than any of these drugs separately.—Gillespie.

Lupus Erythematosus.—Iodoform and medicinal soap, each ten centigrammes, taken in pill form twice daily, may do good.—Besnier.

Methyl Violet given in capsule has been found curative in certain cases of cystitis.

Mercurial Flannels which give off mercurial vapors have been advocated in the treatment of syphilis.

Gonorrhœa.—

Bismuth subnit.	gram.	5
Quinine sulphat.	"	1
Aquæ rosæ.	"	130

Use as injection.

—HAMONIC.

Lichen planus, with intense pruritus and nerve disturbances, has been relieved by Jacquet with the hot douche.

Late Ocular Manifestations of syphilis are treated by sub-conjunctival injection of one drop of a one to one thousand solution of corrosive sublimate.—ABADIE.

Otalgia.—

Menthol	ʒj.
Camphor	ʒj.
Liquid vaseline	ʒj.

Instil into the ear several times a day.

—*Medical Press.*

Treatment of Diphtheria.—

℞. Phenic acid	ʒij.
Salicylic acid	ʒiij.
Benzoic acid	ʒj.
Proof spirit	ʒiv.

A tablespoonful in two quarts of boiling water to steam the room of the patient. It should be renewed every three hours.

—*Medical Press.*

Summer Diarrhœa.

℞. Bismuth subnit.	ʒ ss.
Tr. opii	gtt. xx.
Syr. ipecac,	
Syr. rhei arom. āā	ʒ iv.
Listerine	ʒ ss.
Mist. cretæ	ʒ j.

M. Sig. :—Teaspoonful once in three or four hours for a child ten or twelve months old.

—ROBERTS.

Non-bitter Quinine.—

Quinine sulph	gr. xv.
Acid. sulph. dil	♏ xv.
Spr. menth. pip.	ʒ ijss.
Sol. saccharin. saturat.	ʒ v.
Aquæ dest.	ʒ vj.

—*Medical News.*

Chronic Dysentery.—Half a tumblerful of a two per cent. solution of lactic acid twice daily, gave good results after other means had failed.—LOJKIN.

Favus.—

Naphtol beta.	gram.	12
Balsam of Peru	"	1
Vaseline	"	100

Acne.—

Lac. sulphur,		
Starch āā	gram.	5
Green soap	"	10
Axunge	"	20–30

Apply a thin layer for an hour or two at night to half the face at a time. Wash off with hot water, and then powder the surface. After a week or two apply an ichthyol ointment.

—SCHWIMMER.

Blennorrhagic Cystitis.—From all points of view, nitrate of silver possesses an incontestable superiority over other therapeutic agents.—DESNOS.

Psoriasis.—The application of chrysarobin in chloroform (1 to 10) was found to be the most successful treatment.—HAUMER.

Oil is preferred by Burlureaux to all other excipients for the subcutaneous injection of remedies. Besides being readily digested in the skin, it is in itself a food which can only be beneficial.

Iodoform, with its double action of anæsthesia and analgesia, is highly praised by Mosetig in the treatment of burns.

Beware of infecting the posterior urethra by too forcible injections.—BROCQ.

Intestinal Flatulence.—

Powdered coriander Powdered peppermint Powdered vanilla	each, 5 parts.
Powdered senna	1 part.

A teaspoonful 2 or 3 times a day.

—MONIN.

Chronic Tonsillitis —

℞. Acid. tannic.	gr. 15
Tinct. iodinii	gtt. 2
Aquæ	ʒ 6
Glycerine	ʒ ½

M. Sig.:—Tablespoonful every three hours.

Neuralgia.—

℞. Acetanilid	gr. 1
Quinine	" 1
Cocaine	" 1/10

For one pill. Give every hour.

Asthma.—

℞. Ether	ʒ 1
Oil of turpentine	ʒ 4
Benzoic acid	ʒ 4
Balsam of tolu	ʒ 2

To be inhaled during an asthmatic attack.

—*The Doctor.*

Simple Remedies for Constipation.—A tart apple eaten before breakfast and followed by a glass of cold water, with a regular time for morning stool, preferably within one hour after morning meal. Oftentimes a simple glass of cold water, to which is added a pinch of common table salt (sodium chloride, five grains or less), drank before breakfast, will produce the desired effect.

Aperient for Occasional Constipation.—Occasional attacks of constipation are often promptly relieved by a pill composed of one-half grain of calomel, two grains of extract of aloes, and one grain of extract of hyoscyamus, followed in the morning before breakfast by two drachms of sulphate of soda in a tumblerful of hot water. It may be necessary to follow this treatment for three or four mornings with a Seidlitz powder on rising.

An Excellent Pill for Chronic Constipation.—

℞. Aloinæ	gr. iv.
Strychninæ sulph.	gr. ½
Ext. belladonnæ	gr. i½.
Pulv. ipecac.	gr. vi.

Mix and divide into twelve pills, one nightly.

Coughing made Easy in Bronchiectasis and Phthisis.—Large cavities are often easily emptied by taking advantage of gravity and coughing with the head and chest at a downward angle. The patient can lie on bed or lounge, lean over the side, resting on the hand and lower the head as low as convenient during the coughing spell. The pocket of secretion is thus inverted, and the period of paroxysm materially lessened. Mr. N. P. Willis, the poet, who thought out this method for himself, called it "coughing down hill."—DR. H. D. DIDAMA, Onondaga, N. Y.

Treatment of Acute and Chronic Rheumatism.—For the last six years M. Ruel has treated externally only acute or chronic rheumatism. Compresses steeped in the following solution are applied twice a day to the articulation, and covered with oil-silk so as to prevent evaporation :

℞. Salicylic acid	ʒ v.
Proof spirit	ʒ iij.
Castor oil	ʒ vij.
Chloroform	ʒ iv.

When the applications are properly made the salicylic acid appears in the urine twenty-four hours after.—*Medical Press.*

Recent Coryza.—

℞. Morphine hydrochlorate	gr. 2
Pulv. acacia	ʒ 2
Bismuth subnitrate	ʒ 6

Use as snuff.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

END OF THE LONG VACATION—INFECTIOUS DISEASE IN LONDON—SCARLET FEVER AND DIPHTHERIA—THE CHOLERA—SIR WILLIAM JENNER'S VOLUME OF LECTURES AND ESSAYS—ZOLA IN LONDON—DEATH OF THOMAS HAWKSLEY, C.E., F.R.S.

SATURDAY, September 30, 1893.

THE end of the vacation has arrived. On Monday the medical schools open for the winter session, some of them maintaining the time-honored "Introductory Lecture," while others have embraced a new departure. In anticipation of this event most of the teachers have been in town several days, and the few who remain away to the latest hour will turn up this evening or Monday morning. Of course there has been no lack of doctors in London during the vacation. An exodus of teachers and well-to do or fashionable physicians makes little impression on the array of practitioners who do most of the work—in fact, it no more than corresponds with the flitting of the richer classes. But the return corresponds with a livelier feeling in professional circles and the hope, if not the expectation, of improved practice. Following closely on the schools the medical societies will soon be beginning their sessions, and we shall be plunged into the excitement of free discussions and full work for the winter evenings.

There is an unusual amount of infectious disease in London just now, and the Asylums Board is feeling the pressure more severely than perhaps at any time previously. A new hospital is being built at Tooting, and two others, it is hoped, will be begun at once, as well as a fresh convalescent hospital, a few miles out. I am informed that the cases of fever continue to come in from all districts, and last week every parish contributed to the total of 3,153 under treatment. Only the most urgent cases can be admitted as the discharges take place. Thus about sixty cases per diem are provided for, while the notifications have run up to 400 per diem. One day indeed the discharges only permitted the admission of 35 urgent cases of scarlet fever. It is this disease which is crowding the hospitals. Many of the cases are mild, but the need of isolation, the impossibility of many obtaining it in their homes, and the growing confidence of the people, combine to increase the pressure faster than has been expected. Diphtheria furnishes fewer cases, but their mortality is much higher. The mortality of scarlet fever in hospital cases seems to have somewhat declined, but this is probably because a larger proportion of milder attacks are now removed to the hospitals, and the fact suggests further pressure on the hospitals in future epidemics.

Cholera has been still kept at bay during the past week. On Thursday afternoon the Local Government Board reported that no death had occurred in England and Wales during the preceding twenty-four hours. Last night the official bulletin announced that only one death at Hull and one at Great Yarmouth had occurred. One or two suspicious cases elsewhere will be examined by experts. A steamer from Cronstadt arrived off Gravesend with one case, which was promptly removed to hospital, and every precaution taken, with the result that it has not spread. The expert could not distinguish it from true cholera.

Sir William Jenner's promised volume has appeared. It is entitled "Lectures and Essays on Fevers and Diphtheria, 1849 to 1879," and consists entirely of previously published matter. There is no attempt to bring the contributions down to date, and they must consequently be read as representing the author's work and opinions at the time they were first issued. In some respects this will be an advantage to the younger men who are too apt to confine their views to the latest exposition of facts, and so have very indefinite notions as to the historical development of the prevailing ideas and methods. Most of the work consists of the learned author's contributions on fevers, opening with those in the *Edinburgh Monthly Journal* of 1849–50 on the "Identity or Non-Identity of Typhoid and Typhus Fevers." The subject is continued in the paper submitted to the Royal Medical and Chirurgical Society about the same period. Appended to this is the debate that ensued, and which will be read with interest by many. Sir William Jenner was by no means the first to suggest the differentiation of these fevers, and he makes no claim to priority. He, however, did so much to establish the doctrine that many have credited him with the discovery of what had been propounded before. He is detailing his own work and conclusions and does not profess to go into the history of his subject. He is, therefore, not obliged to discuss the origin of the doctrine he espoused, and indeed he mentions some observers to whom he was indebted. I think, however, it would have been interesting to readers, and honorable to the author, to have expressed by way of note or supplement, his views on the efforts of those of his predecessors and contemporaries who saw more or less clearly and taught fearlessly the truth of the doctrine he succeeded in establishing. In the Gulstonian Lectures of 1853, Sir William Jenner gives a charming account of the manner in which the differentiation of these and other fevers and the exanthemata was gradually brought about during the last two centuries. The remainder of the volume is occupied by reprints on "Croup and Diphtheria," 1861 and 1875. These more recent contributions would have to be little, if at all altered, if the author decided to edit them so as to express his present views. Altogether this handsome volume is a goodly addition to the library; but as it consists only of reprints of articles with which I was familiar I cannot indulge in the ecstatic gratitude to the author which some of your contemporaries here already express.

Writing of books, I may mention that London authors have been all the week fêting Zola, and, of course, some doctors think they must read something of the great French novelist. His "Doctor Pascal" has therefore a chance for a run. The writings of this realist some years ago brought a prosecution on the publisher of a translation, but his talent has enabled him to attain the highest distinction in his own country, and now English novelists honor him as a representative of French literature; but I wonder how many allow their daughters to peruse his works. The death of Thomas Hawksley, F.R.S., may be mentioned here, although he was not a medical man. He was an engineer, and as such the designer of many sanitary undertakings. Water supply was a great specialty with him, and it is said he constructed more than one hundred and fifty waterworks. Some of these were enormous undertakings. He adds one more to the many scientific men, personally known to me, whose deaths I have had occasion to report, and whose place it will not be easy to fill.

TYPHOID FEVER—ITS DE NOVO ORIGIN.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: The article in the MEDICAL RECORD of September 9th, by Dr. Hubert Work, on "Typhoid Fever, Its De Novo Origin," calls to mind a case that occurred in the mountains of Montgomery County, Va., some years ago. I have no notes on it and will not attempt to detail the symptoms. Suffice it to say its cause was typical, and ended in the recovery of the patient, a man under middle age. Among other characteristics were great prostration, continuous delirium for days, and intestinal hemorrhage. I want to call special attention to the circumstances that preclude any possibility of contagion, or the use of contaminated water, certainly any water infected with special typhoid germs. This man lived on the mountain side, the approach to his house or cabin

being so steep that one had to tie his horse and climb several hundred feet. The history given was that he had been very closely at home and had not been out of the neighborhood for weeks. The water-supply was from a mountain spring. Drainage was apparently perfect, and he breathed the purest of mountain air. At the time there were no other cases in the neighborhood. The family continued to use the spring water, and no other cases developed.

I have been puzzled over and over again to understand why we have cases of typhoid fever at all in the mountains, if it originates almost exclusively from the water-supply. This case, however, furnished less explanation than any I have ever met as to its origin. There is certainly a defect somewhere in the reasoning of the germ-theorists and bacteriologists, who would confine us to a specific cause for everything. Given pure spring water, mountain air, and perfect drainage, where do the germs come from that will cause a sporadic case here and there in a family, when there has been no possibility of previous contagion and no further cases develop, although wife and children continue to drink the same water and breathe the same atmosphere? This is no unusual history in this section.

Yours truly,

W. R. CUSHING, M.D.

DUBLIN, VA., October 6, 1893.

IMMUNIZING FOR YELLOW FEVER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: The immunizing method of Dr. Murray, given in your number of October 7th, seems to me quite correct. However, I should propose the following modifications; you will find them in perfect accord with the idea of Jennerean vaccination, which certainly should guide us. They are corroborated by my own experiments with scarlet fever:

1. Instead of carrying the patient to the infected region, take the infection to the patient; that is, inoculate him with the blood-serum of a partially immune subject of yellow fever, a half- or quarter-blood negro, for instance, and inoculate him a second time, forthwith, with a white blood-serum perfectly immune, that is, belonging to a white subject who has had yellow fever.

2. Or; wait until frost appears, which always modifies the virus, or expose the infected blood-serum to frost, before inoculating it, and follow this at once with a second inoculation of immune blood-serum.

Sincerely yours,

ALBERT S. ASHMEAD, M.D.

45 MACDOUGAL STREET, NEW YORK,
October 7, 1893.

Athletics and Appendicitis.—Dr. C. F. Crehore offers, in the *Boston Medical and Surgical Journal*, a suggestion accounting for the present prevalence of appendicitis. Looking beyond food and clothing as etiological factors, he finds in one particular a condition of recent origin which may possibly explain, in some degree, the frequency of the disease. This is "the comparatively recent and very general introduction of methods of physical culture and the resultant growth of athletic sports. Calisthenics, as generally taught, appear harmless enough; but many of the postures involved cause a good deal of abdominal pressure. It goes without saying that where an overloaded colon is subjected to such pressure, a portion of the fluid matter entering from the ileum might be forced downward into the appendix and be the cause of serious disturbance. The danger from such a contingency would naturally be increased in the more violent gymnastics and the rougher athletic games—as baseball or foot-ball, rowing, polo, and the like. The position of the modern bicyclist when riding, seems very favorable to an injury of that description."

New Instruments.

AN INSTRUMENT FOR THE RHYTHMICAL EXERCISE OF THE OCULAR MUSCLES—THE PHOROTONE.

BY H. MCI. MORTON, M.S., M.D.,

PROFESSOR OF CLINICAL OPHTHALMOLOGY IN THE COLLEGE OF PHYSICIANS AND SURGEONS, MINNEAPOLIS, MINN.

EXERCISE of the ocular muscles in certain forms of asthenopia has, on this side of the Atlantic, been recognized for some time as a most valuable therapeutic agent. It was until lately the practice to place before the eye a prism of certain strength, with its apex toward the weak muscles, allowing it to remain in this position for a few minutes, with the eyes fixed upon a candle-flame twenty feet distant. It is an enigma to me that the illogical and unscientific principles underlying this plan were not pointed out much sooner than has lately been done by Dr. Savage, of Nashville. This method excited and fatigued, rather than exercised, the insufficient muscles. An athlete in the development of his biceps does not *hang* upon a pair of parallel bars, but, by *alternately contracting* and partially or completely relaxing, seeks to give strength to the organ.

Before the article by Dr. Savage appeared in the *Ophthalmic Record* these thoughts had very forcibly presented themselves to me, and while practising this

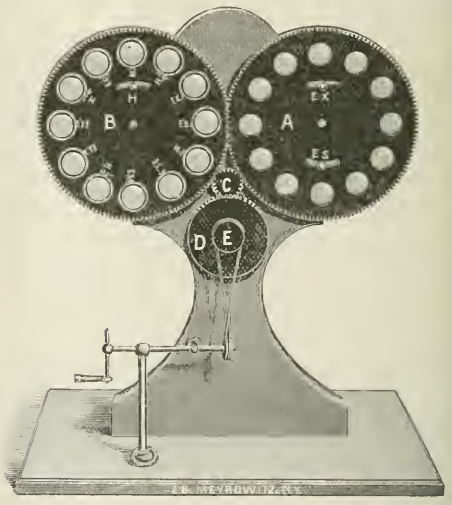

FIG. 1.

method I have for some time been impressed with the primitive as well as awkward manner of its application. So far the only manner of applying these exercises is as described by Dr. Savage:

"The prisms to be used may be from one-half degree to four degrees, and one should be placed before each eye. The treatment should be commenced with the weaker prisms; and, as development of the muscles advances, the stronger should be brought into use. The object looked at should be a candle, lamp, or gas-jet, fifteen to twenty feet distant. The prisms before the eyes, the image in each of the eyes is displaced out and the guiding sensation calls quickly into action the interni. After five seconds the interni must be allowed to relax for the same length of time (five seconds), which is *readily effected by lifting the prisms up and allowing the light to enter the eyes uninfluenced.*[1] The guiding sensation at once causes the relaxation to take place, so that the yellow spots may receive the image. At the end of

[1] Italics mine.—H. MCI. M.

this five seconds the prisms are again dropped before the eyes, and the interni again contract."

By this method it is very difficult to have prisms of gradually increasing and diminishing strength held before the eye, and also to regulate the periods of exercise and rest. It also takes time, and if practised upon a number of patients in one day gets very wearisome to the oculist. Having fully appreciated these disadvantages in the past eight months, I attempted, and think have succeeded in overcoming them by the instrument

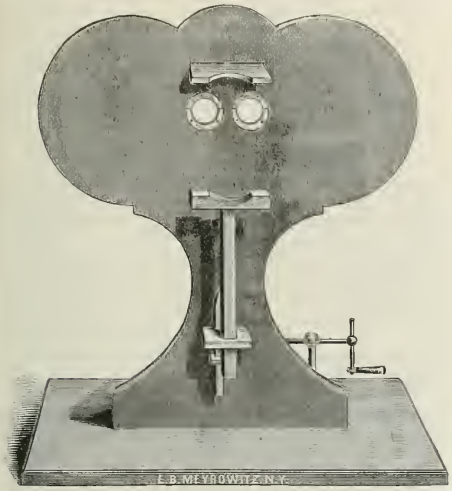

FIG. 2.

which I shall describe, and the front view of which is illustrated in Fig. 1. The patient may, by simply turning the handle, exercise his muscles without the attention of the oculist. By a simple matter of turning the small knob at the points marked Es, Ex, and H, any set of muscles may be exercised, or all, at the same revolution of the disks. The instrument consists of two revolving disks, A and B, propelled by a small cog, C, which in turn is moved by the quarter cogged wheel, D, connected to the shaft by a belt. The disk B (or "exercising disk") contains twelve prisms, *i.e.*, three sets of four prisms each, so arranged that one set exercises the interni and one the externi; another, the superior and inferior recti muscles. Back of this disk is another one (see Fig. 4), containing eight prisms, so arranged that by a movement of the small knob at H, the esophoric and exophoric prisms in B are neutralized, thus permitting exercise of the superior and inferior recti. The disk A contains

FIG. 3.

FIG 4

openings corresponding to those in disk B, but without prisms. Back of this A disk are two disks, G and H (Fig. 3), containing neutralizing prisms. Thus by moving the knob at Ex, all the prisms in B are neutralized, but those to exercise the interni. The same by the knob at Es, thus working the externi. By allowing all the neutralizing disks to be out of use, all of the recti are exercised alternately. Thus when working one set of muscles, we have one period of exertion to two of rest, which I think a proper ratio. If desirable, instead of having all of the exercising prisms in B, we may divide the strength between A and B. Thus, instead of having one three-degrees prism, base out in B, we may have two of one and one half degrees, base out, in each A and B. It might be suggested that a disk so arranged over B as to cut off all openings but those to be used would answer better than neutralizing prisms, and be cheaper, but this would be equivalent to closing the eyes in the two rest periods, following upon the exercise period, and, as Savage says, "When the eyes are closed, relaxation is slow to take place, and is rarely completed at the end of sixty seconds." Thus it is essential that the eyes look at the distant object (the candle-flame at twenty feet) after they have fused the double image, in order to immediately relax them. It is obvious that continuous movement of the disk is not desired, and a period of rest is obtained by having the wheel D quarter-cogged only, so that during three-quarters of the time it is in motion, C is at rest. The patient, by steadily turning the handle, has uniform periods of contraction and relaxation of the muscles. In the back of the instrument (see Fig. 2) are two clips to hold supplementary prisms if desired, also a movable chin-rest, which permits adjustment to suit the patient. Disks containing cylinders for exercising of the obliques may be added if desirable.

I feel greatly indebted to Mr. E. B. Meyrowitz for much valuable advice and assistance, many points of improvement being suggested by him.

51 AND 52 SYNDICATE BLOCK, MINNEAPOLIS.

A NEW HOLDER FOR SIMS'S SPECULUM.

BY B. H. DAGGETT, M.D.,

BUFFALO, N. Y.

VAGINAL specula are older than the everlasting hills, and their origin is enveloped in the mists of antiquity. Saranus and Paul of Ægina allude to them, and they have been found in the ruins of Herculaneum and Pompeii. The fame of their discoverer and patentee is shrouded in the dust of centuries; his name is unknown, unhonored, and unsung. The improvements devised by Récamier and Fergusson gave an impulse to the evolution of tubular specula, and their use for caissoning the vagina became general within the past century.

Following the introduction of stovepipe specula, came an epidemic of valvular peek-a-boos, fearfully and wonderfully made. Through the open spectacular way maintained by these instruments, the assault upon the innocent, retiring womb began with puncture, incision, cauterization of the os tincæ, and was carried onward through the via vitæ, fraying the fetal abode with sound curette, and drenching it with medicament.

No man can estimate the amount of injury and suffering caused by sounds, and cylindrical and valvular specula in the hands of the injudicious, indiscriminate, gynecological tinkerer. The internal viscera, being endowed with a minimum degree of sensibility to the pain of traumatism, and their abnormal processes being generally sluggish and insidious in their course, these storm-signals are obscured and overlooked, until the skilled hand of the specialist reveals the presence of intrapelvic disease or the nerve counterfeits of uterine disorder. Says Van de Warker: "The misery inflicted upon women by these instruments is an unwritten chapter in human suffering."[1]

Joseph Price affirms that cylindrical and valvular specula do harm in the hands of the inexpert, and the expert do not need them; that if ocular examination is to be made, or local treatment is indicated, the lateral position and the Sims speculum should always be employed.

Matthew D. Mann always employs the lateral position and the Sims speculum, except when making bimanual examinations and performing certain operative procedures. His writing, teaching, and practice confirm this

[1] MEDICAL RECORD for April 18, 1893.

statement. These references suffice to indicate the opinion of gynecologists concerning the use of valvular and cylindrical specula.

The impediments which bar the general employment of the lateral position and the Sims speculum may be readily overcome, and are named as follows:

1. The want of tact and experience in the necessary manipulation. The remedy is obvious.

2. The necessity of a proper posture, as the Sims speculum will not provide or maintain an open way to the vaginal depths, except a depressor is also used, or the pelvis be raised sufficiently to relieve visceral pressure by gravitation. To obtain visceral prolapse the patient is tilted from the lateral to a semi knee-chest posture, the body being supported by the knees, left thigh and chest, and the lateral pelvic plane being at an angle of forty-five degrees with a horizontal line. This position gives all the benefits of the lateral and knee-chest postures without the discomfort of the latter. The KNEE-THIGH CHEST posture is illustrated in Fig. I.

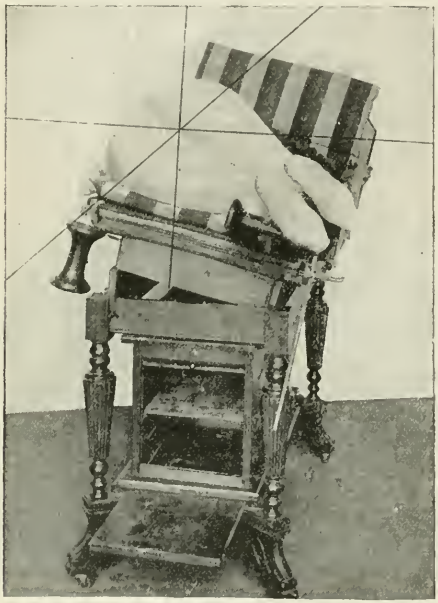

FIG. I.

3. The holding of the speculum, which requires the presence of a skilled assistant, the use of one hand of the operator, or a self-retaining instrument. The majority of physicians are not supplied with assistants, neither can they hold the speculum and at the same time comfortably and satisfactorily apply treatment.

To popularize and bring into general use the Sims speculum, a self-retaining attachment, simple in construction, readily applied and effective, is essential. A new holder is described and illustrated in the following paragraphs and Figs. II. and III.

The various parts of the speculum and holder, as shown in Fig. II., are designated by numbers for convenience of description: 1 is a Sims blade; 2 is a thumb-screw for setting this blade at various angles; 3 is a ratchet or notched lever, and attached by a joint to the blade; 4 is a sleeve for receiving the lever; 5 is a spring catch; 6 is a double spring lever; 7 is the cross-bar.

The blade is first introduced and turned up against the perineum. The double lever is placed over the sacrum with its projecting end under the outside clothing, or over it, as is most convenient, and the cross-bar rests upon the round of the buttocks, which become the fulcrum. The lever (3) is then introduced into the sleeve, and traction is made upon the blade by the finger pressing upon the thumb-screw (Fig. II.), and the thumb pressing upon the end of the upper spring under the catch; thus the two parts of the double spring are approximated sufficiently to produce the desired degree of tension. The ratchet catches and holds the lever wherever set. The double lever rests upon the back over and above the sacrum, the cross-bar being supported by the round of the buttocks. The instrument is removed by freeing the lever (3), either by pressing open the spring (5) or turning the double lever to either side.

FIG. II.[1]

Fig. III. illustrates the same appliance for holding the speculum, except that there is attached to the Sims blade the Thomas depressor. With the patient postured in the lateral position upon a horizontal plane a depressor is essential. If the patient be postured in the knee-thigh-chest or exaggerated Sims position, the depressor is not required. This mechanism is applied with facility, and does its work perfectly.

With this speculum and the patient postured in the knee-thigh-chest position, inspection and treatment are executed with facility, ease, and comfort, and the operator will have no desire to return to the usual methods in vogue for intra-vaginal treatment and ocular examination.

Dr. Charles P. Noble says that "Gynecologists must impress the general practitioner with the fact that the diseases of women are largely preventable, and make him feel his responsibility both as to their production after the present methods of practice, and as to the possibilities of their prevention after improved methods.

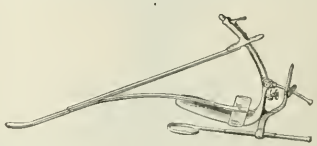

FIG. III.

"When the family physician realizes that it lies within his power very largely to prevent disease among women of the families committed to his care, his sense of moral obligation will spur him on to do his full duty in this matter. When that day comes the universal prevalence of disease among women will cease to be a reproach to preventive medicine."

258 FRANKLIN STREET.

Hippuric Acid as a Diuretic.—This acid, obtained from the urine of the cow, is a favorite diuretic with many French practitioners. Dujardin-Beaumetz prescribes it combined with lime.

Hippuric acid	25 grammes.
Milk of lime sufficient to neutralize it.	
Simple syrup	500 grammes.
Essence of lemon to flavor.	

Four to six tablespoonfuls daily. As before mentioned it is excreted in the urine as benzoic acid.—*Provincial Medical Journal.*

[1] Patent applied for.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending October 7, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	35	9
Scarlet fever	45	0
Cerebro-spinal meningitis	4	5
Measles	42	1
Diphtheria	129	37
Small-pox	6	3
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

The Duty of the State to the Insane.—In the October number of the *Popular Science Monthly*, Dr. Andrew McFarlane, of Albany, defines this to be as follows: 1. Separate treatment of the curable and incurable under one medical executive. 2. For the curable, true hospital treatment, with all the medical skill, nursing, and care, regardless of expense, which the character of the case demands. 3. Simple, humane, custodial care at moderate expense, for the incurable.

In a brief historical review of the care of the insane by this State since 1843, he shows that the principle of separate treatment of the curable and incurable had always been observed, until recent legislation, commendable as it is in other respects, has directed that all the insane of a given district be grouped together in one institution. A remnant of the principle remains in the provision for a larger allowance for care during the first three years after commitment, this being $4.25 per week, against $2.50 per week after that period. He believes, however, that the interests of the recent and curable cases will suffer from the influx of so many incurables who have until now been confined in county institutions. He thinks the time ripe, therefore, for the establishment of an annex to each State hospital, which shall be conducted on the same plan as a general hospital, in which vigorous measures shall be adopted for the cure of all promising cases. He regards this as a better plan than the establishment of entirely separate hospitals for this purpose, or than pavilions or wards attached to general hospitals. Special medical skill, experienced nurses, and means of mental diversion and occupation, such as are required in many cases, are already to be found at the State hospitals, while they could hardly be obtained elsewhere, unless perhaps in the very largest centres, where alone specialists on mental diseases are to be found.

The advantages to patients, nurses, and physicians in the State hospitals would, he believes, be very great. The physicians are, under the plan of management now in vogue, handicapped by many extraneous duties. Each has over two hundred patients under his care, and has to provide means for their entertainment and employment, besides recording clinical histories, and attending to correspondence and visitors. The benefit to the patients to be derived from the removal of those who have become recently insane from the chronic cases is apparent. The derisive remarks of the latter, their delusions, and their offensive words and actions, frequently aggravate the condition of the new-comer, adding dread or horror to his melancholy, or strengthening his delusions and morbid fancies. In a State hospital containing a thousand patients, there are now a medical superintendent, five assistant physicians, and a woman physician. Not more than a hundred, and probably only sixty, of the patients are curable. The remainder require kind custodial care only, and two or three physicians would ordinarily be sufficient for their needs. The other physicians could thus be left free to devote themselves to the recent and curable cases, who should be placed in small home-like cottages, containing a separate room for each patient, and provided with every facility for active treatment. Rigid physical examinations should be made, including investigation of the blood and excretions, and the use of the sphygmograph and ophthalmoscope; and baths of all kinds, massage, and electricity should be included in the treatment available. Under such circumstances, a hope of increasing our knowledge of the nature and best means of treatment of insanity might be reasonably cherished. The nurses for these cases should not be limited in number. They should be selected from the best of those already employed in the institution, and should have associated with them several nurses trained in general hospitals. This association and the importance of the work assigned to them would arouse a better spirit among the nurses in hospitals for the insane. He believes also that the medical spirit would be more likely to be kept up by the physicians in those hospitals. He quotes in support of this proposition from the transactions of the British Medico-psychological Society, in reference to the best method of keeping up the medical spirit in asylums for the insane. The following conditions were regarded as essential: 1. Classification—the curable from the incurable. 2. Hospital treatment for the curable. 3. Trained attendants. 4. More physicians and a rearrangement of duties.

He regards the paying of $4.25 per week for the first three years of a patient's stay in the hospital, and $2.50 afterward as a double injustice. The cases unmistakably incurable on admission, of whom there are many, do not require any unusual care, and the curable cases do not receive it, in spite of the extra allowance, because no special provision is allowed by the plan of management of the hospitals. The only result from the arrangement, then, is to raise the general standard of care. He urges that economy is best observed by making every effort to cure all promising cases. These come as a rule from the strong, productive classes, and are temporarily overcome by the effect of ill-health, trouble, care, or overwork; the incurable cases, on the other hand, are often mental incapables to start with, the victims of degeneracy in their ancestors. The average duration of life of such an incurable is twelve years, and the cost of his maintenance about $5,000. To prevent as many as possible from lapsing into incurability becomes therefore true economy. The cost of maintenance for each curable patient under the plan he suggests, would, he believes, be not more than $10 a week. If eighty patients, in a hospital containing a thousand, required this treatment, and the remainder cost each $3 weekly, the total weekly cost would be $3,560. At present the average weekly cost per patient is $3.50, or $3,500 per thousand. In conclusion, he urges that the plan is already in successful operation in Heidelberg and Strasburg, and is contemplated in Scotland.

Life Insurance Medical Recommendations.—A life insurance company is a sponge. It belongs to the octopeda or millepeda. It has a head-centre, grasping arms which extend to immense distances, agents as suckers and medicine men as tentacles or feelers. Through its agents it sucks into its colonial meshes such an enormous surplus of nutriment, that it permits its chief sucker to retain fifty per cent. of the premium blood drawn from the veins of each newly captured victim; while its corpulent head-centre appropriates an amount of this same vital fluid which, if transmuted into coin, would equal from ten thousand to seventy thousand ducats annually. The tentacles decide as to the sanitary condition of the victims. They receive scanty pabulum for their services, which are, or should be, of the greatest value. The judgment of other medical men (especially those of recognized prominence) as to the ability and fitness of the tentacles is constantly sought by the head-centre. The opinion desired may be of immense importance; it may insure success or ward off disaster; but the insurance octopus sponges the

opinion; he disgorges no ducats; he emits not even a worthless thank. He propounds in a circular a series of questions as to the age of the tentacle whom he proposes to employ, when and where he was educated, his qualifications as a diagnostician, the acuteness of his senses, especially his hearing, the amount of his business, his shrewdness, his mental and moral integrity, his ability to resist the allurements of the willing victims and the anxious sucker, his social and professional standing; and then he craftily pretends that the valuable time spent in answering fully these, and many more searching questions, is for the sole benefit of the proposed tentacle, while at every moment he knows that the pretence is a false one, and employed only to excuse sponging the wished-for information from the meek and complaisant physician. More than this. He is guilty of the contemptible meanness of promising that if the friendly tentacle shall be maligned and betrayed, the gratuitous betrayal will be guarded sacredly as "confidential."—H. D. Didama, M.D., "Transactions of the New York State Medical Association," vol. 1892.

Startling Effect of Animal Extracts.—Professor Solomon Muhlbach reports the following case (*Medico-Financial World*). J. L. S——, aged twenty-two when first treated in 1878. A native of Boston. This young man was a slender, consumptive-looking fellow, whose three brothers, an uncle, and aunt had died of phthisis. He was a close student, devoting his whole attention to literary pursuits. His muscular development was much below the normal. He had an annoying cough, had lost twenty pounds in weight during the preceding six months, and was troubled with night-sweats; no hemorrhages. Being convinced that this young man was a victim of that dread disease, the "white dead" of our modern times, consumption, I immediately began treating him with my (at that time) new extract of hogs' lungs, to which I had given the name pneumonine porca. This I injected subcutaneously, in proper dosage, so many times daily as his condition required. There was a marked and rapid improvement in the condition of his lungs. Cough became much less frequent, expectoration decreased, night sweats ceased. I now began to give him bicepine ursa horribilis in proper dosage, and was extremely gratified to note immediate increase in his muscular development. Coincident with this improvement there came an unexpected and astounding moral change in this young man. He developed marked hoggish and bearish traits of character! One day, entering my laboratory without permission, he drank off at one gulp a large percolator full of mixed extracts of all the organs of the bear. I was horrified, expecting a fatal result, but to my surprise he only expressed gratification and pleasure at having gotten such "good soup." The changes that henceforth ensued in the physical, mental, and moral constituency of this unfortunate young man, consequent upon his ingestion of the animal extracts of the hog and the bear, were rapid and lamentable. He forsook his literary pursuits and became a sport, finally drifting into the prize-ring, where he soon attained a most deplorable popularity and success. The prolonged effects of this medication in 1878 are somewhat remarkable, for it was not until 1890 that the action on the physiological remedies began to wear off, and only in 1892 did he renew his literary labors, so suddenly terminated fourteen years before. It is especially noteworthy that his bicipital circumference, which was $8\frac{3}{4}$ inches before treatment, increased to $19\frac{3}{8}$ after treatment. The hint given me by the moral changes noted in the preceding patient was not lost.

Chlorate of Soda in Cancer of the Stomach.—At a meeting of the French Association for the Advancement of Science, in August last, Dr. Brissaud, of Paris, made a report upon the above subject. He said that it was an established fact that solutions of chlorate of potash exert a very favorable influence on epithelioma of the mouth and certain forms of cancroid of the face. The successful results obtained with this method induced him to try the effect of the corresponding salt of sodium in the treatment of carcinoma of the stomach. This salt was selected because it is much less toxic and more soluble than chlorate of potash, seeing that relatively large doses may be injected into animals without ill effect, and that it is soluble in three times its own weight of water, while the potassium salt requires twenty parts of water for complete solution. He had treated several undoubted cases of cancer of the stomach by the administration of chlorate of sodium in doses varying from eight to sixteen grammes (two to four drachms) in the twenty-four hours. The results were so satisfactory that if his observations were limited to one or two cases only he would hesitate to publish them, because he might possibly have mistaken cases of chronic gastritis for cancer; for the former, as is well known, sometimes present all the symptoms of malignant disease. But during the last four years he had tried this treatment with equal success in five successive cases of localized gastric cancer, and it is difficult to admit that an error of diagnosis was committed in each of these five cases; this is the more improbable seeing that three of the patients presented a distinct epigastric tumor. In every case the treatment was followed by the most remarkable improvement, amounting practically to a cure. The drug was given in doses of twelve, fourteen, or even sixteen grammes in the twenty-four hours, and the patients may now be regarded as radically cured. Under the influence of this treatment, the melæna, hæmatemesis, and cachexia disappeared; the appetite returned; and in the three cases in which a tumor could be detected in the epigastrium, it gradually subsided until no trace of it was left at the end of six weeks. On the other hand, the treatment failed in a number of cases, for while chlorate of sodium seems to exert a favorable influence on malignant tumors of the epithelial type, it produces no effect whatever on the interstitial sarcomatous type of neoplasms. Moreover, the failure in some of these cases is to be attributed either to the fact that cancer had already spread to other organs, or to the presence of complications which were not amenable to the treatment. For example, in one case the liver was already involved when the administration of chlorate of soda was commenced. In another patient, a young woman who had at first experienced some relief from the treatment, the disease suddenly extended to other parts of the body, where it developed with extreme rapidity. She was a patient of Dr. Nélaton; she received sixteen grammes of chlorate of soda a day, and in the course of a few weeks hæmatemesis ceased, appetite returned, and she put on sixteen pounds in weight. This improvement was so remarkable as to suggest an error of diagnosis. At the autopsy, however, cancerous nodules were found in various organs and tissues. In a third case death was due to phlebitis of the inferior vena cava. It cannot, therefore, be included in the statistics of the treatment of gastric cancer by chlorate of soda.

The Creation of God.—Dr. Jacob Hartmann, of St. Louis Medical College, has written a treatise in explanation of the above subject. His theory of the origin of life is marvellously simple and axiomatic: "Vegetable chemical compounds, organic substances, can be produced only under certain vitalizing conditions and influences." "Wherever upon the surface of this earth the sun's rays produce a certain degree of heat, temperature, CHO may combine and evolve vegetable life." It seems hard to realize that this explanation has never occurred to Tyndall, Bastian, Sanderson, and others of the non-illuminati. Dr. Hartmann has also an explanation of the origin of mind and the breath, which he puts poetically thus:

> "No soul you will ever find,
> Trust not in its life or death;
> Education makes the mind;
> Oxygen is the life's breath."

The creation of God is a mighty mystery, but hardly so great a one as that of the creation of the author.

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DERMATOLOGY IN ITS PRACTICAL RELATIONS TO GENERAL MEDICINE.[1]

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WHILE no one doubts the advantage of a sound knowledge of general medicine as a preliminary to the study of any special branch of it, we are apt to overlook the advantage to general medicine that may accrue from the careful study of a special organ and its diseases. In selecting a subject on which to address you, it seemed to me probable that as the subject must necessarily be dermatological, its treatment from as broad a stand-point as possible would be most congenial on an occasion like this to you and to myself. I have tried to place myself in the position of what, in England, we call a general practitioner, and to answer the question, How will a knowledge of diseases which affect the skin be of advantage in the diagnosis, the prognosis, or the treatment of many diseases of other organs?

I pass by its advantages as a training in close observation, although in this direction it is of high value, nor shall I dwell upon the opportunities it presents for studying pathological processes as they go on during life, which in disease of other organs we have to infer from what we see upon the post-mortem table. One thing I would seek to impress upon you, the practical value of your knowledge is in proportion to its accuracy. This, however, dermatology shares with the other branches of medicine; nothing is more fallacious and more disappointing, when you are face to face with a case which is not cut exactly upon a text book pattern, than what is called "a general knowledge of the subject."

You can come to no sound decision unless you are aware in what respects the disease in question may depart from the usual type, and you are driven to the last resort of the destitute diagnostician, viz., to treat the most prominent or most disagreeable symptoms. In studying our subject I propose to take up each organ and discuss what diseases of the skin are found in relation to it, laying stress only upon those which are either characteristic of the disease, or are at least so frequently associated with it as to immediately suggest whether the particular disease may be present.

I shall pass lightly by those diseases of the skin which only own an etiological relationship of so occasional a character as to render it doubtful whether in any particular case such relationship exists at all, and commence with the kidney because its functional relation to that of the skin is so close in health, as well as in disease, that it is only surprising that renal and skin disorders do not depend even more closely on each other than clinical facts would warrant us in asserting.

Several eruptions play an important part in relation to diseases of the kidney and urinary disorders. The most familiar of these are boils and carbuncles. Although these lesions are directly due to the presence of the micro-organisms staphylococcus aureus and albus, as is well known, they find an extremely congenial soil in persons suffering from diabetes mellitus, and if a patient comes to you with boils or carbuncles it would be culpable neglect not to examine the urine whatever the patient might complain of. Even if there is no sugar in the urine they should suggest an inquiry as to external causes, and there is no more prolific source of boils, carbuncles, and abscesses than sewer-gas poisoning; the drains and water supply, therefore, should engage your attention. Eczema and pruritus of the genitalia are also frequent and familiar concomitants of diabetes; urticarial and erythematous eruptions are not uncommon but less significant; but there is one affection which, although rare, is of considerable importance because it occurs in persons whom you would not *primâ facie* suspect of glycosuria while a knowledge of this eruption would at once put you on the track. Let me give you a case in point:

A gentleman, aged thirty-eight, was sent to me for the diagnosis of an eruption which had appeared on the buttocks two months before I saw him, and soon after came out on the front of the arm, and then on the elbows and knees, and the lesions had gradually increased in number. The eruption consisted of papules, from a hemp-seed to a pea in size, with a red base and yellow apex, and there were no subjective symptoms; the patient looked well and complained of nothing, only when questioned he admitted some lassitude and that he was more easily tired during the last nine months than he had been formerly. Recognizing that the eruption was that known as exanthema diabeticorum, I at once examined the urine and found sugar, which subsequently was shown to amount to eighteen grains to the ounce, while he passed about seventy ounces of urine per diem. With suitable dietary and other treatment the sugar and the eruption both disappeared. I emphasize this case because it is a very good illustration of the service of dermatology to general medicine. The practitioner who sent the patient to me was a well-trained man, not at all likely to overlook a case of diabetes in which other symptoms besides the eruption pointed to glycosuria.

A generalized ache, such as this case of folliculitis of which I show you the drawing, deserves a passing mention in connection with diabetes; but what may be called terminal gangrene, the gangrene of fingers, toes, or penis, or superficial patches on the limbs, is not of so much practical importance from the point of view of diagnosis, as it only occurs quite late in the disease, when the merest tyro would not miss the cause of it. Skin eruptions play a less important part in relation to albuminuria. Urticaria, the ubiquitous eczema, and occasionally general pruritus, no doubt occur sometimes in granular kidney, and other forms of chronic Bright's disease, but are not specially significant of renal inadequacy except perhaps in old people. A very important erythema, however, sometimes occurs in advanced chronic Bright's disease, which is of grave prognostic significance, as it is a uræmic phenomenon and marks therefore the beginning of the end. This uræmic erythema may at first resemble measles or scarlatina, or be in small or large uniform separate patches, but coalescence of the initial lesions soon occurs and the diffuse redness or superficial dermatitis spreads rapidly over the body and not infrequently becomes universal, and is soon followed by desquamation in large flakes of the whole surface, while occasionally vesicles and pustules may develop.

The following is a good example: An apparently well-preserved man, aged eighty, who looked ten years younger, had suffered from eczema off and on for several months. When I saw him the eruption occupied the greater part of the lower limbs and the ears. There was a faint trace of albumin in the urine, but only what would be

[1] An address delivered at Chicago.

found in many men of his age, and his organs appeared otherwise sound. The eczema improved under treatment, but he had been in the habit of taking bromide and chloral for sleeplessness, which I had not been able to stop altogether, and one night the nurse gave him a second dose. No immediate ill effects were shown, but from that time he gradually got weaker, and about a month after I first saw him a deep red erythema appeared in patches on the trunk, and rapidly spread over the whole body surface, speedily followed by copious desquamation everywhere except where the eczema was enveloped with Lassar's paste. After this he went steadily down hill, became weaker daily, then his mind wandered, and he died comatose about a month after the uræmic erythema first appeared.

Another instance came quite recently under my notice, in a medical friend who had had albuminuria after scarlet fever for nearly forty years. He had had uræmic symptoms two years before, but the fatal event had been averted, and he had apparently quite recovered. Then with that unwise self-medication which characterizes our tribe he put himself on a milk diet, and in a few days became completely prostrated. He partially rallied with good feeding up, and went about for a few weeks, then a flat, papular eruption appeared on the back of the hands and on the hips, which after about a week began to generalize, and when I saw him the whole trunk and lower limbs were covered with measle-like papules, which at the wrists had enlarged to flat, slightly raised patches one-half an inch in diameter, while on the back of the hands they had coalesced into a diffuse scaly area occupying the whole hand. The eruption had itched when it first appeared, but this had ceased when I saw him.

The liver is an organ which seems to have been created as a refuge for our weaker brethren. If the doctor can but tell the patient with any show of plausibility that his liver is out of order, both are at once made content, the doctor because he has been able to give an answer which satisfies the mind of the patient, while the latter has a label for his disease which he thinks he understands, and which probably jumps with his preconceived ideas.

Apart from diabetes and the cutaneous lesions associated with it which we have already considered, the liver is not directly responsible for many skin troubles. One of the most persistent is general pruritus. In any case of pruritus not due to an inflammatory eruption, after excluding parasitic irritation, the liver is one of the first organs requiring investigation as to its physical conformation, and the way in which it is carrying on its functions.

That condition which Murchison described under the title of "lithæmia," is one of the commonest causes of severe and often very persistent pruritus, sometimes without any cutaneous lesion other than may be produced by scratching, at others with concomitant or antecedent urticaria. During, and after jaundice also, pruritus is sometimes a very persistent and very distressing symptom.

Another affection associated with long standing jaundice is xanthoma multiplex. It is immaterial what the cause of the jaundice may be—gall-stone, carcinoma, or stricture of the common duct—long-standing jaundice is likely to be accompanied by xanthoma multiplex. I emphasize the term "multiplex" because xanthoma of the eyelids alone is more frequently associated with migraine than with any other disease, and may be quite independent of recognizable hepatic derangement. On the other hand, probably ninety-five per cent. of xanthoma multiplex in adults own jaundice as an antecedent, and although it may occasionally occur without jaundice in every such case, the most careful investigation into the liver should at once be made; for in some few instances the xanthoma anticipates the jaundice instead of following it. Such was the case of the patient of which I show you the drawings. For years she had xanthoma without any alteration of the complexion except a sallowness, but about twelve months before her death she became deeply jaundiced, and died of biliary cirrhosis. She had, however, been a martyr to migraine all her life, and as usual the xanthoma was at first limited to her eyelids, and appeared on the limbs several years later.

"Liver spots" refer to the color, and not to any etiological relationship to the liver.

Pigmentation, especially when diffuse or in large patches, plays an important part in many general diseases. The well-known bronzing of Addison's disease is, as you are well aware, in most cases its most prominent symptom; it is general in its distribution, but is most strongly marked in the face, neck, hands, axillæ, umbilicus, and genital region; it affects the upper part of the body before the lower, as a rule, and involves the mucous membranes to a greater or less degree. It may be only slight throughout, or gradually increase till the skin is as dark as that of a negro, and in rare instances only, is it absent.

In Graves's disease, or exophthalmic goitre, pigmentation is a very frequent symptom, sometimes only as freckles, especially about the orbits, or there may be local or general bronzing, or it may take the form of leucoderma. The so-called uterine chloasma in connection with pregnancy or uterine derangements is common enough, but it may occasionally occur in other abdominal conditions, such as abdominal tuberculosis, cirrhosis of liver, and I have seen it in connection with chronic constipation; and on the successful treatment of this condition it disappeared. Although usually confined to the face and neck, it may also affect the trunk and limbs, and in one instance the patient was spotted like a leopard.

In all the above conditions, it is doubtless in direct connection with disturbance of the abdominal sympathetic, especially the semilunar ganglia.

In malaria also, the skin may become yellowish, yellowish-brown, or even black, as in the "Black Disease" of Assam, where it is acute in development, but in the majority of cases it is only produced after prolonged exposure to malarial influences, and is due to destruction of blood-corpuscles, and the circulation of pigment particles.

The diffuse bronzing of leprosy need only be mentioned.

Pigment patches sometimes occur with rheumatoid arthritis, and as one of the symptoms of senile degeneration of the skin.

The yellowness of jaundice I need not dwell upon, but pigmentation in connection with the prolonged administration of certain drugs is worthy of your attention. Years ago, when nitrate of silver was considered to be the best treatment for epilepsy, blue- or slate-colored persons were met with much more frequently than they are now, since nitrate of silver has been supplanted by bromide; but argyria, as it is called, may also occur from its topical application, and in not a few cases has it arisen from a solution of it having been employed to paint the fauces and pharynx.

There is a strong reason to suppose that the man whose portrait is shown acquired the discoloration in this way, and that, too, though the solution was used many years before the blue color developed. I ascertained, with almost certainty, that he had not taken or used nitrate of silver for nearly thirty years, and that the pigmentation was comparatively recent, he adduced the conclusive evidence that he had only been married to a young second wife for four years, and "if I had been blue," said he, "she would not have married me."

But if bromide of potassium has saved a good many epileptics from being turned blue, it has indirectly been the means of turning many such brown, and in this way: In order to control the so-called bromide acne, Fowler's solution is often combined with the bromide mixture, and this being taken for months, or even years, arsenical pigmentation results; not a few such cases having been referred to me for diagnosis by the very neurologists under whose auspices they have taken the drug.

The same accident frequently occurs in children with chorea, to whom arsenic is often given.

Arsenical pigmentation may be recognized, partly by its sepia tint, and on the trunk in the early stage the hair-follicles are the last part affected; hence there are white dots on a dark sepia-brown ground, but at a later stage these also are involved, and then the tint is uniform.

The border shades off gradually into the normal skin, and the face, neck, and abdomen are generally most deeply tinted. When psoriasis has been treated by arsenic, the site of the old patches is the seat of the pigment, but if given for a very long period diffuse pigmentation may ensue. As a rule, however, it is not in the treatment of skin diseases, but in those of the nervous system, such as epilepsy and chorea, that diffuse arsenical pigmentation is produced. The main factors in its production are the dose and the length of administration, but idiosyncrasy also plays a part, as a very moderate quantity will sometimes produce it, and children are much more susceptible to its influence in this respect. In one case, a girl, with chorea, to whom I gave three minims of Fowler's solution, gradually increased to five minims three times a day, it developed within a fortnight. Arsenic also produces hyperidrosis of the palms and soles, and horny thickening, beginning round the sweat orifices, and gradually forming a uniform horny plate over the whole palmar, and all but the arch of the plantar surface. Finally, it predisposes, if it does not actually produce, herpes zoster sufficiently often to show that there is an etiological relationship.

The practitioner should be aware of the possibility and appearance of eruptions produced by the administration of certain drugs. As a rule, drugs cause eruptions of an erythematous, urticarial, and occasionally vesicular or bullous character, not at all distinctive, and the origin can only be suspected when the patient is known to have been taking a drug which may occasionally produce eruptions of that character. The copaiba erythema is perhaps the most familiar example, but its characters are very variable.

Two classes of drugs only, besides those mentioned already, produce distinctive rashes, viz., bromides and iodides. They are often, however, very like each other, but can usually be distinguished pretty readily, and they are distinct from any other kind of eruption. Briefly stated, the bromide rash consists of an aggregation of pin's-head pustules on a raised, soft, red plateau of an inflammatory tissue. The iodide eruption has a bullous appearance, instead of a purulent character, and is not so distinctly made up of an aggregation of smaller lesions. I said "of a bullous appearance," because, as a matter of fact, the lesions are solid in spite of their vesicular aspect, and on pricking them only a tiny drop of clear fluid escapes. Both these eruptions occur much more frequently in children than in adults, and in infants very small doses, *e.g.*, the quantity derived from the mother's milk when she is taking bromide or iodide of potassium, has produced it in some instances.

In adults, however, the matter stands on a somewhat different footing, and unless the patient has had large doses, or the drug has been given for a long time, an iodide or bromide eruption produced by moderate doses is indicative of defective elimination due to disease of either the heart or the kidney. I remember a case which I was asked to see in a small-pox hospital. The patient, a middle-aged woman, had been sent in as a case of small-pox, and the authorities, though well aware that it was not small-pox, were puzzled as to its nature. It was a very well-marked case, and I easily recognized that it was a bullous iodide eruption, and moreover predicted that she had either cardiac or renal trouble. This was correct, for she had albuminuria and mitral regurgitation, and she had only taken a few five-grain doses of iodide of potassium. The patient depicted in the drawing had also only had a few small doses, and suffered from the large white kidney. That the rash is distinctive this photograph shows. It was sent to me for a diagnosis by a practitioner who had a dispensary for diseases of the skin in a provincial town. The history was that it had come out in the course of a few days, that the lesions had a vesicular appearance, but were solid, and that the eruption had been out about a fortnight. I wrote that it was an iodide eruption; the reply was, "that it was impossible, as the man had had no iodide of potassium." I said that I knew of no other eruption with such characters, and told the doctor to inquire if the patient had taken any quack medicine, especially "Clark's Blood Mixture," which is well known to contain iodide of potassium. It was only after much cross-examination that the patient admitted that he had taken "Clark's Blood Mixture," and afterward half a dozen empty bottles were found to corroborate his admission, his first contradictions having been due to forgetfulness, not lack of *bona fide*, and the rash, as frequently happens, not having appeared until more than a week after he had left off the medicine, the cause and effect were not connected in his alcoholic muddled brain, for the man was a drinker with a weak heart and diseased kidneys.

I have related this case to show you that the diagnosis can be made in a well-marked case quite independently of history, and even in the face of *prima facie* evidence to the contrary.

Other forms of eruption may also be produced by both bromides and iodides, but they are not distinctive, and require evidence of the antecedent drug to enable a certain diagnosis to be made, though there is strong ground for suspecting the iodides when large patches of induration with bright color are seen scattered about the body.

Although the condition of the alimentary canal has an important influence on the production, continuance, and course of many cutaneous eruptions, chiefly of the urticarial, erythematous, or eczematous classes, there is nothing distinctive about the eruptions so produced, and they may be equally well due to other causes for aught we can tell from the skin lesions themselves. True it is that urticaria, both in adults and children, is more frequently due to disorders of the alimentary canal than from all other causes put together, and naturally, therefore, we seek first for its cause in such disorders; but urticaria from chill, for instance, is indistinguishable from urticaria ab ingesta, and it is only by investigation into the history of onset and the present conditions of the digestive organs, that we can form an opinion as to its cause. In the urticaria of children, however, although external parasites will sometimes be the exciting cause, in nearly all cases gastro-intestinal catarrh is the real factor to be dealt with, and a rigid dietary, forbidding all sugar and starch food, except with maltine, is a prime necessity, while alkalies, bismuth, and a protection against chills are the other indications.

There is, however, one disease in men which is always due to dyspepsia, and in women nearly always so, viz., acne rosacea. I say nearly always so in women, because another factor may sometimes be the more important cause, viz., uterine disorder; but even then stomach derangement is a common concomitant. Acne rosacea is the result of chronic reflex hyperæmia of the face, the pimples being an epiphenomenon of the oft-repeated congestion. It may be produced without the patient suffering consciously from indigestion, the reflex flushing of the face after meals being sometimes the only tangible evidence that digestion is not normally performed. This applies only to the slighter cases; in the worst forms other symptoms are also prominent, and alcoholism and exposure to vicissitudes of weather play an important part in the highest development of the disease, of which I show you an instance. The patient was a cabman, who combined all the necessary factors, his occupation exposed him to the weather, while he admitted that he was "a thirsty soul" and drank when he wanted to, but the growth took a good start after being kicked by a horse. Such noses can be very satisfactorily trimmed down by the knife, though the result falls somewhat short of a "classical ideal."

There is another very rare affection called chromidrosis, in which obstinate chronic constipation is almost

always present. It consists of a colored sweat, or sebaceous secretion. When the sebaceous glands are concerned it is sometimes called seborrhœa nigricans, and chromidrosis is then reserved for the sweat affection. They are, however, evidently identical in origin and distribution, and may be treated as one affection, especially if Unna's views are correct. He follows Neisser and says, "The sweat coils secrete fat and the duct only water or sweat."

However this may be, clinically we see colored patches, usually black or sepia, especially in the seborrhœic cases. Sometimes in the sweat cases there may be blue from azure to indigo, and red, green, yellow, and violet sweats have been recorded, and even a change of tint, blue to black, yellow to black, and blue to ochre have been observed. The theory put forward to explain it is, that indigo is formed from indican derived from the absorption of indol from the long-retained fæces and subsequent oxidation. However this may be, free purgation and enemata to get rid of the accumulation is the best treatment to pursue.

Do not, however, run away with the idea that every young woman with black under her eyes is suffering from chromidrosis. The condition is so easily simulated that hysterical women not infrequently produce it artificially. Such women generally have some increase of pigmentation of the eyelids which suggests accentuation to their morbidly perverted minds longing for sympathy or attention, analogous to what is seen in conceited men of small ability, who when they fail to become celebrated are glad to become notorious. Such women generally have some natural increase of pigment of the eyelids, which suggests accentuation.

It may be expected that I should have much to say on the relation of diseases of the skin to the nervous system, but it is not so. It is true that herpes zoster is always the result of inflammation of some part of a nerve or nerves, especially of the posterior ganglion of the main nerve domain affected; that herpes febrilis is the cutaneous expression of an antecedent rigor, or at least chilliness; that multiple anæsthetic whitlows are indicative of Morran's disease; that bullæ are very likely to appear in the domain of a nerve affected with inflammation; and that the thinned, slightly reddened, and shining appearance known as "glossy skin" is also the result of a neuritis, whether gouty, rheumatic, or traumatic; but those nerve conditions may be present and no corresponding cutaneous lesions appear. It is true, also, that many cutaneous lesions have arisen from nervous shocks, such as sudden and great grief, fear, etc. Among such consequences general alopecia, often with loss of nails, sudden blanching of the hair, severe attacks of eczema, pityriasis rubra, lichen planus, and psoriasis, but there is nothing in the cutaneous lesion itself to suggest its origin, which is only discovered by the history furnished by the patient.

Many years ago I made careful investigation into the etiological relationship of nerve lesions to skin diseases, and the conclusions I arrived at were, that while the nervous system may determine the occurrence, distribution, extent, and intensity, it has no influence on the kind of eruption; and further, that less serious consequences ensue from cutting off the nervous supply than from irritation or inflammatory lesions of the parts of the nervous system that affect the skin; that the kind of eruption produced by the nervous system varies greatly, often without any evident reason, when the nervous defect is apparently the same in place and kind; that the same kind of nervous lesion that at one time appears to excite an eruption or other nutritive defect in the skin, even more frequently produces no change in the skin whatever. In short, the nervous influence is an indirect one. Conversely, therefore, we cannot expect skin lesions to afford much assistance in the diagnosis or treatment of nerve lesions. Recently, however, F. Head, by studying the distribution of a large number of cases of zoster, has been greatly assisted in mapping out the areas of skin affected in connection with visceral pain. And some forms of erythema, chiefly patchy or diffuse, are to be met with in peripheral neuritis such as we see in pellagra, acrodynia, and beriberi.

Hitherto we have discussed skin diseases in relation to diseases of the other organs. I pass on now to their connection with diathetic conditions. I need not dwell upon such diseases as syphilis and leprosy, where the skin lesions are so prominent that they are considered to be a branch of dermatology; the erythema connected with pellagra and acrodynia and beriberi, though of neuropathological importance, is also scarcely more than of academic interest to you. The eruption of erythema nodosum may and should suggest an inquiry for a rheumatic taint, for rheumatic symptoms such as arthritis, sour sweats, sore throats, and even endocarditis, have been found associated with this eruption so frequently, that even when the skin lesions are present alone, the suspicion of rheumatism should be excited. Other forms of erythema multiforme have been supposed to be connected with rheumatism, but the evidence is less definite. One purpuric form, however, is so constantly associated with arthritic pains as to be called purpura or peliosis rheumatica, but it is not certain that the pains are really rheumatic. This eruption is really a hemorrhagic erythema, and this and another form of hemorrhagic erythema is also often associated with internal hemorrhages from the stomach, intestines, or the kidneys, as in the following case:

The patient, Samuel H——, aged thirty, was an omnibus driver, with a good family and personal history, except that for the last fifteen years he had noticed at times a red eruption on his arms and legs, with stiffness of the joints, which went off if he got warm. This attack began on December 30, 1888, the rash came out on the arms and legs without itching, but attended with the usual stiffness of the joints. On January 3d, diarrhœa supervened, and increased until the 12th, when vomiting of greenish-yellow fluid and blood was added. Next his stools were mixed with blood, and he became worse daily, and on January 21st he was admitted into University College Hospital, under my colleague, Dr. Poore. The next day purple spots came out on the left buttock and over the knees and elbows. The eruption was in papules, from a pin's head to a quarter of an inch in diameter, and did not itch, but was rather tender; he still passed blood by vomit and stool. In the next two days he was much better, but relapsed on the 25th, with great pain and diarrhœa; the stools were for the most part fluid, but with some scybala, were chiefly yellowish-gray, but contained blood, slime, and a jelly-like substance. The urine had a trace of albumin. He improved and went on well until February 8th, when he again relapsed severely, and the rash, which had faded, broke out again on both wrists and elbows, and was hemorrhagic as in the drawing. I saw him on the 9th, he was very prostrate, and I recommended five grains of quinine to be injected by the rectum; the next day he was better, but vomited occasionally, and the eruption was vesicular with increased hemorrhagic exudation. He had a slight relapse on the 14th and 15th, but after that progressed slowly but uninterruptedly; the rash only faded slowly. I believe that the explanation of this case is that it was due to ptomaïne poisoning, absorbed from retained scybala. During the attack the temperature varied from subnormal, even as low as 95° on one occasion, to 100.8° at its highest, but just over 100°F. was more common.

Here is a somewhat analogous case, in a girl aged thirteen. I saw her in her fourth annual attack at Christmas time, 1892. Each attack began with severe abdominal pains, vomiting and purging blood, very offensive breath, and hæmaturia. In the first and second attacks, which were the worst, besides the purpuric eruption on the limbs there were black blisters on the ears, and the eyes turned black. With recurrences the attacks lasted three to six weeks, but once as long as six months.

Another disease supposed to have a strong connection with gout is eczema. No doubt the two diseases often enough stand in etiological relationship to each other, but this relationship has been enormously exaggerated, so that, with the laity, eczema and gout have become almost synonymous terms, and anxious mothers bring their infants with eczema and ask "if it is gouty? as gout is in the family." I am bound to say that the profession are mainly responsible for this view, and many a puzzled practitioner, when asked the cause of an eczema, escapes from his dilemma by uttering, with solemn expression and tone, the mysterious words "suppressed gout." My advice to you is to continue to suppress it if you can. The tubercular is one of the most important diatheses, and it may be defined as an organization favorable to the growth of tubercle bacilli. There are certain skin affections which are generally acknowledged to be directly due to tubercle bacilli. There are others where the connection is only indirect.

Those directly due to tubercle bacilli are true or nodular lupus, scrofulous lupus, and its congeners scrofuloderma, lupus papillomatosus, lupus verrucosus, and its allies verruca necrogenica and tuberculosis verrucosa cutis; the last is the same affection as the post-mortem wart, but derived from animals instead of man; finally there is the acute tuberculous ulcer.

The last four are all examples of inoculation tubercle, though the acute tubercular ulcer is due to auto-inoculation, and the patient is always suffering from advanced phthisis.

In scrofulous lupus other evidences of scrofula are nearly always present, but in nodular lupus this is seldom the case, and it is more frequently the sole manifestation of an inheritance which is so fatal when the bacilli attack internal organs. In Europe, at all events, the proportion of cases in which phthisis is to be found in the family history of lupus patients is very large indeed. I qualified my statement by speaking only for Europe, because I am aware that my distinguished colleague, Dr. Nevins Hyde, from an analysis of eighteen cases came to a different conclusion, as only one had a history of phthisis in the family, and either America differs remarkably from Europe in this respect, or the number of cases being not large, it may have happened that Dr. Hyde had a run of cases with a good family history. That such runs do occur we all know, and a very remarkable one is Hebra's experience in another scrofulous affection to which I am about to allude, viz., lichen scrofulosorum. Hebra's first fifty cases were all males, and nearly all young adults; yet further experience has shown that the great bulk of cases occur in childhood, and that both sexes are about equally affected.

The lichen scrofulosorum, of which I have just spoken, is one of the eruptions only indirectly due to the tubercle bacillus. It is not an important eruption in itself, being little more than a hyperæmia of the lanugo follicles on the trunk and limbs, but it is very significant of the kind of patient with whom we have to deal. This knowledge comes in practically useful, not so much in extreme cases when keratitis, bone disease, and gland enlargement are very likely to be present, but in milder forms which are only brought under notice when, for instance, we are examining the chest of a child for pleurisy or other chest affection, and are perhaps puzzled to explain its presence.

Still another skin disease, usually seen in pronounced scrofulous patients, is acne scrofulosorum. It is a very rare affection, but its distribution on the buttocks and thighs is characteristic. Occasional pustules are frequently seen in lichen scrofulosorum, but in acne scrofulosorum, suppurative folliculitis with this distribution predominating, is the sole cutaneous lesion in addition to the malnutrition so frequent in such patients. A somewhat rare affection connected mainly, but not exclusively, with sebaceous glands, is that known as adenoma sebaceum. Its lesions are small, solid, vascular, millet-seed-sized nodules closely aggregated on the cheeks and chin, and along the naso-labial fold, and more sparsely on other parts of the face. They are doubtless of developmental origin, though they only show themselves in early childhood, and are intimately connected with similar nervous defects such as epilepsy, imbecility, or idiocy. Although this is not without exception in slight cases, it is true for the bad forms, and the affection is not rare in large asylums where cases with congenital mental defects are received.

Another disease with new-growths and poor mental development, is fibroma, or molluscum fibrosum, as it is sometimes called. The usual concomitants of such cases are stunted growth, coarse, ill-nourished, pigmented skins, and large pendulous growths in various parts of the body.

This rapid survey, which is all that the time at my disposal permits, by no means exhausts the subject, and there are many interesting and practical points which I should gladly have touched upon with regard to the exanthemata, in itself a large subject, the nails, the hair, and the several functions which afford useful indications to the thoughtful observer; but I must leave the discussion to another opportunity.

OPERATIVE INTERFERENCE DURING THE SECOND STAGE OF LABOR.

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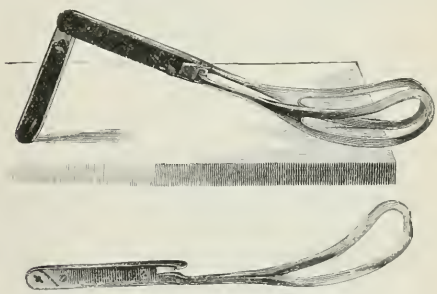
Except in rare instances, such as cases of eclampsia, hemorrhage, or obstructions, there should be no operative interference during or before the first stage of labor. The duration of the second stage is exceedingly varied; in one patient it may last but a few moments, and in another, days, and it is generally toward its end that trouble arises. The theory that the bag of water is of no service



Figs. 1 and 2.—Author's Axis Traction Forceps.

after the cervix is dilated, and that the progress of labor is suspended until it is ruptured, either spontaneously or by the physician, seems to me to be erroneous. It has also a function in dilating the vagina, and, in some cases, even has the same effect on the perineum; to interfere with it, therefore, appears ordinarily like a meddlesome procedure. When the head is on the perineum, artificial rupture of the membranes, if they are still intact, seems sometimes to precipitate delivery, but even this is not always judicious.

The application of the forceps in a proper manner is something that requires the skill as well as all the care of a surgical operation. Every practitioner thinks he is competent to use the forceps, but to do it properly is quite another affair. Its skilful use does certainly decrease infantile mortality, but by its bungling manipulation it is increased.

There is no danger in ordinary delay at the inferior strait, but we should be careful that this does not become too protracted, and we must remember that each case should be treated on its own merits, as it will test the judgment and good sense of the attendant, by the

results attained. It makes no difference how long the woman is in labor, if she or the child is not in danger, and is not suffering excessively, there is no call for interference. The attendant should not consider his sacrifice of time, but should make his charges conditional, in case there is excessive waiting; neither will it do to be influenced in the application of the forceps by anything but the medical aspect of the case, as there is often a disposition to apply them sooner than is really necessary, urged by the apparent sufferings of the patient, and the importunities of relatives and friends to "do something

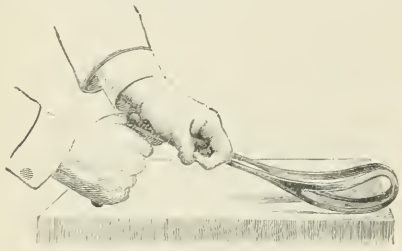


FIG. 3.—Method of Holding.

for her relief." Here we should not forget our anodynes and anæsthetics, but use morphia or chloroform as indicated. Some women suffer much longer than others, and, in their agitation and excitement, believing they will die undelivered, are often anxious for its application long before we are justified in using it. It is said that the forceps are applied far more frequently in private than in hospital practice, and that the policy of waiting on nature has with many given way to their earlier and more frequent use. This is to be deprecated, as in many in-

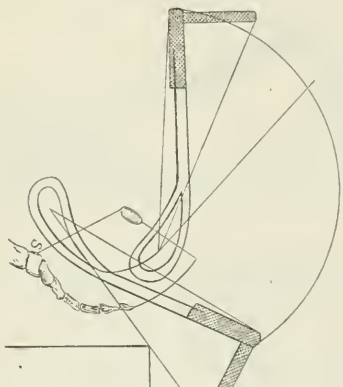


FIG. 4.—Line of Axis Traction and Mechanical Projection of Author's Traction Forceps.

stances, when they have been used at the superior strait with seeming success, the child often lives only a week or two and then dies, generally from some cerebro-spinal lesion.

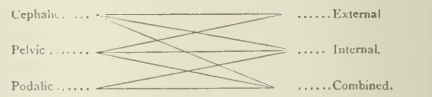
Manual or bandage pressure may often be employed in assisting the uterine contractions in expressing the fœtus. The hands should be spread out over the fundus, and firm, but not too severe, pressure, made during the pains according to Kristeller's method; or, if the patient is on the side, then a large roller towel or binder can be passed over the abdomen to be twisted behind into a knot and drawn tightly during each contraction, thus assisting the expulsion and gratifying the patient that something is being done to help her. This is much better than to stretch or to manipulate the perineum with the fingers, as many do. Then, if in spite of this assistance there is no progress, and the life of the child is prejudiced, as can be determined by watching the fœtal heart, and the integrity of the soft parts is endangered, we must apply the forceps.

There is no absolute rule to be laid down, but three per cent. would seem a fair average for interference; in the rest, if left to herself by non-interference, nature will gradually and safely finish the delivery. Meddlesome midwifery is as much to be deplored now as ever, and the patients often object to being "butchered," as they term it. Interference, even by the skilful, often means mischief; nature in all cases is the best judge, and performs her work beautifully. Even mild delirium is not, of itself alone, always an absolute indication for hastening the labor by instrumental interference, as some women become hysterically delirious upon slight provocation; but when pathological phenomena denoted by marked rise of temperature, weakness and rapidity of the mother's pulse, or feebleness and irregularity of the infant's, or when we think these threaten, there is no time for delay.

Episiotomy.—Episiotomy is a doubtful operation, and it is questionable if it does what it is intended for, as lacerations occur in spite of its performance. It is certainly one whose usefulness is very difficult to appreciate.

Perinorrhaphy.—Perineal tears of slight extent and where the muscles are not deeply involved, need not be sutured, as there is no special gaping and no loss of tissue; they generally unite immediately, if the knees are bandaged together. A laceration may, at first glance, appear serious, but it often subsides into a very small tear in a comparatively short time, and, in these cases, suturing is seldom imperative. The application of a stitch or two is simple enough, but the care thus taken by the obstetrician is seldom appreciated by the patient or her friends, and, if the tear is slight, it is better to leave its adjustment and repair to nature. Very severe or complete laceration should be always sutured immediately or within a few hours, and the results will be satisfactory if there is no dyscrasia. In secondary operations, not every laceration of quite considerable extent, of cervix or perineum, need be repaired; it is only when there is some pathological condition present, dependent on the laceration, that it is necessary to operate. No patient wants to submit to an unnecessary operation, and no true surgeon wants to perform it.

Version.—Version may be defined as the changing of one portion of the fœtal ovoid, which presents, for another. There are three varieties and three methods of operating. I have made the following diagram to show them at a glance. It is seen that podalic version has but two methods, while the others have three.



External manipulations for the production of version were practised by the earliest races. The ancient Mexicans and Japanese subjected their women to massage in order to cause a vertex presentation. Only of late years has external version become a popular obstetrical operation. Hubert de Louvain demonstrated its advantages in 1845, and within a short time Tarnier, Chautreuil, Budin, and Pinard have written on the subject.

The external method of version may be either cephalic or pelvic. Pinard strongly insists on the external method when the breech presents, and says it is dangerous neither for the mother nor for the child. In the primipara it is sometimes difficult, and may be impossible. We should, however, always attempt it, and it usually can be performed. Pelvic presentations are generally serious in primiparæ on account of the greater resistance of cervix

and perineum. They are not as a rule dangerous in multiparæ, and therefore external version is not necessary in these cases, but may be performed if it is desired. Transverse presentations are an absolute indication for external version. It is also indicated in pelvic deformity, and in placenta prævia. It is counter-indicated as a rule during labor.

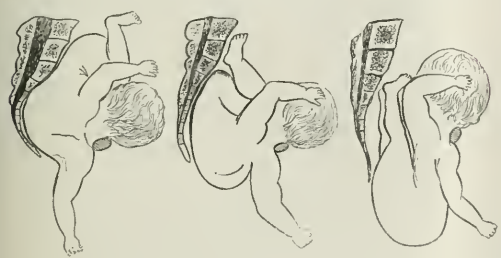
Method Before Labor.—1. In transverse presentations, apply one hand to the vertex, and the other to the

Fig. 5.—Cephalic Version, External Method

breech, and then by slow, continued pressure in the opposite direction, bring them around to the median line. (Fig. 5.) Pressure on the head alone may suffice if the child is small and movable. 2. In breech presentations, press the head down in the opposite direction to the breech; the pressure must be slow and continuous.

Method During Labor.—Apply pressure only between the pains, and during a pain hold the fœtus in position, so as not to lose the ground gained. When the head is engaged, the membranes may be ruptured if there is a tendency to displacement.

Pelvic Version.—The operation of pelvic version has seldom been performed manually, and has not yet been properly described, its advantages being known but to a very few. Obstetric works have rarely referred to it, and where they have done so, half a dozen lines was considered enough to devote to its description. This seeming neglect of such an important operation is to me a most unfortunate error, and one which should have been corrected long before this by practical obstetricians. It is stated that spontaneous pelvic evolution is quite a common occurrence, and I think it would be more often ob-



Figs. 6, 7, 8.—Spontaneous Evolution.

served if the attention was more especially directed to it, and if physicians were not so prone to interfere with nature's methods. It is more readily accomplished when the pregnancy has only advanced to the seventh or eighth month, and it is probably more common at this time than later on, when the child is larger and when it more fully occupies the uterine cavity. Velpeau has collected a hundred and thirty-seven cases of spontaneous evolution, which certainly shows it is comparatively frequent. In cases where the child is dead and the shoulder situated low down in the pelvis, the uterine contractions, assisted by the anatomical conditions present, cause the spinal column to readily become doubled upon itself anteriorly; for the abdomen having no bony structure, and the spinal column no spinous processes in front, its anterior flexion is most easily produced. Spontaneous pelvic evolution (Figs. 6, 7, 8) occurs far more frequently than spontaneous cephalic evolution, the latter being quite rare, and is due to the same factors working in the opposite direction. This difference results from the flexibility of the lower portion of the body of the child. In spontaneous pelvic version the breech presents and the head and trunk pass to the fundus (Fig. 9). This occurs much more frequently than the preceding, but it is impossible for it to take place when the uterus is retracted and moulded to the fœtus. The natural mechanism of spontaneous pelvic evolution can be readily produced by the obstetrician, because the artificial efforts supplement and assist the natural ones, following as they do in the line of nature's method of delivery. Pelvic version, in these cases, is nothing more than the imitation by artificial efforts of spontaneous pelvic evolution (Figs. 6, 7, 8), and is most frequently indicated in transverse presentations.

Fig. 9.—Spontaneous Pelvic Version.

This method of delivery has rarely been performed by the obstetrician. Kleinwachter says it is indicated in cases where the breech lies closer to the inlet than does the head, and where it would be difficult or impossible to perform the operation of cephalic version. It may be performed by external manipulation, but it is more easily accomplished by the combined method. When the latter method is chosen, the obstetrician should insert his fingers in the child's groin, or over the crest of the ilium (Fig. 12), and gradually draw the breech down into the pelvic basin. This finishes the operation of pelvic version, and now the operation of extraction can be easily performed. Where the child is small or medium size, we may rarely wait for natural delivery; if, however, it is large and the delivery promises to be difficult, you may give assistance by applying the forceps to the breech, or manual extraction may be employed. Spontaneous expulsion resulting from uterine contractions sometimes takes place in transverse presentations, where the shoulder presents and the body is well down in the pelvis. Denman has cited many cases in which this has occurred, but we should not think of depending upon nature to effect delivery in this way. Where artificial delivery has been resorted to under these circumstances, it has been hitherto the custom to perform the operation of podalic version. I recommend, however, as the result of my experience, the performance in many cases of pelvic version instead; its advantages over podalic version in these cases of transverse presentation, are as follows:

1. It is a much simpler operation, as it simply converts a case into an ordinary breech presentation.

2. It necessitates the introduction of the fingers only into the uterus, while podalic version requires the introduction of the whole hand and often most of the arm.

3. The child need only be moved sufficiently to draw down the breech, while, in most cases of podalic version,

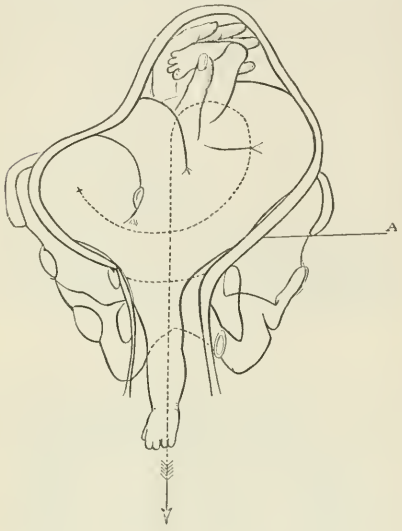


Fig. 10.—Podalic Version, Internal Method. A, Danger point.

the child must be made to rotate around the whole cavity of the uterus (Fig. 10).

4. There is much less risk of rupturing the uterus.

5. There is much less shock attending the operation.

6. For the above reasons, the mortality for both the mother and the child is much less than in podalic version.

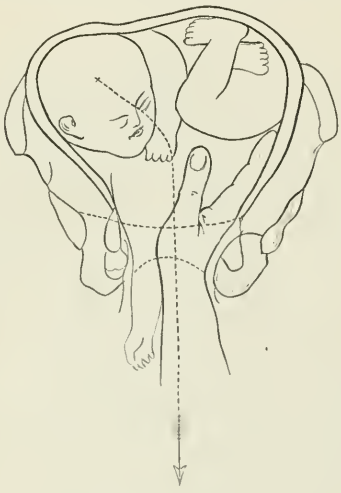


Fig. 11.—Pelvic Version, Internal Method.

In the operation of podalic version (Fig. 10) the body and head ascends to the fundus before the delivery begins, thus making the circuit of the interior of the uterus. In pelvic version, this does not occur, the breech being drawn down at once and the body and head following immediately. They traverse, at most, not more than a fourth of the circuit of the uterine cavity (Fig. 11). In cases where the uterus is strongly retracted upon the body of the child, podalic version is extremely hazardous, not only on account of the profound shock which it causes, but the great danger of rupture of the uterus. Podalic version is often employed for conditions where the forceps or pelvic version is indicated, and its performance in cases where there is thinning of the lower portion of the uterus has been the cause of many deaths from uterine rupture and from shock. In transverse presentation, where the child is alive and movable without great force being employed, cephalic version may be attempted in the intervals of the pains, the uterus meanwhile being thoroughly relaxed by morphia or chloroform. If this is not feasible, it will generally be found that pelvic version can be employed. If the examination during the last month of pregnancy shows that the presentation is not cephalic, it should be rectified,

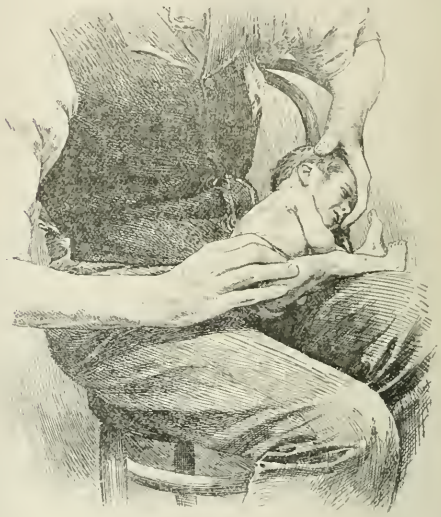


Fig. 12.—Method of Seizing the Breech in Pelvic Version.

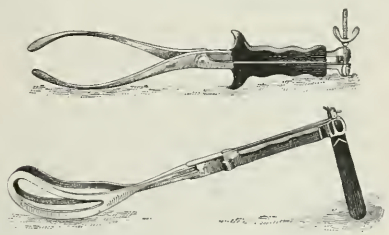
and, if during the labor the presentation is neither cephalic nor pelvic, the child should immediately be turned in either direction. In performing the operation of version, the pressure should be such as to shorten the long axis of the fœtal ovoid, and to place it in its proper relation to the pelvis. The pressure, therefore, should be made upon both head and breech, producing flexion and approximating the two poles of the fœtus. If we are not successful with external manipulation, the external hand should press the head and shoulder of the child upward, but not too strongly, while the internal hand at the same time draws down the breech. The breech may be drawn down by the thumb and two fingers of the operator grasping the child's pelvis with their extremities over the iliac crests or in the groins (see Fig. 12). When the version is complete, if the operation of immediate extraction is indicated it can be accomplished by continuing the manual traction, or the forceps may be employed for this purpose. This may seem to be a decided innovation, but it is the result of practical experience. We should not confound version and extraction, they being two distinct operations and each having its own special indications. The cases in which pelvic version is especially indicated are those unfavorable ones of arm presentation with the shoulder low down in the pelvis, and where the uterus is strongly retracted on the child's body and the membranes have been ruptured. Podalic version, as ordinarily employed, is here out of the question. You must

not confound podalic extraction with podalic version, as the former may be employed with pelvic version. Although podalic version is most frequently performed, and is recommended for all sorts of conditions, I am far from believing that it is a panacea for every obstetrical ill. In the ordinary pelvis, with a child of moderate size, the operation of pelvic version is not difficult, and, when skilfully performed, will often obviate the necessity of decapitation. The following case is indicative of its advantages in a common condition:

Mrs. W——, aged twenty-five, wife of a physician. First pregnancy normal. During her second, nothing unusual occurred until the ninth month, when an accidental blow on the abdomen caused slight uterine hemorrhage, followed after a few days by labor pains. On examination a dorso-anterior transverse presentation was found, which it was attempted to rectify, under chloroform, by the performance of podalic version. Alarming symptoms arising, she was given morphia hypodermically to quiet the pains until I arrived. The patient was well narcotized and the uterus was found completely retracted upon the body of the child; the left arm and about two feet of the umbilical cord were found protruding from the vulva; the arm was bluish and swollen, and the cord cold and pulseless. Owing to the retraction of the uterus and its being moulded closely to the body of the child, neither ordinary podalic nor cephalic version could be performed without great danger of rupturing the uterus. As the head of the child lay to the right, I performed the operation of pelvic version by the combined method; introducing my right hand I slipped my fingers into the child's groin, and following the method of nature, brought down the breech, thus quickly and easily effecting delivery.

Symphyseotomy.—Although it is generally thought that symphyseotomy was first proposed by Jean René Sigault, a French student, in 1769, and was first performed successfully by him in 1777, De La Courvée, another Frenchman, did the operation in 1644. It has been kept alive as an operation, and most often performed by the Italians. When it was first proposed, it was rejected by the French Academy and generally decried, the usual fate of most new discoveries. But after its successful performance it became enthusiastically received. After a time, however, it fell almost into oblivion, and it was nearly a century when, in 1866, it was again revived by Morisani. In 1892 it was performed by Spinelli, in Paris, and since that time has become a popular operation. The first performance of it in this country was by Dr. Jewett, of Brooklyn, followed by Hirst, of Philadelphia, who was shortly followed by Dr. Garrigues, of New York. Since 1886, under aseptic surgery, there has been sixty-eight operations and sixty-five women saved, and the three deaths were due to other causes. Pinard and his associates, in Paris, have operated on twenty women, who have all lived. There were but two deaths of children, making a total of thirty-eight lives saved out of forty. The rehabilitation of this operation, and the condemnation of craniotomy upon the living fœtus by progressive obstetricians, especially shows the advance in the field of obstetrics which has taken place within the past few years. This operation is often called Sigaultean operation, in honor of its first proposer. It limits the field of Cæsarean section most decidedly, and leaves to it the sphere only of absolute indication. It is an operation especially indicated where the patient has been exhausted by long and hard labor, and is here much less fatal than Cæsarean section. It is very important to take proper measure of the conjugata vera of the pelvis, and also to determine if the sacro-iliac synchondroses are normal, and whether coxalgic anchylosis be present. It is also contra-indicated in cases of cancer of the cervix and where the cervix cannot be dilated, also in pelvic tumors and exostoses causing great obstruction. The results obtained in symphyseotomy since the introduction of antiseptic methods are certainly remarkable, the wounds of the soft parts and pubis healing readily by first intention. The great advantages over Cæsarean section are its simplicity, that the peritoneum is not invaded, and the uterus not disturbed in any way. It is an operation which has banished from the domain of obstetrics craniotomy on the living fœtus, and the induction of premature labor is now no longer necessary. Cæsarean section should now only be performed for its absolute indication, where the conjugata vera is two and a half inches or less. Symphyseotomy can be repeated on the same patient, and has been so performed in several instances.

It is a very simple operation. After shaving the parts and having rendered everything aseptic, a catheter is inserted into the urethra to depress it out of the reach of injury. The incision should be made above the pubis, large enough to give free access to the joint. At the upper part of the symphysis a large vein may sometimes be found, which will require ligation. In some pelves the symphysis is flat and of great height. The recti muscles should be separated for a short distance from the bone, and after sliding the index-finger against the posterior surface, glide Galbiati's knife along the finger and cut from below upward, forward, and outward. The bladder and urethra must be carefully avoided when carrying the knife through the articulation. After the incision the bent knees are abducted, causing a separation of two and a half inches at the symphysis. If the adduction is carried to four inches or more, it will cause the sacro-iliac articulations to be torn open and grievously injured. While the limbs are fixed and abducted by the assistants, the delivery of the child is accomplished. The incision is then sutured, and the wound dressed antiseptically, and the pelvis carefully bandaged. Broad straps of adhesive plaster are drawn around the hips and over the abdomen, or gypsum bandages may be used. The dressing of the wound should be renewed daily. The patient should be kept in bed from three to four weeks. In these cases there is almost always more or less asphyxiation of the child. This should be prepared for, and the usual measures adopted. The child's head should be measured to determine its development. After delivery, if it is thought necessary, a tampon of iodoform gauze can be placed in the uterus and vagina. In some cases the joint surfaces are irregular like the letter S, and are also completely ossified. This makes the use of a symphyseotomy knife quite difficult, and here a surgical chain-saw may be employed, and when bone tissue is severed the union becomes even more firmly united. This operation completely occupies the position between the forceps, or version, and Cæsarean section, and with our thorough asepsis this is, like all others, virtually a new operation. It increases the diameters of the pelvis and changes a contracted into a spacious one. The



Figs. 13 and 14.—Author's Compression Forceps.

transverse and oblique, and in fact all diameters, are increased in a proportion of one-fourth to one-half of the distance of the separation of the symphysis. If the separation is two and a half inches, the general gain is about one inch in all directions. Pubiotomy is indicated where the conjugata vera is anywhere between two and a half and three and one-fourth inches. Above three and one-fourth inches the forceps or version is indicated, preferably my axis-traction (Fig. 1), or my compression forceps (Figs. 13 and 14). Nothing has given me greater satisfaction than to find that, when other ordinary forceps slip and fail to deliver, my instrument generally does the

work easily (Figs. 1, 2, and 3). The operation is also indicated in difficult face presentations, and in difficult cases of craniotomy on the dead child. The risk to the mother by the operation is very slight. Dr. Jewett, of Brooklyn, the first operator in America, says "a properly conducted symphyseotomy is a simpler and safer procedure than difficult high forceps delivery."

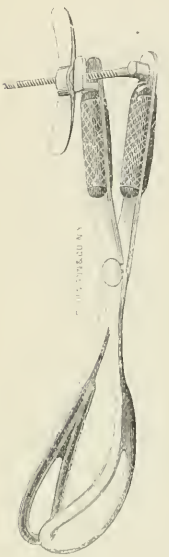


Fig. 15.—Lusk's Cephalotribe.

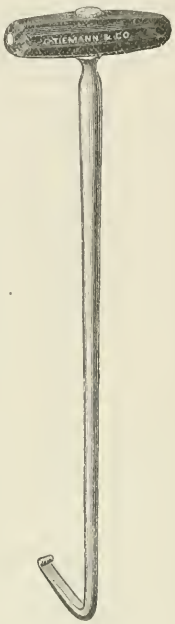


Fig. 16.—Braun's Hook.

Embryotomy.—With obstetricians possessed of the proper amount of skill, this operation will be only performed for its absolute indication on the dead child. With the increased knowledge that comes with unbiased and intelligent experience, the time has arrived for a decided change in the views of many obstetricians. Science has progressed, and faulty appliances and ignorance are no excuse for bungling work at this time, when the best skill should be easily obtained. Incompetency cannot here justify itself. We all know how often embryotomy has been performed, when turning, the forceps, or dependence on nature's powers were indicated. There is no comparison to be made with symphyseotomy of the dangers of an attempt to extract the mutilated remains of the child through a conjugate of from two and a half to three inches, an operation of the greatest danger and difficulty, requiring great dexterity and often a lengthened period of time. The shock, the vaginal lacerations, and the dangers of sepsis are great factors. Shock frequently kills the mother within a few hours. Then contrast, if you will, pubiotomy, its easy performance, its simplicity, its safety. Any surgeon of ordinary skill or recent graduate can readily do it. There is a great deal of sophistry in connection with embryotomy, the frequency of its performance on the living child depends entirely upon the individual and his judgment; one operator performs it in about every two hundred cases; another in about every two thousand, and still another in over twenty thousand cases never saw its necessity or countenanced its performance. Below two and a half inches the improved Cæsarean section is indicated. The alternative of turning when unsuccessful, and the child dying from pressure on the cord, allows basiotripsy or cephalotripsy. The best instruments for use in these cases are Braun's (Figs. 16 and 17). I will not, in this article, consider the improved Cæsarean or the Porro-Veit Cæsarean operation.

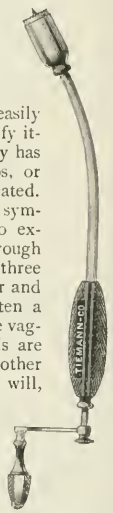


Fig. 17.—Braun's Trephine.

776 Madison Avenue.

Clinical Department.

GUMMÆ OF THE LUNG.[1]

By J. A. THOMPSON, M.D.,
CINCINNATI, O.

Sallie M——, aged twenty-two, is a sporting woman. She is about five feet five inches in height, and unusually well developed. Her weight when in good health was one hundred and seventy pounds. Her health had been perfect until she contracted syphilis, four years ago. The first manifestation of this disease was a local sore followed by an eruption about the genitals. She was treated about six months at this time by a physician well-known to the demi-monde of Cincinnati. One year after the first symptoms appeared, a secondary eruption developed on the face. She went to a good regular practitioner at this time, and was treated about one month, when the eruption disappeared, and she stopped taking treatment. The first symptoms of disease of the lung were noticed in April, 1891. She began to cough and have fever, hectic in type. There was constant pain in the back below the right scapula, with marked tenderness on pressure. The expectoration was very profuse and extremely offensive. The cough was worse at night. The right side of the chest was so painful that she could not lie on it. Hemorrhage from the lung followed any unusual exertion or excitement. Her strength failed gradually, and she lost forty pounds in weight. During this time she was under constant treatment by able members of the profession, so that medicines given by the stomach had been thoroughly tried and had dismally failed.

In January, 1893, she became a patient of Dr. C. W. Orr, by whom I was called to see her in consultation. Her condition at that time was as follows: Weight, one hundred and twenty-seven pounds. She was confined to her bed most of the time. The cough was incessant, night and day, depriving her of rest and causing her to vomit her meals by the severity of the paroxysms. The matter expectorated was a mixture of blood, mucus, pus, and caseous *débris*. It was exactly like the discharge that follows the breaking down of a superficial gumma, and contained shreds of necrotic connective tissue. The amount by actual measurement was one quart daily. It was so offensive that her nurse could not remain constantly in the room. The temperature varied rapidly, as septic fevers do, but was usually 104° F. in the evening, and 101° F. in the morning. Physical examination showed the absence of the respiratory murmur over the right lung posteriorly below the scapula. In front, within the mammary line, extending from the third to the fifth intercostal space, was a circular dull area three inches in diameter. The left lung was normal. Examination of the sputum revealed no tubercle bacilli. The clear history of syphilis, beginning two years before the lungs were involved, the limitation of the consolidation to the lower lobe of the lung, the presence of a gummatous ulcer on the left leg, the character of the sputum, and the absence of the tubercle bacillus, justified a diagnosis of gummæ of the lung. The mass was breaking down, and the general symptoms were due to septic absorption. General treatment had failed to benefit her, and unless

[1] Report of a case to the Academy of Medicine, September 25, 1893.

other means of relief were speedily found, a fatal result was inevitable.

I advised the Downie treatment, tracheal injections of menthol and guiacol dissolved in oil. By this method it was possible to treat the abscess cavity, in part, as we would if it were superficial and accessible to direct medication. Every intelligent practitioner knows we have no medicine which will check acute suppuration when given internally. Our reliance is on topical measures. The Downie method makes it possible to do for the lungs what we do in external abscesses. While we cannot confine our pulmonary treatment exactly to the diseased spot, the antiseptics used being volatile at the temperature of the body makes it certain we can reach any focus of disease to which the bronchial tubes are still open. The rapid absorption of the vaporized remedies, too, makes it possible in this way to procure quick and notable constitutional effects. In the present case the remedy used was guiacol one per cent., menthol two per cent , sol. in liq. albolene. One drachm was injected at a time. This was of course a very small dose, but it was enough to produce marked effects from the first. Menthol given in this way has a marvellous influence in controlling cough. In consumption, with unusually severe cough, two grains of menthol by tracheal injections will control it for twelve hours. The effect in this case was not so lasting. From four to six hours of rest were secured at first. As the secretion diminished and became less purulent from the antiseptic action of the guiacol, the anæsthetic effect of the menthol became more pronounced, so that there would be little cough for ten or twelve hours after the injection. By giving the treatment in the evening the patient was enabled to retain her supper, which she had before vomited, and to get ten hours of refreshing sleep. Daily treatments were continued for two months, Dr. Allen kindly seeing her during my illness.

The history of the case was one of rapid improvement from the time the first injection was given. The fever diminished rapidly, and was gone in three weeks. The amount and character of the expectoration changed quickly for the better. Night-sweats were not noticed after the first two weeks. Several slight hemorrhages occurred, but were never severe. Appetite returned when the paroxysms of cough were controlled, so that she no longer vomited. She gained rapidly in flesh and strength. About six weeks after I first saw her, the breaking down of another gumma in the lung made her very sick for a week, but a continuance of the injections soon controlled the symptoms. During the third month injections were given every second day, or at longer intervals. The constitutional treatment during this time was a continuation of potassium iodide in large doses until the eruption appeared, and then McDade's formula was substituted. Some mild intercurrent illnesses, (diarrhœal attacks) were treated by Dr. Orr. I cannot give any details, because I do not meddle with the general treatment of a case sent to me for special treatment. The attitude of the profession is wrong in this relationship. The specialist is the assistant, not the master of the general practitioner. He should control only in his own work, advise in the general treatment if desired, but the general management of the case belongs to the family medical adviser.

The present condition of the patient is most gratifying. She has gained her normal flesh and strength, she has no cough. Only a little harshness of the respiratory murmur shows where the former consolidation was located. The portion of the lung that collapsed from closure of the bronchi has expanded, and the normal murmur is heard over it. I see her occasionally with small ulcers in mouth or throat, showing that the syphilitic poison is still active. But the cure of the lung trouble is complete.

The reasons that made me choose the Downie treatment for this case apply equally well to cases with tubercular cavities in the lungs. These become, through secondary infection by germs of suppuration, practically abscess cavities. Much of the fever and all the night-sweats of consumption, it is reasonable to suppose, are due to septic absorption. The rational plan of treatment is to disinfect the suppurating cavities, and in the lungs this can only be done by tracheal injections. The cough of consumptives can be controlled for hours by this method. Final results will probably not be as brilliant as in pulmonary syphilis, but the relief afforded the sufferers makes the method one worthy of more general use.

A CASE OF ACUTE IDIOPATHIC GLOSSITIS.

By CLINTON WAGNER, M.D.,

NEW YORK.

J. B——, aged thirty, a native of Roumania, occupation carpenter, was admitted into the Metropolitan Throat Hospital suffering from acute idiopathic glossitis. With great difficulty he made the following statement: About five days ago his tongue became painful and very sensitive to the touch, upon the superior or dorsum surface, near the tip or anterior extremity; swelling of the organ rapidly followed. At the time of his admission into the hospital the tongue was enormously swollen, œdematous on the lateral and under surfaces; the dorsum tense, firm, and rigid to the touch, indentations from pressure against both the upper and lower teeth; it filled almost entirely the oral cavity and protruded considerably beyond the lips, there was constant dribbling of saliva; speech almost impossible; he was very weak, respiration laborious, expression anxious and indicating intense suffering; deglutition greatly interfered with, and unable to swallow nourishment, except milk, slowly, and in very small quantities at a time. There was no history of syphilis, nor evidence of tuberculosis, nor had the tongue sustained in any way a traumatic injury. A careful digital examination failed to detect an inflamed condition of the maxillary bones, or an alveolar abscess; his teeth appeared to be in good condition and unusually well preserved. The sublingual gland was swollen, firm and hard, and imparted no sense of fluctuation to the touch, but on the right side, and near its posterior border, was extremely sensitive to pressure. At this point I made a free incision from which escaped an enormous quantity of thick, creamy, fetid pus. A probe was introduced, which I carried several inches upward and backward, showing that the body of the tongue was involved, and was undoubtedly the source of the pus. With the escape of the pus subsidence of the swollen tongue began.

REPEATED AND PROFUSE HEMORRHAGE SUBSEQUENT TO PUNCTURE OF A MEIBOMIAN CYST.

By FRANCIS M. CHISOLM, M.D.,

BALTIMORE, MD.

THE subjects of hæmatophilia are comparatively so few that it is seldom one comes under the care of the ophthalmic surgeon. Now and then, at long intervals, one appears; and since the physical development of these so-called "bleeders" differs in no way from an ordinarily healthy and robust person, it is only after the surgical work is done that their peculiarity is manifest.

The following case, coming recently under my care, was a well-developed, muscular mulatto man, thirty-five years of age, weighing one hundred and seventy-eight pounds, whose only deviation from health had been an occasional sore throat. The annoyance for which he sought treatment was a small, painless tumor on his right upper eyelid, diagnosed a tarsal cyst. The operation for its removal was by puncture into the sac from the conjunctival surface, the contents expressed, and the interior of the sac curetted. Only a few drops of blood were lost during this procedure, and the patient was dismissed with instructions to return for inspection in a few days. A mild astringent, antiseptic lotion was given him to drop in the eye. Four days after the operation he came to the office

with his eye bleeding profusely, covered up with two handkerchiefs, both saturated with blood. This was the fourth attack of bleeding, he said, since the operation. One was on the afternoon of the second day, another that evening, and the third late that night. This last continued several hours before it stopped spontaneously; the previous ones had been arrested by a liberal use of hot water. The hemorrhages were without provocation, came on suddenly, and were copious enough to saturate three or four handkerchiefs. Relief had come only after several hours' duration. He thinks the loss from the night bleeding alone was fully one pint. Examination of the eye showed that the hemorrhage was from the puncture in the lid made for the emptying of the cyst. A galvanocautery loop was first applied to the wound, with the hope of putting an end at once to the bleeding, but on removing the pressure of the ring forceps, blood continued to well up from the puncture as before the cauterization. A deep stitch was then taken across the wound and the threads drawn tightly. With the opening thus completely closed, all bleeding was permanently stopped. On inquiry, this man recollected that in previous years he had had teeth extracted, with so much hemorrhage following, that a physician had to be appealed to for relief. There had been no recurrence of the trouble when I again saw him, three days after the application of the suture, and the lid looked well.

114 West Franklin Street.

PAINLESS DENTISTRY.

By ROSWELL O. STEBBINS, D.D.S.,
NEW YORK.

For fourteen years I have endeavored to devise and adopt methods in operating upon teeth, for very sensitive and nervous patients, with as little pain and shock to the nervous system as possible. Sharp, well-tempered instruments, of proper shape, in the hands of a careful operator, will cause less pain in excavating the cavity of a tooth, than the best local anæsthetic or obtundent applied to the tooth, if dull, ill-shaped instruments are used with force enough to crush down the tooth structure, which is generally the case, as the majority of dentists are not mechanics, or do not care to soil their hands and take the time to make, or obtain, the proper instrument to be used.

The dental engine, so often looked upon as an invention of torture, has gained this unenviable reputation by the improper use to which it has been put; the motive power, over which the operator ofttimes has no control, propels the instrument with such rapidity that the friction causes intense pain, more especially when the drill or burr is dull. When the regulating of the speed of the wheel is under absolute control of the operator, the excavating of a cavity by the use of a sharp drill or burr, of proper size, causes so little pain or discomfort that the most sensitive patient does not object to its use. Yet in many cases it is the fear and dread that the instrument will cut a little too near the nerve, and that the operator will not stop when asked, as he has promised, that upsets the patients' nerves, leaving them in an excited condition that increases the possibility of causing pain tenfold. To gain the confidence of patients and assure them that you are aware that a very sensitive organ is about to be operated upon, and that you will use every means to avoid hurting them, will greatly lessen the possibility of causing pain. For patients to know that it would be in their power to stop the engine instantly, without the knowledge of the operator, would so lessen the dread of the use of the engine, thereby facilitating the excavating of a cavity, that the most sensitive patient would not object to its use. I have devised a break by which the patients, with a cord held in their hand, can stop the engine instantly, and with the assistance of an obtundent, can truthfully say that more than the majority of operations in dentistry can be made painless.

The brake consists of a pair of pliers, one handle of which is made fast to the upright of the dental engine; the other handle is closed by pulling the string which the patient holds, thereby clamping the belt, and stopping the engine instantly.

55 West Forty-fifth Street.

A NEW AND RAPID METHOD OF ANÆSTHESIA.

By WILLIAM S. MAGILL, M.D.,
CHICAGO, ILL.

As the first American to employ this method, it may be permitted me to invite the attention of American surgeons to this subject by this brief notice.

The method was devised and developed, during the summer and fall of 1892, by Dr. Bourbon, anæsthesist of Hôpital Bichat, Dr. Hartman, acting surgeon, and myself, and, since its introduction, is the preferred method in the surgical service of Professor Terrier, at Hôpital Bichat. The modus operandi cannot be better described briefly than is done by Professor Terrier, in his communication of the subject to the Société de Chirurgie of Paris,[1] October 19, 1892.

"The bromide of ethyl should be given in large doses. After pouring it abundantly (about three grammes) upon a folded towel, it is placed over the nose and mouth of the patient, who is told to breathe deeply. Generally at the second or third inhalation a slight agitation appears, but at the fifth or sixth the anæsthesia is complete, with total loss of consciousness. With the continuance of this anæsthetic, in a moment, sometimes preceded by tonic contracture, the complete muscular resolution is accomplished, with congested face and dilated pupil. At this moment the towel saturated with ethyl bromide is rejected, and another upon which chloroform is poured, is substituted in its place, without allowing any interruption of anæsthesia in changing. The first dose of chloroform only should be fairly strong (one gramme). At this moment the operation may be commenced (about three-quarters to one minute since the commencement of the anæsthesia). The facial congestion diminishes little by little, the pupillary dilatation gives place to retraction; in a word, the transition from the anæsthesia of the bromide to that of chloroform is accomplished without the slightest interruption of the sleep. From this moment the continuance of the anæsthesia is done in the ordinary way (chloroform in small and regular doses). The difference is simply that the complete anæsthesia is immediate, instead of resultant of a period often long which is necessary in the process of chloroform anæsthesia." [And more so in case of employment of ether.]

The matter in brackets is not a part of Professor Terrier's communication, but inserted as explanatory.

It will be seen that the duration of the anæsthesia may be prolonged at the will of the operator. Experience has demonstrated that by this process a remarkably small quantity of anæsthetic agents suffices for complete and protracted unconsciousness, and that by reason of the smallness of the quantity used, the awakening of the patient almost immediately follows the cessation of administering the chloroform.

I have performed a complete anæsthesia for ovariotomy by Professor Terrier, with the administration of three grammes of ethyl bromide and twelve grammes of chloroform, recovery from sleep immediate, and no subsequent nausea. Duration of the complete anæsthesia thirty-two minutes.

This is only one of many similar cases which will be found in the publication of the clinical studies. How many anæsthesists are there who can obtain a complete resolution of a vigorous subject with twelve grammes of chloroform only?

[1] Bulletin de la Société de Chirurgie, vol. xviii., No. 10, November, 1892, pages 626-627.

The advantages claimed for this method are:

1. Rapidity, a complete anæsthesia, which allows the commencement of the operation in one minute's time after the first inhalation of the anæsthetic.

2. Doing away with all violent agitation on the part of the patient, so common when chloroform or ether alone is used.

3. On account of the dissimilar physiological action of the two anæsthetics employed, the dangers attributed to the use of chloroform alone are in a great measure eliminated by the counter-action of the ethyl bromide previously administered.

4. An almost entire absence of post-operatory nausea.

In February of this year this method was introduced in the service of Dr. Segond, at the Maison de Santé, the City Hospital of Paris, by Dr. Malherbe, and immediately adopted by Dr. Segond for all of his work, to the exclusion of other methods. It was my privilege to introduce this method in the service of Dr. Monod, at Hôpital St. Antoine, in April of this year, which led to its adoption as the current method throughout his wards. Dr. Richelot, of Hôpital St. Louis, has spoken with considerable favor of this process of anæsthesia, in the discussion at the Société de Chirurgie, and I am informed that in his service he employs it in preference to all others, in cases where affections of the heart cause any apprehension from the use of chloroform alone.

The patients who have been subjected to this method of anæsthesia by my colleagues and myself have pronounced in its favor, and in cases of an anæsthesia to be repeated for them have asked for this method.

Convinced of its general utility, I would invite its trial in the work of American surgeons, that it may be widely known, experimented, and thoroughly studied and discussed.

In a short time a monograph on the subject with complete bibliography, chemical and physiological aspects, and several hundred detailed clinical studies of its application, will be published in Paris as a complete history and introduction of the subject. There appears to be no element of danger in the combined employment of these two agents for a complete anæsthesia, and the simplicity of its application will be evident on trial.

A CASE OF STRAMONIUM INTOXICATION.

By CHARLES O. MAISCH, M.D.,

NEW YORK.

The comparative rarity of these cases, at least in our larger cities, and the marked manifestations exhibited in this instance, lead me to place it on record.

Some three months ago, I was summoned early in the morning to Mrs. B——. The impression made upon me was that I had to deal with a case of acute alcoholism. Patient, a woman about thirty years of age, well-developed, robust and healthy in appearance, retired perfectly well and sound, one hour before, and fell asleep shortly after lying down. Had not been exposed to any contagion, "nor had she taken any stimulants or medicines." Shortly after falling asleep her husband noticed that she became very restless, "breathing deeply and loudly," and upon rousing her, she appeared "out of her mind and wild." Pulse, 130 and thready; temperature, 100.2° F.; pupils markedly dilated; conjunctivæ deeply injected and reddened; eyes wildly staring and restless. Face and chest covered with an erythema like that of scarlatina or that caused by belladonna. Tongue and fauces dry and parched; respirations shallow and increased to 35 per minute. Wild and active delirium; hallucinations of sight and hearing. Complains of intense thirst and severe frontal headache. Patient almost unmanageable, throwing and breaking everything within reach, and constantly looking under bed and searching closets for strange men and animals.

The symptoms were those of atropinismus, and after administering copious draughts of warm water, salt, and mustard to gain time, I gave morphine sulfuric 0.03 (gr. $\frac{1}{2}$) subcutaneously.

Upon declaring to her husband that the patient must have imbibed something that was poisonous, he learned from a servant that her mistress had taken some kind of tea before retiring.

Upon being shown what remained, I recognized the toothed, ovoid thorn-apple leaves, the bitter, pungent, and metallic taste that is peculiar to it.

On further search a package of compressed stramonium leaves, such as is sold in the stores, was found. Diagnosis was established.

One hour after the exhibition of the morphine salt, the patient was resting quietly; an ice-bag had been put to her head and morphine sulfuric 0.015 (gr. $\frac{1}{4}$) was ordered every four hours, and cold black coffee for the thirst, which still was intense. The next forenoon, when I saw my patient, she had become perfectly rational; the erythema had disappeared, as had also the throat symptoms. She had not the least recollection of what had occurred during the night after having taken the tea, which was intended to restore her menstrual flow. The mydriasis lasted for almost four days.

It may be of interest to know how much of the drug had been taken. The package contained one ounce of the dried leaves, of which one-half had been used in preparing the infusion; to this was added a cup (eight ounces) of boiling water, and after standing one-half hour, she took two tablespoonfuls. From this we may deduce that one ounce of an infusion of the strength of 1 to 16 (considerably weaker than is officinal [1 to 10]) caused toxic effects in this case.

The quantity is certainly not a large dose, and it is to be presumed that the woman has an idiosyncrasy for the drug.

Patient made a complete recovery.

90 MADISON STREET.

Progress of Medical Science.

A Caution in the Use of Trendelenburg's Posture in Cœliotomy.—In the current number of the *New York Polyclinic*, Dr. H. C. Coe, of this city, sounds a note of warning with reference to the now commonly employed inclined posture in abdominal surgery. "There is," he says, "danger of secondary hemorrhage. When a patient lies for an hour or more with hips elevated, the blood-supply to the pelvis is naturally diminished. The return to the dorsal position determines an increase in the venous return. This ordinarily occasions only a trifling oozing which causes no anxiety, but there may be a going over beyond the line of danger, as his experience shows."

His remarks are accentuated by the careful record of two cases which proved fatal from this very cause. In the first case cœliotomy was done for an intra-ligamentous cyst on the right side and a smaller ovarian cyst on the left. The latter was adherent to the pelvic floor and to the uterus. Both tubes were found free from pus, but were thickened, enlarged, and adherent. After enucleation in the usual manner, with but little loss of blood, the customary technique was followed in regard to closing all bleeding points. After lowering the patient to the dorsal position the pelvis, which had been packed with sponges, was again carefully examined, and its cavity packed with strips of gauze to stop the slight oozing which still persisted, and the ends of the strips were brought out through the lower angle of the abdominal wound. At the close of the operation the patient's general condition was not good. Pulse was 130 and there was much shock. The house surgeon, upon his own responsibility, elevated the foot of the bed eight inches, but the patient showed all the evidences of internal hemorrhage, though no oozing appeared on the dressings. Three hours and a half later, a removal of a few inches

of the gauze showed that the latter was saturated with blood. The wound was reopened, clots found and removed, and the cavity irrigated with a hot saline solution. No bleeding point could be discovered. Intravenous saline infusion, oxygen, and hypodermatic use of strychnia and camphorated oil failed to rally the patient, who died in twelve hours after the operation. It had been found on reopening the wound that the hemorrhage had ceased, and death seemed to result from shock rather than from loss of blood. The writer states that, had the patient been kept on the back when in bed, the blood would probably have remained in the pelvis, stained the gauze, and its escape been earlier recognized. It was believed that the fatal oozing was due to venous return immediately after the operation, when the patient was released from the Trendelenburg posture.

The second case was of the same general nature, but on the third day suppression of urine set in and carried off the patient two days later. At the autopsy the ligatures were found to be secure, and it was impossible to locate the exact source of the hemorrhage. A large clot was found dissecting up the peritoneum from the base of the broad ligament, as high as the kidney; it represented fully a pint of blood, which being unable to make its way externally or into the peritoneal cavity, had, as the patient was in the inclined position, gravitated in the direction of least resistance. A similar condition has been noted in cases of subperitoneal rupture of the parturient uterus. The abdominal viscera were normal (there being no evidences of sepsis) with the exception of the kidneys, which were the seat of chronic interstitial nephritis; the latter, in the opinion of the pathologist, was the cause of death.

Dr. Coe regards it as a cardinal principle to be observed in the performance of cœliotomy in the elevated position, that the abdominal cavity should be entirely shut off from the pelvis by flat sponges or gauze pads, so that fluids shall not come in contact with the intestines. If this is properly done irrigation is rarely necessary. In order to prevent secondary hemorrhage, the physician should satisfy himself by repeated examination that the change in posture is not followed by hemorrhage. Time should be taken at the operation to secure every bleeding point, as it is much safer to lengthen the duration of the surgical procedure than it is to reopen the abdomen later. The latter is almost invariably fatal. Of five cases in which Dr. Coe reopened for hemorrhage (two of his own and three for other surgeons), only one was successful; he is cognizant of a dozen other cases in which the result was equally unfavorable. In order to save the patient, the hemorrhage must be recognized promptly, while she has still sufficient strength to stand the manipulation necessary during the second operation. This implies careful watching by an experienced observer (not a nurse), and considerable judgment, since the symptoms of hemorrhage are often so obscure as to be indistinguishable from shock; hence the value of a drainage-tube—perhaps its most useful function.

Finally, Dr. Coe condemns the practice of elevating the bed within two or three hours after cœliotomy. In every case a certain fluid exudate accumulates in the pelvic cavity. If allowed to remain there, it will probably be absorbed. In any event, it is much safer there than diffused among the intestines. To elevate the pelvis when drainage is sought, defeats the very end aimed at. If it is thought proper to elevate the foot of the bed to overcome heart failure or cerebral anæmia, it should be done only after a most searching examination to exclude every evidence of progressing hemorrhage.

Total Extirpation of the Prostate.—According to the Vienna correspondent of the *Medical Press*, Professor Dittel raised this question recently in the Society of Aerzte. In the early part of May a young man, aged thirty-two, a laborer, came to hospital complaining of great loss of blood. The first opinion that was formed was stone in the bladder, but on passing the sound no concretion could be discovered. On pressing well down into the abdomen a large swelling, somewhat elastic, was found at the lower part of the bladder; from the anus the prostate was found greatly enlarged, but its dimensions could not be estimated, as its posterior margin could not be reached. Urination was frequent and difficult, while the catheter gave relief at all times. After exhausting all the phenomena in the diagnosis, it was concluded that the prostate was damaged by some growth. The endoscope revealed a large swelling lying to the right of the channel, in which was a small depression whence the blood slowly oozed out, while the whole surface was smooth and of normal appearance. From his previous experience of removing the prostate he was disinclined to take this step. He therefore resolved on opening the bladder above the pubis, through which he discovered the source of bleeding from the large prominence at the neck of the bladder. With a sharp scoop he removed a large quantity of the smooth surface, but found the morbid growth too extensive for this operation. He consequently resolved on making an opening below, cutting from the coccyx to the anus; he was thereby enabled to enucleate the former, and with an oval incision reached the tumor by the right side of the rectum; the capsule of the prostate was opened and the whole removed. On microscopic examination this was found to be a fibroma, but further classification was deferred at the time. The wound was filled with iodoform gauze and the bladder drained. On the filling of the bladder not a drop could be discovered in the wound, although after a few days a urinary odor was observed on the dressing, which led to the presumption of a perforation being present. Beyond this no other bad symptom has accrued, and the wound is nearly healed. With this favorable result Dittel is now prepared to change his opinion. Prior to this he performed an operation three times without any success, and before commencing the present operation resolved that he would try any other method if possible than extirpation. He is now inclined to believe that there are certain conditions of the urethra that may favor this operation, one of which is its course through the prostate, which he is now convinced lies nearer to the commissura posterior. With this knowledge he thinks the prostate can be more accurately removed without injuring the urethra. In all cases, therefore, where the tumor of the prostate implicates the urethra he is convinced that extirpation is impracticable, as it cannot be performed without injuring the canal, and under circumstances of this kind he thinks it would be better to remove one-half of the prostate. In some cases he thinks posterior or sacral removal would be more advantageous and have a better chance of success.

Pernicious Anæmia and Degenerations of the Spinal Cord.—According to Dr. W. Minnich, Professor Lichtheim was the first to call attention to the occurrence of degenerations of the spinal cord in association with pernicious anæmia (*The Lancet*). This was in 1887, at the Congress für Innere Medicin, the special degeneration which he described being in the posterior columns. The three cases to which he briefly drew attention are more fully described in this paper as well as three additional ones. The first case showed profound anæmia, there were paræsthesiæ in the arms, the gait was slow and feeble, but the reflexes were normal. Evidences of the presence of bothriocephali were present in the stools. Degeneration was found to be well marked in the posterior columns, but the posterior roots were normal. In the second case there were anæmia and weakness, with numbness in the fingers and feet; later there were impairment of sensibility in the lower extremities and loss of the knee-jerks, but no ataxy. The changes in the spinal cord were similar to those in the first case. In the third case there were weakness, anæmia, and sensory impairment in all four limbs. There were also ataxy and Argyll-Robertson pupil, and the knee-jerk was lost. Here, also, well-marked degenerations of the spinal cord were

found in the posterior columns, while the posterior roots and the peripheral nerves were intact. The fourth case also showed marked anæmia, with weakness and paræsthesiæ in all four limbs. The gait was at first ataxic, but later spastic, and sensibility in the lower extremities became impaired. The knee-jerks were exaggerated and there was slight paresis of the bladder and rectum. In the spinal cord there was degeneration in the posterior columns, and also in the posterior part of the lateral columns. In the cervical and upper dorsal cord there were also isolated foci of myelitis. The posterior roots and peripheral nerves were unaffected. Although in this case the characteristic signs of pernicious anæmia were not present, Dr. W. Minnich suggests that it was essentially of the same character as the preceding cases, and that the posterior columns were first affected, the involvements of the lateral columns occurring afterward. The next case showed marked motor weakness of the arms and legs, anæmia, and dropsy. Ova of bothriocephali were present in the stools. There were ataxy of the legs and sensory impairment in all the limbs. The knee-jerk was present. At a later stage there was great weakness of the limbs with much sensory impairment, the knee-jerk was feeble and there was incontinence of urine. The pupils were normal. In the cord there was degeneration in the posterior column and also in the lateral and anterior columns, and again the posterior roots were unaffected. The sixth patient had long suffered from great anæmia, and when he came under observation he was very pale and complained of a feeling of fatigue in both lower extremities. There were marked sensory impairment and pains in the limbs. The knee-jerk was exaggerated and there was loss of control over the bladder and rectum. Delirium was present before death. In the spinal cord there was found a marginal degeneration both in the lateral and posterior columns, while the posterior roots peripherally were intact. All the patients were men and ranged in age between thirty-six and fifty-eight. It is worthy of note that in two of them evidences of the presence of bothriocephali were found. The cases form a most important group, and it may be, as is suggested in the paper, that the sclerosis is the result of some toxic influence which is a concomitant of the blood state. The presence of anæmia, parasitic worms, and nervous symptoms naturally suggests the analogy of beri-beri, in which all three are frequently associated; but in that disease the nervous symptoms are, according to our present knowledge, the result of changes in the peripheral nerves.

Gonorrhœal Peritonitis in the Male.—Circumscribed gonorrhœal peritonitis may occur in men as well as in women. Epididymitis is always present at the same time. Whether the peritonitis is caused by gonococci is not yet determined. The routes of invasion are: 1, the vessels of the spermatic plexus; 2, the vas deferens; 3, the lymphatic vessels of the vas deferens. A case reported by M. Horovitz illustrates the last-named path. A man, thirty-one years of age, contracted gonorrhœa on December 18th. He treated his own case by means of cold applications. On the 29th he was attacked by epididymitis. Suspension, ice, and Epsom salt were employed. On January 1st, he experienced severe pain in the region of the great sacro-sciatic foramen and extending into the hip-joint. The pain was increased by attempts to move the limb. On the following day the temperature was 102.7° F.; the man had a chill, suffered from sharp pain in the right iliac region, and sickness of the stomach. The abdomen was greatly distended and very sensitive to pressure. Recovery took place in three weeks.—*Medical Bulletin.*

Multiloculated Pleural Effusions.—Rudolph draws attention to the practical importance of this form of pleural effusion. The loculi may be quite separate from each other or may communicate. The character of the effusion must depend on the causation; in empyemata the tubercle bacillus, the streptococcus, the pneumococcus play the chief part. The loculi may even contain different kinds of fluid. He records a case in which the patient had an empyema on the left side. After 750 c.cm. of pus had been evacuated, the physical signs over the præcordium remained unchanged. At the necropsy, in addition to a purulent pericarditis and an endocarditis, another empyema was found between the mediastinal pleura and the lung, a situation which the author thinks a frequent one for the second empyema. In the third and fourth cases there was a serous effusion in patients with early phthisis, and it was only when the second loculus was tapped that the physical signs cleared up. Want of correspondence between the amount of fluid and the extent of the dulness is an important sign. Thus the fluid should be measured, and the chest examined after the evacuation. The persistence of fever in the absence of other cause for it should suggest a second loculus. The prognosis depends on the primary disease, and on the recognition of the condition. If the effusions are serous and small, the salicylates are useful. Tapping may be required. If the effusion is purulent the chest must be incised, and according to the author a piece of rib removed.—*Centralblatt für Klinische Medicin.*

A New Method of Reducing Dislocation of the Lower Jaw.—Dr. Roth describes his method of reducing maxillary dislocation as follows: 1. The patient seated in an ordinary chair, the operator stands before him with one foot placed slightly to the right side and the other just in front of the patient and in the middle line. 2. He then flexes himself at the hips and causes the patient to lean forward and to place his forehead at the middle of the operator's sternum—but this position varies with the size of the patient's head. 3. The operator now flexes his head so that his chin grips the patient's head about the upper part of the occipital bone, thus acquiring a firm hold with the head well under control between his chin and chest. 4. The thumbs, protected in the usual manner, are placed in the patient's mouth and the fingers of both hands grasp his lower jaw. The author considers that his method has the following advantages: *a*. The operator has the head under perfect control and perfectly fixed; *b*, the line of force exerted by the operator's hands acts in the same line as the resisting force exerted by the operator's chin; *c*, the operator's elbows, being well flexed, he can exert a greater power by the force acting through the thumbs close to the shoulders; the terminal phalanges will be found to have greater muscular power; *d*, the patient's head is in a better position for reducing the dislocation; and *e*, the operator needs no assistant, and does not inconvenience his patient by excessive pushing and pulling the head about during the reduction.—*The Lancet.*

Ligature of External Carotid.—Lipps (*Archiv für klin. Chir.*, Bd. 42, Heft 1) has collected 130 cases of ligature of the external carotid artery, in 12 of which this artery was tied on both sides at the same operation. Of the total number of cases 32 were fatal, and in only two of these was death caused by the operation itself. In both instances the thrombus in the external carotid extended to the common carotid and gave rise to cerebral embolism. In 10 cases in which the operation had been performed for profuse hemorrhage, death was the result of loss of blood and consequent collapse. The author regards this operation as preferable to ligature of the common carotid in those cases in which either might be considered as applicable. The former procedure is much less fatal in its results, and both external carotids may be tied at the same time without much risk As a rule, ligature of the common carotid should, it is thought, be reserved for those cases in which the surgeon has to deal with a very pressing emergency, hemorrhage, for instance, which could not be treated with any good prospects of success by ligature of the external carotid. The remote results of ligature of the external carotid, the author acknowledges, are not always good, but it is doubtful whether in such cases ligature of the common trunk would have had better results.

MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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MEDICAL EDUCATION IN AMERICA AND ENGLAND.

THE *Lancet*, in its educational number of September 2d, has devoted some space to education in America. While it tells the truth in most respects, it seriously errs in its final conclusion, viz., that, on the whole, medical education at the best schools in this country is inferior to that in England.

Perhaps any protest against this judgment will be taken simply as an evidence of patriotic vanity. We think, however, that this element in our judgment has been sufficiently considered. Yet we do not hesitate to say that, at the present time, a medical student can get a better training in New York, Boston, Philadelphia, Baltimore, and perhaps some other cities, than in London. It is very generally known, outside of England at least, that the English school has suffered from a steady decadence in the last few decades. This decadence has not been so noticeable as that in Paris, because London was never the teaching centre that Paris has been. Yet at the present time, Paris, with all its defects, ranks even higher than London. We can speak dispassionately here. Every year young men come for advice as to what part of Europe they should go to seek further instruction. Germany is oftenest advised, Paris sometimes, London never, except for some special reason.

The cause, as the *Boston Medical and Surgical Journal* states, is partly the absence of laboratory research, partly the lack of concentration of the medical and surgical teaching. On the other hand, laboratory work is very rapidly becoming an essential part of every American student's course. We have already, in this city and Brooklyn, four richly equipped institutions for this kind of teaching, to say nothing of the post-graduate laboratories.

The deficiencies in the best American colleges are the imperfect preliminary training and short courses. But these defects are being rapidly eliminated and will soon cease to exist. Unless London does something to change its present methods, it will soon become the Valkyrie of medical science.

The Cost of a Medical Education, according to the *Hospital*, is, in London, $400 to $500 per year, for five years, plus $700 to $1,000 in fees, making a total of $2,700 to $3,500. In this city it would be $600 a year for three years, and $300 for fees as a minimum estimate.

THE LONGINGS OF PREGNANT WOMEN.

THERE are certain phases of disease having a basis in clinical observation about which more or less tradition has clustered. Such a one is the longings of pregnant women. Taught to every class of students as a regular accompaniment of the grand condition these unnatural desires are, we believe, the exception in actual practice rather than the rule. Yet the subject is one well worthy of study for it has its psychical as well as its physical peculiarities.

A recent paper, read before the Obstetrical Society of London, by Dr. Giles, gives a careful review of the whole topic. He divides the "longings" into two classes—natural and healthy, or unnatural and unhealthy. He considers especially the former, and bases his views upon a careful analysis of three hundred cases. The cause of these peculiar desires may be due to one of three causes. 1. They are due to a desire for something to check the feeling of nausea. This applies especially to sour things. 2. They are the expression of an instinctive want for some class of food in the altered condition of pregnancy. 3. Dr. Giles thinks that in many cases they are due to a kind of auto-suggestion prompted by a popular tradition and gave evidence in support of this view. He shows that the frequency of longings markedly decreases as parity increases. The subject, he thinks, is important from the point of view of the feeding of infants.

In the subsequent discussion Dr. Doran pointed out the psychical effect upon women of the ancient and deeply rooted tradition that patients were naturally expected to have these longings and consequently they had them. The question naturally arises, Are they mere whims or do they have as a starting-point some actual physiological need? This latter point is very probable in view of the fact that the articles of food longed for are mainly vegetables or things containing the vegetable acids. On the other hand, Dr. Giles remarks that "auto-suggestion" may here play the same part which it does in hypnotism, that is, a patient starting with the feeling induced by the conversation of her friends that she ought to feel certain cravings, unconsciously persuades herself that she does actually experience them. Probably both views are correct, the former explaining some cases and the latter others.

As bearing upon the psychical view we must again lay special stress upon the fact that these cravings are far more common in primipara, to whom the reproductive act is a new experience. They decrease as the number of pregnancies of the patient increase. It is somewhat suggestive that the especial article of food most desired is the succulent apple. It will not escape the notice of either the biologist or theologian that in view of the nature of fair woman's yielding to the wiles of the seductive ophidian, this desire is another illustration of, to the one, reversion of type, and to the other, of inherent original sin.

Another writer upon the same topic calls attention to the "popular belief that unless the craving is gratified the offspring will be marked by an impression or outgrowth corresponding to the article denied to the mother; or, failing this unequivocal sign of evolutional dissatisfaction, that the infant will be restless and discontented until, and unless, he or she shall have partaken of the par-

ticular article or substance demanded." There are not wanting a number of more or less authenticated instances of what sceptics will probably qualify as mere coincidences. The resemblance of the marks with the particular articles of maternal longing will be found almost invariably to require a large dose of faith or credulity to recognize. Thus, only a few days since, a case was recorded in which the mother, having been unable to gratify her craving for apples, the child was born with a pedunculated growth on the arm, which the wiseacres at once described as the fleshy analogue of an apple. The same observation holds good in respect of the comparatively common strawberry mark, which is, of course, neither more nor less than a nævus. Furthermore, these longings appear almost exclusively among women of the neurotic type, and rather curiously it was found that they were less common among unmarried women than in those joined in lawful wedlock. The explanation given is that there is obviously less scope for a girl-mother to cultivate fancies than in the case of young married women, whose word for the time being is law, and who are enabled, in virtue of superstitious tradition, to impose their whims on their friends; in other words, to take advantage of the situation and insist upon indulgences which would not reasonably be granted under other circumstances.

THE GENTLE TOUCH.

Mr. Bilton Pollard, in his address before the University College, London, gave a very timely and practical hint regarding the kindly treatment of hospital patients by internes. We regret to say that such a lesson is occasionally much needed in many of our public institutions, and the heeding of it will give that necessary exercise of the finer humanities which fits the graduates for the higher grades of successful practice among the so-called cultivated classes. The lecturer very properly maintains that an interne who can, by his gentle methods and appreciative sympathy, win the love and friendship of his poor and dependent patients, has gained as important an experience as any he can obtain in the hospital ward. Not that the ordinary hospital attendant intends any wrong, but there is, in some instances, a sudden inflation of his importance which invites dictatorial brusqueness, and an indisposition, in the exercise of duties supposed to be more important, to give time and thought to the exercise of the better elements of his manliness, by a compassionate consideration for the sufferings of such as are at his mercy. The cry of agony is never necessary for a diagnosis when the surgeon is the active agent of its production. The man who inflicts unnecessary pain in handling an injured limb is either a bungler or a brute.

The difference between the one who considers the feelings of his patient and the other who does not, is very apparent in the examination of a wound or the manipulation of a fracture. In the former the practised delicacy of touch discovers all that is necessary to know concerning the extent or character of the wound, without a sign of pain from the patient; while the latter, by the pressure and twist in the wrong place and at the wrong time, transforms the patient from a quiet, helpful, and submissive subject, to a shrieking and horrified sufferer. Even the most ignorant patient takes such lessons to heart. With a rich patron the question of choice could very easily be settled, but usually the sick or injured pauper must submit to the inevitable. When we consider that the highest science aims to mitigate pain, we can hardly claim superior accomplishments or greater depth of learning for the man whose very touch is signalized by a howl.

While it may not be possible for everyone to obtain this refinement of manipulation, there is no excuse for not cultivating it in every instance. Scientifically speaking, a sick beggar is the same as a sick king. Their nervous systems are made alike, their reflexes are similar, and their pain-centres are equally responsive. The one who can learn early to treat them from the same standpoint of appreciation becomes the sympathizing friend of both, and will be as welcome in the palace as in the hovel. There may be a reason why all cannot be great physicians, but we all can be gentle ones. Even in our most desperate cases, when all other remedies fail, the very last to lose its influence is the kind word fitly spoken.

MR. HART ON QUARANTINE.

Mr. Ernest Hart delivered an address before the Section on Public Health of the Academy of Medicine, last week. His topic was cholera and quarantine, and he presented forcibly the very familiar English views upon this subject. The English practice of discarding quarantine was adopted in 1866, and the Continental governments were gradually adopting it. Mr. Hart said that there had been no epidemic in the past fifty years which had not been due to quarantine. He cited in particular the last cholera epidemic in England, which killed six thousand people and laid hold of sixteen thousand more, and said the disease had been communicated to the people by a family which had passed quarantine and had polluted the water of the river Lee. He believed that an effectual quarantine would be caused alone by a Chinese wall. Quarantine was full of cruelties and commercial dangers, and it enlisted against it the commercial and chivalrous instincts of man. The moment that you made cholera contraband it would be smuggled in.

The English health authorities had a system of medical inspection which did not pretend to be exclusive. It confined itself to the sick, and did not inflict cruelties and indignities upon those who are not sick. That is to say, in cases of ships coming into port, only the sick would be held. This had a tendency to discourage the smuggling in of cholera, because it was for the interests of ship captains to own up and tell about the sick, knowing that those of the passengers who were well would not be held.

There was nothing as easy to keep out and deal with as cholera. The fear of cholera had saved more people than all the epidemics had destroyed and could destroy in fifty years. The knowledge that it is a disease due to dirty water, and to filth and uncleanliness, had compelled local authorities to take such measures as would prevent the disease. Since 1866, when the quarantine did not keep out cholera, there had been spent in the cities in England £22,000,000 in supplying pure water, and £12,000,000 had been expended on sewage works. Now they could snap their fingers at cholera.

The views thus enunciated are quite well known to American sanitarians, and we believe it to be the opinion here that we will eventually abolish quarantine in its

strictest sense. But the sanitary organization of the country is not yet perfect enough to allow it. Neither is the drainage and water-supply of our cities and towns sufficiently perfect to justify the inspection method followed by the English.

DOCTORS AND REPORTERS.

In a recent address on journalism, Mr. Charles A. Dana indicated certain qualities as desirable for the journalist, which we should say were also particularly necessary for a physician. Mr. Dana says: "There is no question that accuracy, the faculty of seeing a thing as it is, of knowing, for instance, that it is two and one-quarter and not two and three eighths, and saying so, that is one of the first and most precious ends of a good education. Next to that, I would put the ability to know how and where most promptly to look for what you don't know, and what you want to know. Thirdly, I would put Dr. Walker's great object, being able to tell what you know, and to tell it accurately, precisely, without exaggeration, without prejudice, the fact just as it is, whether it be a report of a baseball game, or of a sermon, or of a lecture on electricity, whatever it may be, to get the thing exactly as it is. The man who can do that is a very well-educated man."

It is this accuracy of observation which is particularly needed by medical men, and which their training ought to secure to them. We believe that to a large measure it does, and that physicians as a class are the most observant of people. The reporter, unhappily, is taught by the exigencies of competitive journalism to see, or at least to record, a little more than exists. He must have an interesting story, or the blue pencil goes through his copy.

News of the Week.

New York Cancer Hospital.—An examination for position of Junior Surgeon on the House Staff will be held at the New York Cancer Hospital, 106th Street and Eighth Avenue, on Wednesday, October 25, 1893, at 2.30 P.M. The term of service is twelve months; four as Junior Assistant, four as Senior Assistant, and four as House Surgeon. Application may be made to Dr. B. F. Curtis, 307 Madison Avenue, between 5 and 6 P.M. Fully seventy-five per cent. are major operations, and the experience in gynecology and general surgery is especially desirable; the number of surgical cases and operations comparing favorably with any large general hospital.

Pure Milk for Babies and Rules for Dairymen.—The Committee on Dairies, Section on Pediatrics, New York Academy of Medicine, reported as follows: "It having been conclusively demonstrated that a great and dangerous source of contamination of milk comes from dirt and filth from the cow's coat, bag, and udders, and from the milkmen's hands, it is especially requested by a committee appointed by the Pediatric Section of the New York Academy of Medicine that dairymen see that all visible dirt be removed from the cow's coat immediately before each milking, and that the bag and udders are cleansed at the time of milking, and that the milkmen wash their hands thoroughly with soap and water before milking. Antiseptic surgery has proven that absolute cleanliness is a preventive of germ contamination. Milk is a most fertile fluid for germs of all kinds when they have once gained access to it. By means of absolute cleanliness in the manner already indicated the most prolific source of disease from contaminated milk will be avoided. Again, it is an established fact that numerous epidemics of contagious diseases in cities and towns have originated from infected milk, such epidemics having been frequently traced to the milk. Infection of the milk in these cases is generally due to the milkman being in attendance on some patients with contagious disease at the time, or in his handling or cleaning cans or jars in which milk is to be transported, or from the sick themselves performing the same duties, either at the outset of an illness or during convalescence.

"Still another common source of infection is from washing the cans and jars in impure water. Creek water should be regarded as dangerous for the cleansing of vessels. It is therefore urged that only spring water or pure well water be used for washing all milk utensils. We urgently appeal to the dairymen to assist us in preventing this great source of disease and death from the one and only proper food of infants and young children. If farmers would put into practice these simple suggestions, they would soon drive from the market all 'infant foods' which are now so largely sold at enormous profits."

The Red Cross to the Front.—Washington, October 2d. Miss Clara Barton, President of the American National Red Cross, has officially accepted and assumed control of the relief of the sea island sufferers, tendered two weeks ago by the Governor and committees of South Carolina. This implies the housing, feeding, clothing, and nursing of thirty thousand people for eight months, with no aid from the Government and no fund but the direct charity of the American people. Her headquarters and address are at Beaufort, S. C.

The Death of Dr. Charles Slover Allen by Typhoid Fever.—Dr. Charles Slover Allen, aged thirty-eight years, died of typhoid fever at the Presbyterian Hospital, October 15th. He came to town from Larchmont on Friday morning, feeling feverish and sick. At noon on Saturday, at his request, he was taken to the Presbyterian Hospital. His fever increased, and in the afternoon of the next day he died. Dr. Allen was graduated from the Bellevue Medical College in 1881. He was a member of the University Club, Columbia College Alumni Association, Psi Upsilon, Manhattan Athletic and Larchmont Yacht Clubs, American Geographical Society, American Museum of Natural History, and the Metropolitan Museum of Art.

Expenses of the Hospitals.—At the recent meeting of the Saturday and Sunday Hospital Association it was shown that during the year the total expenses of maintaining the thirty-one hospitals under the Association's management had been $1,173,474.32. The thirty-one hospitals received 20,691 patients, of which number 15,417 were treated free, including 193,099 out-door patients. And yet the younger doctors complain of the hard times!

Discovery of the Typhus Bacillus.—A cable despatch announces the discovery of the typhus bacillus by Professor Fraenkel, of Berlin. He claims to have used it with success in immune experiments.

The Death of Dr. Elijah A. Maxwell.—The Medical Board of Randall's Island Hospital hear with great sorrow of the death of their associate, Dr. Elijah A. Maxwell. He was for many years a member of this Board, of affable and pleasant manners he was a warm friend and wise counsellor. Therefore be it

Resolved, That in his untimely death we have lost our most beloved associate and a break is made in our number which cannot be filled. His memory will ever remain among the most pleasant of our lives, and will inspire us with an ideal of professional and manly excellence toward which it would be well for us to shape our future lives.

Resolved, That the loss we mourn is not limited to this Board but is shared by the medical profession as a whole.

Resolved, That to his family we tender our warmest sympathy; and be it also

Resolved, That a copy of these resolutions be sent to his family, a copy entered in the minutes of the Medical Board, and also a copy sent to the medical press.

EDWARD WAITZFELDER, M.D.,
WALDRON D. VANDERPOEL, M.D.,
Committee of the Medical Board.

Death of Dr. Edwin T. Doubleday.—At the last stated meeting of the New York Hospital Alumni Association, April 28, 1893, the following preamble and resolutions were authorized:

Whereas, It has pleased the Almighty Father, in his omnipotent wisdom, to remove from us Dr. Edwin T. Doubleday, a past House Officer of the New York Hospital, an original member of this Association, and its Secretary since its inception; and

Whereas, Dr. Doubleday was, throughout his professional career, a devoted student and an accomplished practitioner, both in the hospital and in his private work; and

Whereas, He was a gentleman who by his kindly nature and his thoughtful interest in others endeared himself to all with whom he came in contact; Therefore be it

Resolved, That we, the members of this Association, do hereby express our deep grief at his untimely death, and our sense of personal loss. And be it further

Resolved, That we tender to his bereaved family our profound sympathy in this their affliction. And be it further

Resolved, That a copy of the foregoing be presented to the family of the deceased, and that it be sent to the medical journals of this city.

CHARLES A. POWERS, M.D.,
GEORGE A. RICHARDS, M.D.,
GEORGE H. COBB, M.D.,
Committee.

Dr. Jesse Lee Morrill, who has been ill with septicæmia, is slowly recovering.

L. Harrison Mettler, M.D., of Chicago, writes, concerning his article on seminal incontinence, that the dose of atropia should be from $\frac{1}{200}$ to $\frac{1}{100}$ of a grain.

The Study of Contagious Diseases.—It is stated that a proposition has been made to the New York City Board of Health to confer upon a staff of three or four physicians the privilege of visiting the hospitals of the Health Department, and so far as may be possible without interfering with the patients, of studying the various contagious diseases.

A Brainy Therapeutist.—A native of Georgetown, Md., has the following sign on the front of his store: "Born with brain within brain i can kure enny kind of misery in a short time with only the best erbs to be used."

The Yellow Fever at Brunswick.—There has been an unusually light rate of mortality in the Brunswick epidemic of yellow fever, which has existed for the past five weeks, and has not yet given any sign of abatement. The rate at other places often ranges from ten to forty or fifty per cent., and has at times gone even beyond fifty; but an examination of the figures from Brunswick, since an early date in September, show that on the average it has not risen above seven or eight per cent. there this year. In the last week of September it was as high as twelve; in the first week of October it was as low as eight, and latterly it has fallen still lower. About five hundred persons have so far been attacked.

The Third Annual Report of the State Board of Medical Examiners of New Jersey.—During the fiscal year now ended there have been examined one hundred and fifty applicants, and one hundred and fifteen certificates have been issued to practise medicine in that State; also eleven certificates in the primary branches, which, while they do not entitle the holders to practise medicine, yet exempt them from examinations in these branches when they take their final examination one year thereafter; of the remaining twenty-four, four withdrew before completing their examinations, giving only thirteen and one-third per cent. of rejections as compared with nearly eighteen per cent. in 1892, and nearly sixteen per cent. in 1891, thus showing very prominently that the candidates have been prepared for their work by their respective colleges with much greater care and thoroughness than in former years. The Board states that its examinations during this year have been even harder than in 1891 and 1892, so that it can very justly claim that it has even in so short a time very materially elevated the standard of the medical profession, at least of the new-comers, in that State, thereby not only benefiting the profession of the State, but the great mass of the people thereof, and that, too, without taking a dollar from the State Treasury, except for the printing of these annual reports. The fees received from candidates, after paying stationery bills, printing, engraving, and mailing certificates, printing laws, rules and regulations, and furnishing examination paper, etc., scarcely pay the travelling expenses of the Board, not to mention the loss sustained in private business during its attendance upon the meetings of the Board; so, too, with the candidates, they are obliged to stay two nights and two days in Trenton, and if rejected, a repetition, besides paying the examination fee and travelling expenses, amounting in all to forty or fifty dollars. Hence the Board recommends that the State pay the examiners a fair salary and then have all the examinations free. That the law acts rather by exclusion than by rejection is proven by the fact that during our three years of existence we have examined only three hundred and ninety-seven candi-

dates, including the preliminaries and those previously rejected, and issued only three hundred and seven certificates to practise medicine, which only equals the number registered each year under the old law.

Typhoid Fever is epidemic in Berlin.

Malakin is the latest addition to the list of antiseptics, antipyretics, and antineuralgics. It is a derivative of salicylic acid and phenacetin.

The Digitalis Treatment of Pneumonia is unsafe and ineffective, according to Dr. Sieg. Reiner, of Vienna.

Tuberculin.—Dr. Thörner, of Berlin, has recently urged again the utility of tuberculin in tuberculosis.

Subgullate of Bismuth in ten-grain doses is said to be useful in chronic diarrhœa and fermentative dyspepsia.

Mika's Operation.—The *Lyon Médical* for September 24th contains an excerpt from *La Médecine Moderne* on a bizarre surgical operation that is practised by the aboriginal Australians. It consists in opening the inferior portion of the urethral canal near the scrotum. The wound is kept open until cicatrization produces a fistula. The operation is performed for the purpose of permitting of coitus and insuring relative sterility. In one Australian tribe M. Mikuho-Maclaya has counted three hundred men so operated on, while only three or four had the urethræ intact. These latter males were the most magnificent specimens of the race. M. Gazorowski recalls the fact that the aborigines of Santo Domingo practised a similar operation on horses in the eighteenth century, so as to preserve all their vigor without the power of procreation. Sterility so produced is evidently only relative, for sperm deposited at the entrance of the vagina sometimes suffices to fecundate.—*New York Medical Journal.*

Italian Surgeons seem able to acquire fortunes and at the same time philanthropy. The late Professor Pacchiotti recently bequeathed a large sum to the University of Turin; and the late Professor Olivieri, of Naples, has bequeathed $100,000 to two of the hospitals of that city.

Stanley's Tribute to Surgeon-Major Parke.—"Himself depleted in body from excessive perspiration after a march through hot, moist jungles, starving on one green banana a day, half-naked from loss of clothing and the constant wear and tear of bush life, half-fainting from the pernicious ague, which could only be suppressed by heroic doses of quinine, and yet presenting to each and all of us a face whereon one read naught but pleasantness and benevolence. Pursuing steadily, day by day, throughout a period which has no equal in my life for downright utter and extreme misery, an even temper so admirable and beautiful for its sweetness and devotion, that I can think no human being, male or female, could excel it. It is here, in the possession of these natural gifts, this charming benignity, that I think Parke is great. Oh! at such a time had the ordinary human creature stood up and freed the pent-up feelings with a shout of blasphemy and explosive fury, we could not have remembered it as a sin against poor, weak, over-pressed human nature; but never within my hearing or knowledge did I hear a murmur or a mean expression. That singular sweetness and tender anxiousness, having been noted by me so often when he sat in the midst of his patients unsuspecting, remain stamped on my mental image of Parke, and calling him now up to my mind I can see nothing else but that. The 'Doctori,' as the Zanzibaris called him, was to them a friend to whom they might expose their constant and ever-recurring ailments, for no one but one who was sincerely friendly could look as he did, or speak so soothingly and comfortingly."

Opening of the Johns Hopkins Medical School.—The regular courses leading to an M.D. degree at the Medical School of Johns Hopkins University opened on October 5th with a class of sixteen, of whom three are women. The high standard set by Johns Hopkins for admission to this school has, for the first time in the United States, secured a band of medical students each with a bachelor's degree from some reputable college. Of the thirteen men, Johns Hopkins supplies four; Yale, three; Harvard, two; and Amherst, Swarthmore, Virginia Agricultural College, and the University of Wisconsin, each one. The women are graduates respectively from Smith, Vassar, and Wellesley.

The Abuse of Medical Charities.—The British Medical Association has inaugurated a determined fight against the abuse of medical charities in Great Britain, and as a means to that end its committee recommends (1) that a wage-limit be established, above which income persons applying for treatment will be required to pay fees; and (2) that the hospitals and dispensaries hereafter have displayed in a conspicuous place within their precincts a placard bearing the following inscription: "This institution being established to relieve only those persons who are too poor to pay for suitable medical aid, notice is hereby given that on and after this date patients will be required to give information as to their means and circumstances, with a view to prevent the abuse of this charity by persons who are well able to pay." Cannot American hospital authorities be moved to "go and do likewise?"—*Medical News.*

The Census of the Medical Profession of Great Britain makes the total number of members of the medical profession 85,235. But of these, 30,843 are males, 54,392 females, the latter including midwives and nurses! The English census thus puts nurses in the medical profession; the London directories class physicians among the tradesmen!

Extreme Anti-adulteration.—There is an old story of some man who studied the subject of the adulteration of various popular articles of diet until he grew so impressed by the dangers attendant on food that he gradually gave up one thing after the other, eventually dying of want of nourishment. We may hope to avoid his fate, but still our indulgences are being daily restricted. We have to submit to boiled milk, which is no great hardship, and to boiled water, which is certainly nasty, and yet we know it to be wholesome, and so we dare not rebel. In their zeal against harmful things, some people would prohibit good as well as bad fruit, entirely forgetting that in food as well as drink temperance means moderation, not necessarily "total abstinence." But the latest dictum, that we must not clean our teeth with ordinary filtered water unless it is also boiled, is surely converting common-sense precautions into the similitude of absurdities.

Society Reports.

NEW YORK STATE MEDICAL ASSOCIATION.

Annual Meeting, Held in Mott Memorial Hall, New York City, October 9 to 12, 1893.

S. B. WYLIE MCLEOD, M.D., PRESIDENT, IN THE CHAIR.

FIRST DAY, MONDAY, OCTOBER 9TH—EVENING SESSION.

Address of Welcome.—DR. JOHN G. TRUAX, of New York, Chairman of the Committee of Arrangements, read a brief address of welcome, outlining the proposed work of the Association at this meeting, laying some stress upon the importance of the social features, and making touching allusion to one of the most devoted members, then on his death-bed, Dr. Alfred L. Carroll.

The President's Address.—DR. MCLEOD'S address consisted in an epitome of the addresses of the several presidents during the first decade of the Association's existence, and of the papers upon ophthalmology, materia medica, and insanity read during the same period. An analysis of papers upon surgery, obstetrics, etc., would be presented by other writers whose names appeared upon the programme.

The presidential addresses had been by Drs. Didama, Detmold, Moore, Taylor, Cronyn, Lusk, Orton, Stephen Smith, Andrews. They had been upon ethics, or the relations of members of the profession to one another, and those existing between the profession and the public; upon medical education, medical progress for the year, and upon special scientific subjects. The President thought this epitome showed that the Association had done much and superior work during its brief existence. The entire number of papers and dissertations had been 476, of which 181 had been on surgery; 151 on medicine; 72 on obstetrics and gynecology; 24 on pathology; 15 on materia medica; 10 on insanity; 8 on ophthalmology; 6 on state medicine; 4 on hygiene; 2 on physiology; 1 on toxicology.

The membership had increased to 800. The number of volumes in the library was 9,045.

"Now, fellows of the Association, let us close our books on the termination of the first decade, and open others for the commencement of the second. We have encouragement, we are prosperous; let us from this time on strive for greater and greater success."

Address on the Medical Work of the Association during its First Decade.—DR. JOHN SHRADY began with a reference to the rôle which a decade is supposed to maintain in the history of individuals, communities, and nations. He said that the Association was the ten-year-old boy, who earned the privilege of staying up late of nights, and of interjecting remarks at the family table; that, like the boy, the Association was too young to be very wicked, and not old enough to be querulous or dictatorial. Still he hoped that while the egotism of the Association was passing muster for enthusiasm, its spirit of decorum might in every sense be exemplary.

He then reviewed the work of the body, its contributions to the different departments of medicine, its recited cases and the set discussions on pneumonia, pulmonary tuberculosis, cancer, etc., which he said, although creditable enough, seemed to attract more attention abroad than at home. In common with other friends, he referred with pride to the Transactions, which had already appeared as a superb series carefully edited and well printed. The address was a long one, in consequence of its historical mode of treatment, but when published would furnish an excellent summary for future reading.

SECOND DAY, TUESDAY, OCTOBER 10TH—MORNING SESSION.

Annual Report of the Council.—This was read by the Secretary, DR. FERGUSON. It contained the reports of the librarian, treasurer, and other officers.

The receipts during the year had amounted to about $4,196. Deducting the expenses, the amount remaining in the general fund was $1,848. That in the library and building fund was $2,643.

Thanks to the Secretary-Treasurer.—On motion, a vote of thanks was tendered Dr. Ferguson for the able and faithful manner in which he had discharged the duties of his office the past ten years.

Amendment to the Constitution.—An amendment to the Constitution, article 2, section 6, offered at the last annual meeting, was read as follows, and adopted. In addition to the foregoing fellows of the Association, delegates not being fellows of the New York State Medical Association may be sent from medical organizations throughout the State in affiliation with this Association, in the proportion of one delegate for each ten members of said subordinate organization. Such delegates shall serve for the annual meeting next succeeding their appointment; they shall be entitled to vote on all questions not involving a change of constitution and by-laws, and shall not be chargeable with any fee or due, though they may secure a copy of the transactions of the meeting at which they served at the cost of extra copies to regular fellows. No medical organization can be entitled to send delegates unless its constitution and by-laws are in harmony with those of the State Association, the same having been approved by the council of this Association, nor shall it be subordinate to any other State medical organization.

Prevention of Disease.—DR. JAMES G. PORTEUS, of Dutchess County, read the paper. People showed greater interest in being cured of disease than in avoiding it. How many of us had ever succeeded in convincing a woman, or a man for that matter, that wearing narrow shoes had anything to do with producing their corns. They might admit the fact in their neighbor's case, but would deny it in their own. People inveighed against dirty water and filthy streets, but at their homes they drank water contaminated with their own excreta, and put up with surroundings which were far from cleanly. It was by persistent and intelligent application and spread of knowledge regarding the causes and the prevention of disease, that most good would be done by the medical profession. The discoveries of Pasteur, Koch, and others, had been of incalculable benefit in the prevention of disease, but the necessity for intelligent application of methods based upon their discoveries was shown by the fact that harm had sometimes resulted from their misapplication. The author impressed the necessity for carrying to a practical conclusion the principles enunciated from our laboratories, whereby we would be enabled, in great degree at least, to stamp out typhoid, diphtheria, cholera, and other infectious or contagious diseases. The question of preventing the spread of tuberculosis received more detailed mention. Dr. Porteus made it a custom to distribute among his clientèle a card with the following printed instructions:

"**To Prevent Consumption.**—Remember that it is an infectious disease communicated principally by the matter coughed up and spit out. The patient should spit in a cup or wide-mouthed bottle, containing a little carbolic acid and water, and frequently washed with hot water. Use carbolic acid and water in commode. Never spit on the street, or floor of house, or cars. Sleep alone, and if possible in an airy and sunny room. Have separate bed and table linen; these should be boiled before washing. Use individual table utensils, washed separately. Wash the mouth twice daily with soda and water. Do not kiss anyone.

"Those who are well should remember that it is an infectious disease, communicated principally by swallowing the germs, by inhaling them, or having them introduced through a wound. Therefore, do not buy or use food that has been handled by a consumptive. Do not share the food or drink of a consumptive. Do not sleep with a consumptive. Do not put coins or small articles in your mouth that may have been handled

by a consumptive. Do not use clothing until it is thoroughly disinfected, if it has been used by a consumptive. Do not kiss anyone on the lips if they have a cough. Do not take food without first washing your hands."

An Additional Note on Nephrotomy and Nephrectomy.—Dr. E. D. Ferguson read the paper, reporting three more cases treated since he had read his last paper. Altogether he had performed nephrotomy and nephrectomy nine times, and, contrary to what was supposed to be the rule, in no instance had he been able to recognize tuberculosis as the cause of the kidney trouble, although later in one case some signs of pulmonary tuberculosis developed. In only one was there a renal calculus. The pyonephrosis had usually had its origin in inflammatory disease below which had travelled upward. Moreover, the cause of the primary inflammation had not in his cases been venereal. In his former cases of nephrotomy he had put a rubber catheter into the wound, but he had come to the conclusion that it was better to insert gauze and keep the wound free, rather than hasten its reduction and have hard tissue form around the rubber tube. By the open method, too, the formation of pus pockets was rendered less liable. One case previously operated upon by nephrotomy required nephrectomy last June, which he thought might have been avoided had the wound been left open. The second of his three recent cases was a primipara at about the third month, in whom abortion was induced and nephrotomy performed for a cystic tumor of a movable kidney. The diagnosis had been confirmed by aspiration. The kidney was anchored during the operation. The patient was soon able to attend to her household duties, the kidney had diminished in size, the wound was still open. The third case was one of pyelitis starting from a vulvo-vaginal, urethral, cystic, and ureteral inflammation. Nephrectomy was preceded by vesico-vaginal fistula performed to relieve vesical tenesmus. The patient was doing well.

About the Condition of the other Kidney.—Dr. John Cronyn had seen a number of cases of nephrotomy and nephrectomy in their hospital at Buffalo, and he had come to the conclusion that the question most in need of solution at present was to determine the condition of the presumably healthy kidney. This fact had been impressed upon him some years ago by the case of a woman suffering, it was supposed, from calculus and pyonephrosis of one kidney alone, there being no tumor nor other evidence of disease in the other kidney. At autopsy the latter was half destroyed by a calculus, while the other kidney contained several calculi, being practically destroyed. He did not think cystoscopy and catheterization of the ureter had yet been very practical.

Dr. T. D. Strong related a recent case of nephrotomy in a young lady whom he had seen in consultation, and in this instance, as in those of the author's, there was no evidence of tubercular origin. The wound was still discharging some fluid.

Exploratory Incision Better than Cystoscopy and Catheterization.—Dr. Ferguson made some closing remarks. In diagnosis he thought it better to resort to an exploratory incision over the kidney than subject the patient to the dangers attending the use of the cystoscope and the catheter in the ureter. It should not be forgotten that the latter were surgical procedures, and the information which they gave us was uncertain.

Introduction of the catheter into the ureter was liable to be attended by carrying up of disease germs and spread of disease from below upward, if the ureter and kidney had previously been healthy, or engrafting upon them new disease, as tuberculosis. Dr. Ferguson preferred exploratory incision in the loin.

Dr. Strong suggested catheterization of the ureter through a supra-pubic exploratory incision into the bladder.

Dr. J. W. S. Gouley agreed with Dr. Ferguson, that an exploratory incision in the loin was preferable to catheterization of the ureter in diagnosis. One might go on to do nephrotomy if necessary, and some weeks later might do nephrectomy.

The Treatment of Epithelioma and Cancroid Ulcers by Topical Application.—Dr. Nelson J. North, of Brooklyn, read a paper in which he gave his experience with lactic acid applied to cancer of the cervix uteri, polypoid growths, epithelioma of the face, etc. Where cancer of the cervix uteri existed he had resorted to this agent only where hysterectomy was impractical or was positively refused. The first patient, with a lacerated and otherwise diseased cervix, had remained in health since the treatment, four years. In the second case there was uterine cancer, more inside than outside the cervix, the lactic-acid applications caused improvement a few weeks, when he heard of the patient's death and learned she had been operated upon by one who first loudly condemned the lactic-acid treatment. Another patient had cancer of the cervix and he recommended cysterectomy, which was performed successfully by Dr. Pilcher, but the disease recurred and soon terminated life. The next case was like the latter, but the patient positively refused to submit to an operation, and therefore the lactic-acid treatment was carried out. Within eight months the uterus had returned to perfect health. The next case was one of polypoid growth in the cervix which, as usual, refused to heal under various applications, but lactic acid had caused the spongy mass to shrink and dry up, only a very small mass remaining. The next case was one of cancer involving the uterus, bladder, etc. Lactic acid relieved most of the subjective symptoms. The next was one of tumor of the arm in a man; repeated applications of the lactic acid caused it to disappear. Another case in which this treatment had proven successful was one of degenerative change in a mole near the nose.

The author thought serious surgical procedures should be avoided whenever possible, especially such as were successful in the operating room only or chiefly. It should be remembered that lactic acid did not act as a caustic, and really was not a caustic. Unless on mucous membranes, its action was limited to the diseased tissue. It penetrated more deeply than a caustic, and seemed to seek out the diseased structure as neither knife nor cautery could do.

Afternoon Session.

Discussion on Lesions of the Pleura.—Dr. John Shrady opened the discussion upon pleural lesions, giving general views and classified opinions without committing himself to any particular recommendations as to treatment. Empyema, he said, had stimulated much controversy, and its treatment was determined in accordance with the usual varying conditions and the convictions of the attendant. The practical part of the subject he would leave for the discussion of the gentlemen to follow him, and who had an ample experience well fortified with statistics and numerous cases.

Question I. What are the Factors of Pleurisy? Its Forms and Contributive Conditions? What are the Pathological Changes in a Case of Progressive Pleurisy Ending in Recovery?—Dr. William McCollom, of Brooklyn, read a paper discussing the first question. Pleurisy, he said, is an exudative adhesive inflammation of the serous membrane lining the thoracic cavity. The contributing causes were several, and the specific cause in a given case was not easily determined, at least not always. The various combinations of symptoms in the several types of the disease, associated, as it frequently was, with other diseases, often allowed it to pass without being diagnosticated. He thought he did not exaggerate when he said that, in at least one-half the autopsies adhesions or exudates were found. Pleurisy was far-reaching in its baneful effects, and was now deservedly receiving increased attention. The author believed that if the diagnosis could be made early the evil after-results could be largely prevented.

Pleurisies were spoken of as dry pleurisy and pleurisy

with effusion. Dry pleurisy might pass to pleurisy with effusion. As to cause, Osler and others were of opinion that more cases were of tubercular origin than had been supposed; when the lung was crippled pulmonary tuberculosis often resulted. When the pyogenic membrane had formed the absorption of pus was not likely to take place, and it was best to leave in a drain. Pathogenic micro-organisms were a prolific cause of inflammatory disease of serous membranes, including the pleura. It should not be forgotten that cold and damp, and taking cold, were the most common predisposing causes of pleuro-pneumonia.

Question II. What are the Points of Differential Diagnosis in Pleurisy and other Affections of the Chest?—Dr. J. Blake White read the first paper on the second question. The diagnosis was rendered difficult by the presence of complicating conditions in the neighborhood of the pleura. When such complications were present it was his experience that little reliance could be placed upon the ordinary symptoms of pleurisy. Individual idiosyncrasy had much to do with the character and intensity of the symptoms. We should not forget that chill was equally indicative of other affections, and might be the primary cause of pleurisy. The liability of those with the gouty and rheumatic diatheses to pleuritic affections should be borne in mind; so also those living in a malarial district, the overworked mentally and physically, the anæmic, and others in reduced health.

Localized pain might be due to disease of neighboring organs. The pain of pleurisy was not infrequently manifested in distant parts. Dyspnœa was an ordinary symptom on which it was not safe to rely, although when associated with cough it was a valuable indication. The dyspnœa seemed of a double nature—inability to breathe from mechanical hindrance, and dread of pain. In diaphragmatic pleurisy there were symptoms referable to the digestive system, and hiccough. Constant desire to clear the throat when there was no throat lesion, was almost pathognomonic of dry pleurisy. A quick attempt to clear the throat pointed to adhesion higher, a prolonged attempt pointed to adhesion lower or at the base. At a later stage the diagnosis was usually easy by auscultation and percussion. A change of friction into creaking was more common in disease of the pericardium than of the pleura. One could auscultate to better advantage by having the patient expire quickly, as in blowing out a candle. In pleurodynia the pain was more of the nature of a catch in respiration than the darting pain of pleurisy, and a hypodermic of morphine and atropia would in the former give almost immediate relief. No investigation could conclusively prove that a micro-organism was the cause of a given pleurisy. The presence of micro-organisms did not show causative relation. It was just as easy to prove that they were the result of the pathogenic process as the cause. We could not trust to the discovery of bacteria in diagnosis.

Dr. John G. Truax, of New York, also read a paper upon the second question. He first went over the physical signs attending the different forms of pleurisy. There was a sound which, when it could be heard, was almost conclusive evidence of the presence of lymph—the friction sound or pleuritic rubbing. Some of its peculiarities were, that it could not usually be heard over a large part of the chest-wall at one time; it was seldom present at one spot for a long time; it changed as new pleura became involved; it could be felt as well as heard; sometimes it was brought out only on deep inspiration; effusion of liquid destroyed it; it was most apt to be heard first in the region of the axilla or below the nipple; it might be heard a few hours after the commencement of dry pleurisy and continue weeks; experience was required to recognize it or distinguish it from bronchial crepitation.

Pain was the first symptom of which the patient complained. Chest movements were much diminished, the respirations were short and jerking. In most cases liquid was effused in great quantity and rapidly. At first it was non-purulent, but later it became thicker, more opaque with leucocytes, when it constituted empyema. When there was a large quantity of liquid, percussion and auscultation showed complete absence of resonance and respiratory murmur. If the lung had been bound down by free pleuritic adhesions, bronchial breathing might be heard even though there was a large quantity of fluid. Change of position of the patient would aid in the diagnosis. Old pleuritic adhesions might prevent liquid from gravitating to the most dependent part of the chest-cavity, but the fluid would always gravitate to the lowest part of the cavity in which it was confined. Pressure of the liquid upon the heart and blood-vessels might give rise to signs which would lead one to suspect complications which did not exist. The author referred briefly to other symptoms—change or loss of voice sounds, bronchophony, egophony, dyspnœa, cough seldom absent, pyrexia generally moderate. The author left unread that portion of his paper naming the conditions with which pleurisy might be confounded, as the ground had been covered by Dr. White.

The Surgical Treatment of Pulmonary Cavities.—Dr. N. P. Dandridge, of Cincinnati, read the paper. There was a disposition on the part of some to push surgical treatment of pulmonary cavities beyond reason; others showed too much conservatism. Experiments upon animals showed that a considerable portion of the lungs could be removed without danger to life or health; while such experiments had undoubtedly been of great service to man, they had at times led to operative interference beyond the bounds of reason and safety. The fact that the patient survived the operation did not prove that he could not have done without it, or that it had been beneficial. The complete removal of a limited lesion, when possible, relieved the patient of his trouble and restored him more or less nearly to health; on the other hand, removal of a local lesion in a generalized or diffused disease must be an incomplete procedure, yet it might prove of limited benefit. For instance, it was often of value to drain a cavity of decomposing matter, as the surgeon would do in any other portion of the body when it was impossible to remove the diseased tissue. Among the conditions mentioned, in which it was possible for drainage to prove of value, were pulmonary gangrene, hydatid cysts, tubercular cavities, bronchiectatic cavities, and pyo-pneumothorax. Exaggerated claims for operative interference were strongly deprecated. After reviewing some of the experiences of others, the author related a few cases in which he had himself drained pulmonary cavities with benefit. The first one was that of a man suffering from pulmonary tuberculosis, and who gave a strong family history of that disease. Physicians who had seen him introduced an aspirating needle over supposed empyemic fluid, but obtained only blood. Dr. Dandridge resected the eighth and ninth ribs and let out blood-stained purulent fluid, from what he believed was a phthisical cavity, inserted a drain, and when the patient left, at the end of two months, there was very marked improvement, although the physical signs at the apex had not changed. It was one of the best cases for drainage—a superficial tubercular cavity. Such a condition was likely to be mistaken for a localized empyema. Another case was one of pleurisy with a fistulous connection between the cavity and a bronchial tube. Purulent matter had been expectorated for some time. He decided to freely open the pleural cavity, after which he traced the fistulous tract upward, introduced a large drainage-tube, irrigated. The man's condition improved and he passed from under observation, but he had heard there was now amyloid degeneration of other organs. The operative treatment of hydatid lungs resulted in a large proportion of recoveries.

The following were the conclusions arrived at: A certain number of cavities of the lungs can be successfully dealt with by incision and drainage, and if a complete cure does not result, at least sufficient benefit is likely to follow the diminution of the amount of purulent expec-

toration and septic absorption to justify the attempt. Superficial phthisical cavities at the base should be opened if the general condition of the patient allowed. Cavities at the apex should only be opened when free and persistent fetid expectoration is present, resisting treatment, and the rest of the lung is not involved. Abscesses, gangrene, and hydatid cysts should be opened and drained whenever they can be located. Cavities that have been opened are generally best treated by packing with gauze, preferably with iodoform. A further trial of such agents as iodoform, chlorine gas, and chloride of zinc is desirable to determine whether they may not modify tubercular infiltration in the walls of cavities. It is very desirable, for the further extension of surgical interference in pulmonary cavities, that the means of exactly locating these cavities and defining their size, and character of the tissue which overlies them, should be further studied. For the accomplishment of this purpose the surgeon must look to the physician.

Question III. What is the Treatment of Empyema, with Relative Value of Aspiration, Rib Resection, and Free Opening with Drainage?—Dr. Charles A. Leale, of New York, continued the discussion on pleurisy with a paper. The great variety of the lesions found post mortem in pleurisy showed the difficulty or impossibility of making fixed surgical rules in treatment. He had made many observations which proved that the entire lung might be destroyed or rendered useless, and that fully one-half of the remaining lung might be diseased, and the patient live in comfort by observing moderate rest. A striking instance was that of a man who lost some members of his family by pulmonary phthisis, and at the urgent advice of his physician, who recognized cavities in his lungs, gave up business and made a change of climate, going to Egypt. There he lived in comfort for years, and came to give his advisers no credit, but said they were mistaken in their diagnosis. Once he ate too freely, the distended stomach pressed upon the diaphragm, through the influence of the adhesions excessive coughing started, an atheromatous artery of the brain burst, and death ensued. At autopsy the pulmonary lesions were found walled in, as had been predicted.

His personal experience was that, where the pus in empyema was laudable one removal sufficed for a cure, but where the pus was putrid free drainage was called for.

The discussion upon the papers relating to pleurisy was participated in by Drs. Manley, Cronyn, Ferguson, Donald McLean, Dandridge, and Leale.

Dr. Manley opposed aspiration. He had employed it up to the time of the discussion in Paris when Verneuil took strong ground against it as being injurious. Dr. Manley then found, on looking up the histories of his cases in which he had aspirated, that none had lived longer than three years. He believed opening the pleural cavity was always a serious operation. Nature's method of draining an empyemic cavity was best, but when she failed it was necessary to introduce artificial drainage.

Dr. John Cronyn thought the pleural cavity with serous effusion could be aspirated safely by a clean instrument, avoiding the introduction of air. Pus must become poisonous or suppurative before it could become dangerous. The old valvular method of drainage should be applied. In treatment of pleurisy he employed dry or wet cups, topical applications (poultices), pure opium to relieve pain, not the alkaloids. Referring to the prevention of tuberculosis, he said the common habit of recommending slight girls to marry strong men was dangerous to the men, and he cited instances where the husband, contracting tuberculosis from the wife, died.

Dr. E. D. Ferguson spoke of the value of drainage in pyo-pneumothorax. Often the removal of but very little of the pus by aspiration would effect a cure. There was only a small proportion of cases in which rib resection was called for. When indicated, the outlook for the patient was not hopeful.

Dr. Donald McLean, of Detroit, said the aspirating needle might be useful in diagnosis, yet it was like a broken reed. In getting rid of fluid he would resort to some more radical measure, say excision of rib, to secure free drainage. He had not met with any disaster following it.

Dr. Dandridge favored resection of rib where drainage was indicated. There was some advantage in early aspiration by its influence on the expansion of the lung, for air not entering where the fluid had existed, the lung expanded to fill the space.

Dr. Leale related a case of metastatic tuberculosis to the brain in a strong man, who acquired the disease from a wife whose family was tubercular.

An Ancient Catheter.—Dr. J. W. S. Gouley presented a catheter from the remains of Pompeii. It was of copper, covered by verdigris, of sigmoid form, had the vesical opening near the extremity. Similar catheters were described by Celsius, and the rules which he gave for their introduction were useful to-day.

Dr. Gouley also showed some domestic catheters, and said there were two firms in this country who made as good instruments as were imported from abroad. Indeed one firm made better gum and rubber catheters by machinery than the English catheters which were made by hand. They had a very high polish.

Evening Session.

Remarks on Fermentative Dyspepsia.—Dr. Austin Flint read a paper upon Fermentative Dyspepsia, including only functional cases, or those without organic lesion. All such cases of dyspepsia were accompanied by a certain amount of mental or moral disturbance, and although the person might be well nourished, it was desirable and important to relieve him of his symptoms. He believed that all forms of flatulence were due to a micro-organism, although its exact action upon the food within the alimentary tract might not be easy to explain. He regarded the process of digestion as too complicated for man to introduce a substitute into the stomach which should relieve the digestive fluids of their work. Pepsin, pancreatin, etc., were regarded by him as worthless when introduced into the digestive tract. His condemnation of them did not exclude peptonized or partially digested foods before these were eaten. Having come to regard fermentation in the alimentary tract as due to microbes, he had made this his basis in the search for a remedy against flatulent dyspepsia. Salicin, which had been recommended highly by his father, had proven useful in his hands, but he had found another agent more uniformly successful, namely, bismuth subgallic. Of this he gave five grains before or after meals, according to the case, preferably in tablets, or in capsules. It had been almost uniformly successful.

Dr. John Cronyn thought the chief question was not the remedy, but what was the nature of the disease. He related his own experience during an attack of dyspepsia, for which the doctors prescribed several remedies without success, and then finding evidence that the juices of his stomach were not sufficiently acid, he took hydrochloric acid and was relieved.

Dr. Henry F. W. Risch, of Brooklyn, had observed that flatulence was of two forms, namely, that due to decomposition of nitrogenous foods, and that due to fermentation of carbo-hydrates. The former was distinguished from the latter by the foul-smelling breath. In the former he stopped putrefaction by prohibiting meat and nitrogenous elements, and limiting the patient to carbo-hydrates; in the other form the opposite rule was followed. Further measures were, an emetic of ipecac and warm water stomach washings if the doctor had time, acids, pepsin, etc.

Dr. C. A. Leale, of New York, referred to experience with the Floating Hospital for Children, and said he had been struck by the important rôle played by micro-organisms in the production of diarrhœa and indigestion, so that it had come to be the rule to wash out

the colon and give only sterilized or boiled milk. The improvement was rapid and remarkable. He had learned of the value of salicin from the elder Flint. Bismuth was useful in children.

Bloodless Amputation at the Hip-joint; A Record of Cases Operated upon by the Author's Method.—Dr. John A. Wyeth, of New York, read this paper. The first part was devoted to a brief historical review of attempts to render amputation at the hip joint a bloodless operation. It had been only about four years since the author had first operated in the manner about to be described, and since that time he had collected thirty-nine cases. Under strict antisepsis the operative technique was as follows:

1. With the patient in the usual position for hip joint amputation, the limb should be emptied of blood either by elevation of the foot and lowering the trunk, or by the Esmarch bandage applied from the toes to the trunk. Under certain conditions the bandage can be only partially applied, or may not be applied at all. When a tumor exists, or when septic infiltration is present, pressure should not be exercised quite to the diseased portion for fear of driving septic matter into the vessels. In injuries with great destruction, crushing, or pulpification, of course the Esmarch bandage is not applicable, and one must trust to elevation to save as much blood as possible.

2. While the member is elevated, or before the Esmarch bandage is removed, the rubber-tube constrictor is applied. The object of this constriction, and it is the chief point in the method, is to have absolute occlusion of every vessel at the level of the hip-joint above the field of operation. To prevent any possibility of the tourniquet slipping, I employ two large mattress-needles, or skewers, about three-sixteenths of an inch below the anterior superior spine of the ilium, and slightly to the inner side of this prominence, and it is made to traverse superficially the muscles and fascia on the outer side of the hip, coming out on a level with and about three inches from the point of entrance. The point of the second, smaller needle, is entered one inch below the level of the crotch, internal to the saphenous opening, and, passing squarely through the adductors, comes out an inch below the tuber ischii. The points are shielded at once by bits of cork to prevent injury to the hands of the operator. No vessels are injured by these skewers. A piece of strong white-rubber tube, one half inch in diameter, and long enough when tightened to go five or six times around the thigh, is now wound very tightly around and above the fixation needles and tied. If the Esmarch bandage has been used it is now removed.

3. In the formation of flaps the surgeon must be guided by the condition of the parts in the field of operation. When permissible the following method seems advisable: About six inches below the tourniquet a circular incision is made, and this is joined by the longitudinal incision commencing at the tourniquet and passing over the trochanter major. A cuff, containing the subcutaneous tissue down to the fascia, is dissected off to near the level of the trochanter minor. At about the level of the trochanter minor the remaining soft parts, together with the remaining blood-vessels, are divided down to the bone by a circular cut, and in order to facilitate the search for the vessels the soft parts are rapidly removed from the femur for several inches below the line of the divided muscles. At this stage of the operation the larger vessels, veins as well as arteries, can be tied with good sized catgut. As suggested by Professor Murdoch, of Pittsburg, he now left the entire extremity intact, and used the full length of the limb as a lever in dislodging the head of the bone When the larger and easily recognized vessels have been secured, the muscular attachments of the upper extremity of the bone are removed with the scissors or knife, keeping along very close to the bone.

Holding the soft parts away with retractors, the capsular ligament is exposed and divided in its circumference.

Forcible elevation, abduction, and adduction of the thigh permits the entrance of air into the socket, and at the same time ruptures the ligamentum teres, and the dislocation is then easily and rapidly effected. Properly conducted up to this point, not a drop of blood has escaped except that which was in the limb below where the constriction was applied. If now the tourniquet be carefully and gradually loosened, each bleeding point may be easily determined and the forceps applied as required, until the tube is entirely removed.

4. The closure of the wound with the usual precaution of drainage remains. Dr. Wyeth preferred silk-worm-gut; one good-sized rubber drain from the acetabulum passed out at the most dependent part of the wound. When by reason of proximity of epithelioma or destruction of parts, use a modified method.

The author had been able to secure statistics of thirty nine amputations by the foregoing method. There had been a death-rate of 23.7 per cent. (five were reamputations); sarcoma, 16 cases, 2 deaths, 12.5 per cent.; inflammatory bone diseases, 18 cases, 3 deaths, 16.6 per cent.; violence, 4 cases, 4 deaths, 100 per cent., all very severe and extensive injuries; nerve injury, one, no death. Thus it would be seen that there had been thirty-five amputations for disease with five deaths, 14.2 per cent.; four amputations for injuries and four deaths. This was in marked contrast with Ashurst's list of 633 cases with a mortality of sixty-four per cent. It was not claimed, however, that the reduced mortality-rate was due entirely to avoidance of hemorrhage which this method implied. Antiseptics, etc., had something to do with it. By this method bleeding could be as successfully controlled as in amputation of the thigh at any point below.

Dr. Joseph D. Bryant said the results of this method spoke for themselves. Dr. Wyeth was to be congratulated for devising the means by which hemorrhage in amputation in the hip-joint could be so successfully controlled.

Dr. Donald McLean, of Detroit, said he appreciated Dr. Wyeth's method of controlling hemorrhage, but he must express the conviction, with due modesty, that there was even a better method, which was to make pressure upon the abdominal aorta by means of a tourniquet. He had operated, controlling hemorrhage in this manner, a number of times with entire satisfaction. Scarcely a drop of blood need be lost.

Dr. Reginald H. Sayre, of New York, feared the skewer would, in some cases at least, be too near the line of incision.

Dr. Wyeth said the technique of the procedure which he had described was applicable in all cases. He had operated in nine minutes.

The Treatment of Angular Deformities of the Hip-joint.—Dr. Reginald H. Sayre, of New York, prefaced his remarks on this subject by the statement that the best thing was to prevent angular deformity by proper treatment at the outset. In any case of hip joint disease there should be recovery, if the recovery took place at all, with the legs parallel. The treatment varied with the nature of the disease and the condition of the joint when seen. The history of a few illustrative cases was given. Bony anchylosis sometimes existed when it was supposed to be fibrous, and *vice versa*. When bony union existed, attempts at motion would not produce pain. The contrary was likely to occur when there was fibrous union, although the motion was very slight. In many cases the use of some force would break up the attachments, and by degrees we would succeed in securing a fair amount of motion. In other instances we had to resort to osteotomy.

Third Day, Wednesday, October 11th — Morning Session.

Opposed to a Change in the Code.—The Secretary offered the following resolution: In reply to the notice of the American Medical Association requesting that the

State medical organizations in affiliation with that body express their wish in reference to any changes in the Code of Ethics, the New York Medical Association has to say that it has made that Code one of its foundation-stones, and it is entirely opposed to any alteration therein. This is the result of a full reconsideration of the subject, and after an experience of ten years of organization under that Code. The resolution was adopted without a dissenting voice.

Treatment Indicated after Trachelorrhaphy.—Dr. William H. Robb said that in the majority of cases trachelorrhaphy restored the parts to their normal condition and the patient to health. In a few instances, however, this result did not follow, and in order to trace the reason therefor, Dr. Robb described briefly the anatomy of the pelvic organs, especially of the uterus, the changes which take place during pregnancy and subsequent involution. Laceration of the cervix, when of sufficient severity, left the womb in a state of subinvolution, and was followed by various pathological changes in the cervix and neighboring parts. Treatment after trachelorrhaphy was general and local. Of many drugs, he wished to mention two from which he had obtained particularly good results when administered internally—they were mercury and iodide of potassium. The local treatment required the patient to be put to bed, position, hot douches, glyceride tampon, tincture of iodine, abstraction of blood from the cervix, etc.

Three months of this treatment often started an improvement which terminated in recovery. The condition most frequently found in his practice had been endometritis, often complicated with fungous degeneration. Scraping of the entire endometrium and draining with gauze were indicated. In case of inflammatory pelvic deposit galvanism had spared the necessity for abdominal section. If there were imperfect union of the cervix a second operation would be called for. When all treat ment failed, the woman could be promised removal of the appendages after the menopause.

Dr. A. Palmer Dudley, of New York, thought that if the after treatment described by Dr. Robb were carried out before trachelorrhaphy, there would be no failures from the operation itself. Then, in repairing the cervix, he divided the uterine artery on both sides and ligated it with the sutures, so that the blood-supply to the hyperplastic organ was cut off during about forty days. By that time great reduction in size had ensued. In the preliminary treatment of the diseased and enlarged uterus he touched the parts with pure carbolic acid. Free drainage was essential. He advised that the cervix be repaired immediately after labor where possible. He had done this in a few cases, employing reflected light.

Dr. Robb said slight lacerations of the cervix healed without any operation, and Dr. Ferguson doubted whether immediate repair would be an easy procedure in primipara.

Voluntary Commitment of the Insane to Asylums.—Dr. W. D. Granger sent the paper, which was read by the Secretary. Up to recent times asylums for the insane had been merely places of incarceration—prisons, the superintendent being looked upon as the jailer. Happily, a change was rapidly taking place, and such institutions were very properly coming to be looked upon as hospitals. Many patients realized their condition and wished, as did their friends, that they might enter the hospital for treatment if the odium of incarceration could be removed.

In some State institutions (Connecticut and Massachusetts) voluntary commitment was provided for under certain restrictions. In New York there was a similar provision in regard to homes for the insane, but in State institutions a legal commitment was called for, and the patient could not leave the hospital at will. The superiority of voluntary commitment in certain cases was striking, and it made provision for a class of patients who, under the technicalities of the law, were not admitted to the State asylums at all. It was in cases on the border line of insanity that voluntary commitment was most needed and proved most useful.

The paper was discussed by Drs. Lester, Colvin, Ferguson, McLeod, and Strong. Dr. Lester gave an instance of injustice in the working of the new law, but others explained that this was due to the rules established by the Commissioners in Lunacy or obstinacy of the asylum superintendent, and not to any fault in the legislative enactment.

The Treatment of Enteric Fever.—Dr. Gustavus Eliot, of New Haven, Conn., in presenting this paper, said he had nothing new to offer, but wished to impress the superiority of certain recognized methods over others. The patient should be put to bed and not be allowed to get up until all doubt was ended as to the nature of his disease, or until recovery, if it were really typhoid. Fresh cow's milk was the best food. Give at least two quarts a day. There were some therapeutic annihilists; to them he did not address his further remarks. He advised three to five doses of ten grains of calomel at the outset, with forty-eight hours' interval. Quinine might be given if one suspected malaria, but probably nine cases out of ten would be as well off without it as with it. Salol had been proven to be without value. Turpentine was useful in tympanites, and it strengthened the nervous system. He used iodine and carbolic acid. They should be administered early, and might be continued until convalescence. As to the Brandt or tub-bath method, he ventured to say it would never be carried out in country districts. Those who applied it must turn a deaf ear to the piteous appeals of the sick to be spared the discomfort. Antipyrin and other similar antipyretics had undoubtedly been the means of saving many lives in enteric fever. Stimulants were seldom indicated at the beginning, and should not be given by routine.

Dr. Douglas deprecated the too free use of stimulants in typhoid. Among agents used by him were creosote and calcined magnesia; ten grains of calomel repeated not oftener than three times; salicin; no quinine unless there were malaria; subnitrate of bismuth often took the place of opium.

Dr. William Finder took the fat from milk when the pure article could not be digested. Resorcin was valuable.

Dr. Lester said malaria prevailed where he lived, and it was at times difficult to decide whether the patient was suffering from this affection or typhoid. Quinine was apt to be useful, and doctors from a distance, when called in consultation, were apt to err in prohibiting its use.

Dr. E. R. Squibb, of Brooklyn, said he never lost opportunity to repeat the fact that calomel was converted into an albuminate in the stomach, but a small amount became bichloride and was perhaps antiseptic in the intestine. If there were much fluid in the stomach it was apt to be carried along too fast. Take the dry powder on the tongue.

Dr. Martin gave no quinine, as there was no malaria where he lived. Feed the patient.

Rare Forms of Gout and Rheumatism.—Sir James A. Grant, of Ottawa, stated by way of preface to his paper, that in Canada they watched with the greatest interest the work of the medical profession in the States. It was gratifying in the highest degree to con over such names as Rush, McDowell, Gross, and a host of others. He then gave the histories of some cases of rare forms of gout and rheumatism, one being a case of pneumonic gout, one of gouty perityphlitis, another of rheumatic typhlitis or perityphlitis, in each instance the pneumonic or typhlitic symptoms disappearing with metastasis of the diathetic disease to the joints. Let the people be educated to simplicity of living, so that the functions of the body might be carried on in a normal and healthful manner.

Surgical and Pathological Memoranda.—Dr. Donald McLean, of Detroit, related some interesting cases from a surgical and pathological stand-point. Some were cases of ununited fractures of long bones. It seemed the chief

cause of non-union in such cases had commonly been overlooked, *i.e.*, that the blow producing the fracture had been direct and severe. In all old cases his treatment had come to be limited to two procedures: If possible, application of a splint or support; or amputation and an artificial limb. In amputation at the hip-joint he rendered the parts bloodless by a tourniquet compressing the abdominal aorta beneath the umbilicus. One case of hip-joint amputation following a severe injury was related, the patient recovering. He also related two or more cases of amputation of the whole shoulder after ligating the main vessels. Two well-marked cases of spina bifida had come under his care in which treatment by iodine injections followed by excision of an elliptical flap effected a cure. Two cases of tumor of the median nerve of the arm were cited in which he performed excision successfully, in one the tumor proving to be a cyst as large as an orange. In both of these cases the patients were chloroformed and went into collapse from which it was difficult to arouse them, causing him greater anxiety than he had ever before experienced during thirty years' use of this anæsthetic. Eleven years ago he amputated the breast of a patient for scirrhous cancer, the diagnosis being confirmed clinically and microscopically. There had not been any return. Five years ago he amputated her son's tongue for carcinoma and there had been no return. The reader showed a large and very irregular gold plate which a man had swallowed while asleep, and which by good luck he caught with the forceps introduced some five inches down the œsophagus and extracted it. One could not conceive of a form in which the foreign body would have been more difficult to remove, yet, as it happened, little trouble was experienced.

Discussion on the Treatment of Appendicitis.—Dr. Frederic S. Dennis, of New York, read a paper, opening the discussion, in which he propounded the following questions: 1. What proportion of cases of appendicitis end in resolution? 2. What class of cases require immediate operation? 3. What class of cases do not require immediate operation?

To formulate precise and satisfactory answers to these questions was not an easy task. There was no unanimity of opinion as to the exact time when an operation should be performed. During the last two years the pendulum had swung so far in one direction that it had begun to swing in the opposite direction. There was an honest diversity of opinion, it tending on one side toward extreme radicalism, on the other toward extreme conservatism. About one-half to two thirds of cases of inflammation in the right iliac fossa underwent resolution. An immediate operation was called for if the symptoms went on after the third day; an immediate operation was not called for if, after the second or third day there was general subsidence of all the symptoms. There were, of course, exceptions to all general rules in surgery, and he could conceive of cases where an operation was called for within twenty-four hours.

It should be remembered that there were several varieties of inflammation in the right iliac fossa independent of appendicitis. Then it had been argued in favor of interference that removal of the appendix removed the possibility of subsequent appendicitis. As a matter of fact, however, there had been cases in which the attacks continued after removal of the appendix. It should be remembered, too, that there were many other conditions which had been mistaken for appendicitis, and in which abdominal section would have done harm. Then there was great liability of hernia following the operation. A prominent instrument-maker said he had sold six dozen trusses during the last year for hernia following operations upon appendicitis. McBurney's point was a valuable sign, yet it was sometimes present where appendicitis did not exist.

Dr. J. W. S. Gouley had seen in all about two dozen cases of appendicitis which ended in resolution, and only two or three which had come to operation, and then successfully. They were perityphlitic or typhlitic.

Dr. Donald McLean, of Detroit, related some interesting cases in his city, which showed that the questions were of the most serious which we were called upon to answer. In some, an operation had been recommended, was rejected, and the patients got well; in others, an operation had been done and death ensued: in still others it had been followed by recovery. The eyes of a critical public were upon the profession in this matter. In one instance he opened the abdomen at the request of a girl who had long suffered from a "pain in the side," and was about to give up his search for the cause when he happened to feel a band, and tracing it up it was found to be an elongated appendix vermiformis which had become adherent to the inflamed ovary.

Dr. Joseph D. Bryant said there was a difference between the questions, what proportion of cases of appendicitis ended in resolution? and what proportion of cases of pelvic inflammation ended in resolution? The answer to the former question, however, could only be estimated from that of the latter. According to Fitch about fifty per cent. of cases of inflammation about the caput coli ended in resolution. But could a case recover by resolution if there were gangrene of the appendix? or perforation? or abscess? He thought not in the sense of complete recovery. Then in what percentage of cases of inflammation in the right iliac region did abscess, gangrene, and perforation take place? He was asking questions which he was himself unable to answer. Again, could we diagnosticate gangrene, abscess, and perforation in time to do an operation? Assuming from the history of a case that one of these conditions was present, he would operate at once, whether the case were one day or several days old.

Temperature was an unreliable guide, continuous local pain and tenderness, muscular rigidity, and tympanites were important signs of perforation. Regarding the McBurney point, it was valuable when present, but to expect pain in this particular place was unreasonable, as autopsies had shown that the caput coli varied greatly in locality.

Dr. John A. Wyeth thought that where one was in doubt it was safer for the patient to operate. Nor did he think that he was biased in favor of interference. True, many cases got well by resolution, but suppose there were one hundred persons with appendicitis on the right hand and one hundred on the left; that all the former were operated upon by an able surgeon, while the latter were not: which list would show the largest proportion of recoveries? As to hernia, it was due to late operations, the presence of suppuration, and inability to close the wound. With a timely early operation the wound could be closed and hernia avoided.

Dr. E. D. Ferguson's experience had been that inflammation in the neighborhood of the caput coli usually ended in resolution, but sometimes operative interference had been necessary. His only two cases of death had been where the patients refused an operation. Do not spend much time searching for the appendix. An immediate operation was called for where there was diffuse peritonitis or perforation of the unprotected appendix.

Dr. W. T. Lusk said a word from the medical side. He thought we had about reached a stage in the history of appendicitis that we had reached not long ago in the history of salpingitis. It was once said that no pus-tube could recover; all cases should be operated upon. Lately numerous examples were being put on record of recovery without operation. People were often unnecessarily frightened on having even a simple colic, being told, perhaps, by some radical surgeon, like in an instance which he related, that if it were their own case they would submit to an operation at once.

Dr. John Cronyn made some remarks upon Sir James A. Grant's paper, after which a communication was read from a French physician, visiting this country, on granular conditions of the eyes in tropical climates. He having found a strong solution of sulphate of copper about the only efficient means of healing them.

FOURTH DAY, THURSDAY, OCTOBER 12TH.

President-elect.—The Nominating Committee made its report. Dr. Thomas D. Strong, of Chautauqua County, being named for President. The gentlemen named were elected.

The Male Catheter, with Some Observations Upon the Proper Mode of Introduction into the Bladder.—DR. DOUGLAS AYRES read the paper referring to ancient use of the catheter, its forms, the anatomy of the urethra, steps in introduction of the catheter, difficulties encountered, and relating cases of failure in his neighborhood.

Researches on the Efficacy of Vaccina after Typhoid Fever.—DR. WILLIAM FINDER, JR., of Troy, had observed, during an epidemic of small pox at Troy, about twelve years ago, that patients who had had typhoid fever were easily vaccinated by the same matter which failed in other cases of revaccination. It seemed that typhoid destroyed the efficacy of vaccina, and he had since made it a rule to revaccinate in all cases of typhoid.

DR. ROBE remarked upon the necessity for using fresh vaccine, and related an experience in his neighborhood.

Reflections on the Need of Close Observation of Disease and upon the Value of Hygienic Therapeutics.—DR. H. ERNST SCHMID, of Westchester County, read a paper with this title. A few ancient and modern stories were cited as forcible illustrations. In most of them the information seemed to have been derived through marked power to draw inferences more than through observation. Some ridiculous mistakes were also mentioned, one or two in the experience of Wünderlich. Allusion was made to the injustice of the criticisms of the laity. If it were fair to sue a doctor for failure in a given case, where he had treated the patient to the best of his ability, why should not the lawyer be liable when he lost his client's case through a legal technicality? Medicine had for a long time been mere empiricism; a groping in the dark. Let there be more general recognition of the health-preserving and healing influences of fresh air, proper nourishment, out-of door exercise, cleanliness, hygiene. Success in medicine called for knowledge, thoroughness, experience, and boldness, which was based upon profound judgment and conscientiousness.

State Asylums for the Inebriate.—DR. SCHMID, as a member of a committee appointed last year, said they had gone before the Legislature and asked for the establishment of hospitals for the inebriate, similar to those for the insane, and a bill had been passed by both the Assembly and Senate, but had been vetoed by the Governor. It was hoped to have the bill passed again and signed. The committee was continued.

Puerperal Blindness.—DR. DARWIN COLVIN read the history of a case of puerperal blindness which, he thought, could have been warded off if the attending physician had followed his advice strictly and abstracted blood earlier. He believed the cause of the blindness and eclampsia was the same. The woman recovered from her labor and slowly regained sight.

DR. MCGILLICUDDY had four cases of puerperal blindness in hospital practice, the eclampsia being controlled by chloroform and other anæsthetics, milk diet, large quantities of water, etc. The treatment directed against the condition of the kidneys had in a few days relieved both blindness and eclampsia. In addition, delivery was effected at once.

A Plea for the Non-operative Method of Treating Dysmenorrhœa, Pelvic Inflammation, and Pelvic Abscess.—DR. T. J. MCGILLICUDDY, of New York, read an earnest plea for the treatment of dysmenorrhœa, pelvic inflammation, and pelvic abscess, by measures directed to the alimentary tract from above and below, and by non-operative intra-vaginal methods. Many had declaimed against too much pelvic surgery, but had stopped there instead of going on to offer an efficient substitute. The measures, described at some detail in the paper, related to depletion of the pelvic vessels, large quantities of hot water taken into the stomach, use of nitrogenous food, refraining from hydrocarbons; iron, quinine, arsenic, dilute muriatic acid, intestinal antiseptics, bitter tonics, douching the colon twice daily, vaginal douches and tampons, rest, hygienic surroundings. Many were the cases of pelvic inflammation, dysmenorrhœa, and even abscesses, which had been cured by such means. Surgical interference with the interior of the uterus had done much harm. If a patient died from an operation where medical treatment would have cured, the white sheet covered a scientific murder.

A Discourse on Temperature.—DR. H. F. W. RISCH, of Brooklyn, gave an abstract of a paper on this subject. The uniformity of the temperature of the human body at all latitudes was a most remarkable phenomenon, and its disturbance pointed to some form of irritation, mechanical or chemical. The irritation was of the nervous system. We should try to reduce the temperature to normal, not by applications to the outside of the body if the rise was on the interior, but by colon flushings and by removing the cause, for instance microbes or their products.

Wednesday evening a banquet was held at the Hotel Brunswick. Thursday afternoon a visit was made to the Island hospitals.

Pan-American Medical Congress.

First Meeting, Held at Washington, D. C., September 5, 6, 7, and 8, 1893.

(Special Report to the MEDICAL RECORD.)

(Continued from p. 502.)

SECTION ON HYGIENE, CLIMATOLOGY, AND DEMOGRAPHY.

ALBERT L. GIHON, M.D., MEDICAL DIRECTOR, U. S. N., WASHINGTON, PRESIDENT, IN THE CHAIR; ENGLISH SECRETARY, PETER H. BRYCE, M.D., TORONTO, CANADA; SPANISH SECRETARY, PEDRO JOSÉ SALICRUP, M.D., NEW YORK CITY.

FOURTH DAY, FRIDAY, SEPTEMBER 8TH—MORNING SESSION.

Pestilential Conditions.—The combined sections were called to order at 10 o'clock, when DR. BELL opened the proceedings of the day by reading his paper entitled "Pestilential Conditions."

Modern sanitation, he said, as undertaken in England, fifty-five years ago, was based upon the recognition of local conditions to the death-rate of the people; and the coincidence of its practice and the progressive reduction of the death-rate ever since, is the unanswerable argument for the establishment of sanitary methods everywhere.

Dr. Bell passed in review on London in the sixteenth century, and Cairo two centuries later, discussing their pestilential conditions and the fearful results.

Cholera in India received able and timely attention. He quoted from the valuable work of Dr. M. C. Furnell, late Surgeon-General and Sanitary Commissioner, Madras, as follows:

"In all India there died during 1879, 5,000,000 of people, of whom fever killed 3,500,000; cholera killed off 265,000. In some years it is much worse than this. A good deal of this mortality is preventable, and the use of impure water is, I feel persuaded, answerable for much of it."

Following a lengthy description of the Indian conditions that foster the disease, he further quoted from the same practical authority as follows:

". . . I do not by any means maintain water is the only means by which the cholera is spread. . . . I believe the air, clothes, food, drink of all sorts besides water, may and do spread it; but I also believe that water is the chief means by which it is spread, especially in India, and that on account of the peculiar treatment

water obtains in this country, that India, the only country in the world, is subject to such frequently recurring and such terrible epidemics of this dread scourge."

Germs and germ disease received due attention. Dr. Bell said: "But the spores of bacteria—the seeds—are, of all things viable, the most persistent. . . . The spores of bacteria are practically immortal."

Next in order was No. 702 on the official catalogue, or, "Epidemic and Exotic Diseases Propagated by Shipping;" "What Diseases Should be Quarantined?" "Responsibility of Nations for Epidemics;" "India for Cholera, South America for Yellow Fever;" "Can a Feasible Plan be Devised to Totally Exterminate Cholera?" "International Intervention to Prevent the Propagation of Cholera or other Epidemic Diseases by Pilgrimages or Immigration."

Discussion opened by Wolfred Nelson, M.D., New York City.

Dr. Nelson said that Surgeon-General Wyman, of the United States Marine Hospital Service, had paid him an unexpected and distinguished compliment in naming him to open a discussion on a theme so important.

Speaking of water-borne diseases, he dealt principally with yellow fever and cholera. With the former he had had an extended experience in the tropics, largely as a practitioner at Panama—and India, for cholera.

Dwelling on the epidemics of yellow fever seen by him, he incidentally referred to the very valuable and effective work done by Dr. Domingos Freire, a Professor of the Faculty of Medicine in the University of Rio de Janeiro, whose preventive inoculations for yellow fever were rich in promise, and already doing good work in Brazil.

Taking up the responsibility of nations in fostering and spreading disease, he said that they should be called to the bar of Nations and there held to a strict accountability. Nations, like individuals, have a responsibility, and should be held to it.

Passing to that most important of themes, quarantine, he described the ideal quarantine as that thought out and perfected by Dr. Joseph Holt, of New Orleans, a perfect system, one meeting every requirement. Dr. Holt's name as an American sanitarian was world-wide.

Following the papers there was discussion, the speakers being Dr. Austin, of the Washington Marine Hospital Service; Dr. George B. Scales, of Mobile, Ala.; Dr. Patton, of New Orleans; Dr. Kelly, of Minneapolis; Dr. Baker, of Illinois; Dr. Ruggles, of San Francisco; Dr. A. N. Bell, of Brooklyn, N. Y., and others.

Dr. Baker read a valuable paper on the death-rate in Illinois, showing, by a perfect set of diagrams, the mortality in that State. The paper presented many new features, particularly showing what an influence immigration was believed to have on disease.

Dr. Flick, of Philadelphia, spoke of Dr. Baker's paper as a magnificent object-lesson and peculiarly timely, showing the value of isolation and disinfection. After a case of diphtheria had been recognized and isolated, an immense spread was prevented—at least five-sixths. So much for modern sanitary science. Diphtheria was a cold-weather disease.

Dr. Lewis, of North Carolina, said that the people must be educated. They will not accept legislation unless they feel and know that it is for their benefit.

Dr. Garlick followed in much the same strain.

Dr. Baker, the reader of the paper, spoke of the dangers of sputa, germ-laden dust, etc. Diphtheria, he said, was found in the mucous membranes, and not in the blood.

Dr. Montizambert, of the Canadian Quarantine Station at Grôsse Isle, Province of Quebec, on the St. Lawrence River, referred to the work done at the station under his charge. He said that it was of the most thorough character. By courtesy of the Canadian Government two officers of the Marine Hospital Service were stationed at Grôsse Isle, saw every detail of the work, disinfection, etc.; that every piece of luggage belonging to an immigrant destined for the United States was tagged by an official of the Canadian Government, also tagged by an officer of the Marine Hospital Service. The appliances at Grôsse Isle were quite new and wholly equal to all demands upon them. Steam at a temperature of 100° and 150° Centigrade was used.

Dr. Austin, of the Marine Hospital Service, spoke of the very favorable reports in the Canadian Quarantine Station on the St. Lawrence, received from its officers on duty there. He stated that it was fully as good as the best in the United States.

Dr. Kelly, of Minneapolis, spoke of his having been one of a commission last year to visit Grôsse Isle and study its exact workings, detail for detail. He described it as being perfect. There they saw three hundred bales of infected rags in flames. When the commission reached Boston they found an antiquated box of some nine feet by eight, as the sole disinfecting apparatus. At that very time vessels were in the harbor of Boston, laden exclusively with baled rags from the cholera infected districts of the continent. Dr. Kelly's energetic and manly praise of the Canadian Station was received with applause.

After the discussion the following resolutions were in order:

"*Resolved*, By the Section on Hygiene, Climatology, and Demography, that the following resolutions be added to the resolutions already adopted by this Section, relating to the temporary suspension of immigration and the exaction of scrupulous cleanliness of all vessels arriving at American ports.

"*Resolved*, That it is also the opinion of this Section that the habitual and thorough disinfection of all personal effects liable to carry contagion of immigrants to the American hemisphere, and of dunnage of crews of vessels carrying these immigrants from any quarter of the globe, and the exaction of scrupulous cleanliness of all vessels arriving at American ports, should be enforced at all times as the most efficient means of greatly lessening the introduction of the seeds of the various contagious diseases, which are now, and have been in the past, almost constantly conveyed by the immigrant classes, and distributed widely among the populations of this hemisphere."

Dr. Gihon declared the work of the Section closed, and in graceful phrases in English and Spanish thanked the members for their close attendance during four days. The Section had had an average of over fifty a day, exceeding any section of the meeting. A vote of thanks to the President for the very able manner in which he had presided was seconded and carried amid applause, when the Section was declared closed.

Should Medical Professors Practise?—The question is now debated whether professors at the Medical Faculty of Paris ought to practise their profession. The *Journal des Connaissances Médicales* thinks they should not; the state looks to them to form medical men, to give them the instruction necessary to enable them to maintain the public health in the most satisfactory condition. They should inoculate the pupils who crowd round them with a love of study, and instil into them scientific principles. It is the Faculty professors who are to educate medical students to be accomplished, able medical men, fitted to foresee illnesses, to diagnose them, and combat them. In order so fulfil this mission, the professor must be a studious, scientific man. Study is, it is contended, impossible in a life occupied in other ways. A medical practising professor has no time on his hands; frequently a day's work is insufficient to visit all his patients. Practising medical men, even the most distinguished and scientific among them, can only keep themselves abreast of the progress directly bearing on medical practice; this knowledge is not sufficient to enable him to form other minds desiring to rank with his own. Bedside teaching is furnished by the clinical professors.

The "Dixie Doctor" is Dead. We are sorry, for it was lively while it lasted.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

OPENING OF THE WINTER SESSION AT THE LONDON MEDICAL SCHOOLS.

LONDON, October 5, 1893.

ON October 2d the medical schools in connection with the London hospitals commenced the winter session. At some a *conversazione*, the distribution of prizes, or a dinner was substituted for the usual introductory lecture. At others, the time-honored custom was duly observed, as the following reports will show.

At St. Mary's Hospital, Mr. Ernest Lane was the lecturer. He referred to the recent changes which had been made in the educational curriculum, and showed the advantages accruing from an extra year's study. This additional term would have to be given to clinical work and to the acquisition of knowledge upon important subjects, such as mental disorders and fevers; studies which had been partially neglected. The added curriculum could not fail to elevate the scientific standard of the medical profession, and to make a diploma more valuable. It might probably lessen the number of those embracing medicine as their calling in life; but by so doing it would mitigate some of the ills of overcrowding in their ranks, among which were excessive competition and a lessening in the value attached to professional services. The lecturer dwelt on the value of a sound knowledge of anatomy, which was the very essence of the art of surgery. It was the beacon and guiding star of the surgeon; it warned of difficulties and dangers unseen, and enabled him to avoid dangers and to rise superior to difficulties. It gave him that knowledge which constituted surgical strength, and endowed him with the manual dexterity requisite to enable him successfully to accomplish any operation.

Among those inducements which might in after-life be held out to those about to enter the medical profession to deviate from the paths of professional rectitude, he referred to the institutions known as Medical Aid Associations, and defined them as a system by which a lay committee or any single unqualified individual derived considerable profit by farming out the services of a duly qualified man, who in return for a fixed salary was required to give his services to any member of the association who needed them. The medical officers of these institutions were at the mercy of a committee composed possibly of artisans, who would not forget to remind him that he was a paid servant. He was so overworked that his health would almost inevitably give way. He must soon lose not only all his self-respect, but also all interest in his work, and he would go about his daily task of drudgery in a purely perfunctory manner. The lecturer alluded to this subject at some length as an example of one of the offences against medical ethics which many a young man might be led into committing. He concluded by advising those who were commencing their medical course of the great need of regular and methodical study.

At University College Mr. Bilton Pollard gave the inaugural address, and said that these opening speeches had a special value, especially in a centre like London, in bringing prominently before the students, at the beginning of their career, that they were members of a corporate body on which their careers would reflect distinction just as its glorious past would reflect distinction on them. The profession was very exacting and would not tolerate any serious rival, but he hoped that, so far as their studies permitted, they would not neglect any of the educational advantages with which London abounded. The metropolis, with its buildings, its museums, and art collections, was an education in itself. In pursuing their studies they must know that accuracy and thoroughness in observation were the foundations of success. If once acquired they had the root of the matter in them. The lecturer then considered some of the ways in which their studies were carried out. He defended instruction by systematic lectures; by attending these they would feel the stimulus of the lecturer's personality, and perhaps imbibe some of his enthusiasm for the subject. The lecturer impressed on those commencing hospital work the duty of making painful manipulations as short as possible, consistently with their objects. With that in view it was needful to determine clearly what they wished to investigate, and then to carry it out as systematically and rapidly as possible. It was positively wrong, as well as unscientific, to fumble about an injured or diseased part with the hope that something might turn up by doing so. It was sometimes said that doctors' feelings became blunted by familiarity with disease. For his part he believed, on the contrary, that this rather tended to show the sympathetic side of their natures. They must bring their own intelligence to bear on debatable subjects and not permit their judgment to be warped by reverence for authority. Had not those immediately preceding their own times broken away from the trammels of authority and gone straight to nature for inspiration and guidance, the wonderful progress of recent times could not have been accomplished. He advised the students to cultivate a kindly and sympathetic bearing toward poor patients, for they might rest assured that if they possessed the personal qualities which secured for them the confidence and affection of poor hospital patients, they owned also the qualities with which alone, as men of self-respect, they would strive to win the confidence and esteem of patients in the higher ranks of life. In his concluding remarks he heartily wished those who were approaching the end of their studies success in life, and trusted that they would carry away with them a high ideal of what true success should be. They were justified in feeling pride in the powers which their knowledge conferred on them, but he cautioned them against posing as knowing more than was known. The difficulty of a great profession demanded that they should be willing to face dangers, difficulties, and opposition, rather than sanction views that were wrong. It was felt by some that the members of the medical profession did not get the public recognition they ought to. The art of healing had an intrinsic nobility about it, but, after all, it was not the profession that ennobled a man, but *vice versa*.

At the School of Medicine for Women, Miss Helen Webb, M.B. London, begged all the students to take a broad view of the work before them. Not only by reading books or by passing examinations would they fit themselves for the practice of medicine. The kind of knowledge which was most useful was not given to many on easy terms. It called for much individual effort, and above all for time, in which the processes of intellectual digestion and assimilation might take place. In order to become a worthy medical practitioner each student must learn to combine a reverent care for accuracy of detail, with a wide view of the relations of things noticed.

During recent years increased importance had been given to preventive medicine. In the good old times, when fever or plague broke out, its presence became at once an accepted fact, and professional energy was employed to the cure of the cases as they occurred. It was most significant of the times, that during the present outbreak of cholera in Europe the literature of the subject had dealt almost entirely with the discovery of the sources of infection and its speedy destruction.

The lecturer at the Westminster was Dr. Hebb, who said that some of the medical schools began their session without a preliminary lecture, and he thought them wise in doing so. In his opinion the strictly medical training at present was not long enough. If three years was needed for the training of a nurse, how much longer should be required for that of a doctor. He complained of the number of medical schools, and thought that it was

ue to their being conducted on a commercial basis. If Mammon had not driven the car medical schools would ong ago have been concentrated as regards all except linical study, and in his opinion this would have been a istinct advantage. As to the dental branch of the pro-ession, of its ethics, if it had any (laughter), it was a uestion whether it would not be wise for the Royal Col-ege of Surgeons to dissociate itself from this branch en-irely. Speaking of the Royal College he thought more ttention should be given to the ability of a candidate to andle surgical appliances. In some cases he was afraid hat men had passed who had as much idea of the deli-ate handling of a surgical appliance as a house painter ad of depicting the Virgin Mary.

Dr. W. Pasteur in his introductory address at the Mid-le sex Hospital dealt with the question of medical educa-ion, more especially from the point of view of the ttitude of mind in which the students should apply them-elves to their studies. At present, he said, bad writing, ad punctuation, and other faults characterized many of he students, and of late years he had observed a greater umber of men who came to grief in writing prescrip-ions, and who had difficulty in appreciating the mean-ng of Latin terms. The standard of a preliminary xamination at present accepted as sufficient by the li-ensing bodies was too low and unworthy of a profession vhich called itself liberal, as, unless the raw material was mproved in quality, it must prove unequal to the educa-ional strain to which it had to be exposed.

At St. George's Hospital, Mr. Timothy Holmes natu ally took the subject of Hunter's life and works, as this vas the centenary of the founder of modern surgery who vas himself so long connected with the hospital. The xtreme value of Hunter's surgical works was pointed out, nd the extent to which they passed beyond any previ-usly published. But Hunter's great merit was that he reated surgery as a branch of the science of life, of every-hing which has been included in the term biology. In is philosophical works he was far in advance of his times, nd the impetus he gave to progress resulted in the con-tant advance visible in every branch of medicine. Hun-er's museum absorbed the labor of his later life and every uinea he could spare. The collection is now the most splendid monument of skilful labor ever raised by one nan, and the most magnificent instrument for the study of nature in the whole world, one of the glories of our ation and the city which possesses it. The students of his school—Hunter's own—were exhorted to follow him n his single love of truth, his simple and sublime disre-gard of worldly rewards, and his determination to base ll his opinions and practice on honest observations of nature.

PERSISTENT SINGULTUS AND LAVAGE OF STOMACH.

To the Editor of the Medical Record.

Sir: In the Medical Record of August 19, 1893, ap-pears an article by Dr. A. Ernest Gallant, of New York. entitled, "Persistent Singultus—Lavage of the Stomach." In the issue of September 30th of the same journal, is another article by Dr. P. C. Coleman, of Colorado, Tex., entitled, "Persistent Singultus Relieved by Lav-age of Stomach."

Dr. Gallant says: "In looking over the more recent literature on this subject, the best résumé of the treat-ment of which was given by Dr. F. W. Putnam, I find no mention of lavage, though it seems to me especially fitting in cases where there are evidences of gastric irri-tation."

Dr. Coleman, in his communication, refers in an in-definite way to an article he had read in some journal, where, after all other means had failed, a case was re-lieved by thoroughly washing out the stomach.

I would refer both gentlemen to an article written by the undersigned, entitled, "Incessant Hiccough Relieved by Lavage of Stomach," which appeared in the Medical Record of December 19, 1891. The case which I there reported was treated by me in April, 1888, while an in-terne in Cook County Hospital, Chicago. Dr. Cole-man's indefinite reference undoubtedly applies to my original article, or an abstract of it, which appeared in several medical journals. Dr. Gallant, in looking up the more recent literature on this subject, failed to run over the Index of the Medical Record, or he would have seen my article.

Very truly,

Everett J. Brown, M.D.

Decatur, Ill., October 13, 1893.

HIPPURIC AND BENZOIC ACIDS.

To the Editor of the Medical Record.

Sir: At the end of page 510 of the Record of October 14th, appears a paragraph from an exchange in which the following sentence occurs:

"As before mentioned it (hippuric acid) is excreted in the urine as benzoic acid." This I believe to be an error. The converse of the statement is known to be true. *Vide* Neubauer and Vogel, Seventh Edition, trans-lated by Cutler, page 198, II. A. 2. a.

Respectfully,

Howard Lilienthal, M.D.

33 East Thirty-first Street, New York.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week end-ing October 14, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	46	17
Scarlet fever	43	2
Cerebro-spinal meningitis	1	3
Measles	63	2
Diphtheria	122	23
Small-pox	16	2
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

Effects of Tobacco on Physical Development at Yale and Amherst.—Statistics on this controverted subject are rare. The following remarks are by Dr. Jay W. Seaver, of Yale, a reliable authority. They are based upon ob-servations made of a college class of one hundred and eighty-seven men during their first and final years. The growth of the men in four of the principal anthropomet-rical items, of varied character, is as follows:

	Weight. Pounds.	Height. Inches.	Chest girth. Inches.	Lung capacity. Cubic inches.
Non-users	11.87	.894	1.74	21.6
Irregular users	11.06	.788	1.43	14 45
Habitual users	10.66	.721	1.276	12.17

If this growth be expressed in the form of percentage, it will be seen that in weight the non-user increased 10.4 per cent. more than the regular user, and 6.6 per cent. more than the occasional user. In the growth of height the non-user increased 24 per cent. more than the regular user, and 14 per cent. more than the occasional user. In the growth of chest girth, the non-user has an advantage over the regular user of 26.7 per cent., and over the oc-casional user of 22 per cent., but in capacity of lungs the growth is in favor of the non-user by 77.5 per cent. when compared with the regular user, and 49.5 per cent. when compared with their regular user. It has long been rec-

ognized by the ablest medical authorities that the use of tobacco is injurious to the respiratory tract, but the extent of its influence in checking growth in this and in other directions has, I believe, been widely underestimated. Dr. Seaver's conclusions in regard to the dwarfing effect of tobacco are fully corroborated by the following statement by Professor Hitchcock, M.D., of Amherst College, more recently published: "The matter of tobacco smoking as an influence upon the physical development of Amherst students has been studied in the history of the class of '91. Of this class 75 per cent. have increased in their measurements and tests during the whole course, while 29 per cent. have remained stationary or fallen off. In separating the smokers from the non-smokers, it appears that in the item of weight the non-smokers have increased 24 per cent. more than the smokers; in height they have surpassed them 37 per cent.; and in the chest girth 42 per cent. And in the lung capacity there is a difference of 8.36 cubic inches (this is about 75 per cent.) in favor of the non-smokers, which is three per cent. of the total lung capacity of the class."

The Late Dr. Maxwell.—An alumnus of Charity Hospital writes: "Dr. E. A. Maxwell, whose death is briefly mentioned in to-day's MEDICAL RECORD, was a man who influenced a number of young hospital doctors in a salutary way, for which, and his unassuming kindness and ever ready advice and help, he will always be gratefully remembered by them. During the year and a half the writer of these lines served in the wards of Charity Hospital, he, as well as others of the staff, seniors and juniors, always found in Dr. E. A. Maxwell a full and ready man concerning the cases that were transferred to the dead house. His advice and instruction were always given in a manner that left nothing to be desired in so far as patient and painstaking kindness could demand. His kindnesses were of a nature that concerned not only present needs and curiosity, but had necessarily an important influence on the future interests of the young doctors; all of which, now looking back over nearly fifteen years of practical work, comes back to us, and makes us feel what a good fellow he was, and how much we lost sight of the superior man in the student who was teaching us. This unselfish interest did not end with one's departure from hospital life. However casual the meeting, one was made to feel that this man had not changed toward one. Not only his experience and learning were shared, but his time also, and now, all that we can do is to be sorry that we shall not be able to repay him the good services he unstintedly gave us."

New Remedies in Skin Diseases.—The *Medical Bulletin*, September, 1893, contains Dr. John V. Shoemaker's "Remarks on some New Remedies in the Treatment of Diseases of the Skin." As regards the local remedies lately introduced, most of them are efficacious by virtue of their antiseptic properties. The success of iodoform in skin affections of an inflammatory nature is well known. On account of its diffusive and offensive odor, aristol and europhen are welcome substitutes. Europhen contains 27.6 per cent. of iodine, is light brown in color, has a faint but not unpleasant odor, is insoluble in water or glycerine, but dissolves in alcohol, ether, chloroform, and fixed oils. It is easily decomposed by light and heat, and should be kept in a dark place that is dry and cool. Europhen is devoid of toxic properties, adheres firmly to surfaces with which it may be placed in contact, and may be employed as a powder or an ointment. It has an excellent influence upon chronic ulcers, superficial epithelioma, sycosis, chronic eczema, etc. A mixture of equal parts of europhen and aristol is an admirable dressing for fissured eczema, psoriasis, and syphilitic ulcers. In certain cases, this mixture is more efficient than either of the substances used alone. Losophan contains eighty per cent. of iodine. It is an irritant substance, adapted to chronic affections, and must be closely watched. Where there is thickening of integument and itching, losophan is of great service, as in chronic eczema. In prurigo, urticaria, paræsthesia, etc., it is very useful; and in the later periods of sycosis, in chronic acne, in the second stage of rosacea, and in parasitic conditions.

Thilanin is a combination of sulphur with lanolin, and mixes with water and oily fluids. It is available in many forms of eczema, in sycosis when inflammation is severe, and in herpes. Thiosinamin has been lately brought forward as a constitutional remedy, especially in lupus and other local forms of tuberculosis. It has a softening influence upon scars, thus removing the effects of contraction and pressure. Thiol is a sulphur compound, introduced as a pleasant substitute for ichthyol. It is admirable for raw surfaces, in herpes zoster, and dermatitis herpetiformis. Thio, resorcin, and thiophen are compounds containing sulphur. Thiophen di-iodide is employed for the same purposes as iodoform. Alumnol is a new remedy that is antiseptic, astringent, and in concentrated form, a cauterant. It may be used in aqueous solution, as an ointment, or a plaster, and is suitable for ulcers, bed-sores, chancre, herpes, erosions, abscess cavities, etc. Tumenol is obtained from the fusion of bitumen and oleum. It has been employed with success in acute eczema with weeping, in burns of the first and second degree, and in superficial and deep ulcerations. Compound stearates are combinations of stearic acid, obtained from suet, with copper, manganese, mercury, and zinc, in the form of powders. These powders may be made up into ointments. The stearate of zinc may be used as a dusting powder in intertrigo, hyperidrosis, and acute vesicular eczema. It is also useful as a vehicle for many other drugs. Piperazin, used in gout and other manifestations of the uric acid diathesis, when given internally mitigates paræsthesia that is dependent upon hepatic incompetency. Thymol possesses antiseptic virtues, and is of value in acne, alopecia circumscripta, eczema, psoriasis, and ringworm. Trichloracetic acid is applied to warts, vascular nævi, pigment patches, and indolent ulcers.

Transplantation of Eyelashes.—It sometimes happens in association with a punctured wound of the eye that an eyelash is cut off or torn from its attachment and transplanted bodily into the anterior chamber of the eye. This of course is a very untoward occurrence, because the intruding hair not infrequently sets up severe inflammation, and, if left long enough, it may set up destructive imflammation. Apart, however, from this contingency, if the root-sheath be carried in with the eyelash this may, and often does, contract adhesions with the iris or cornea and form a cyst having for contents epithelial cells derived from those of the sheath. In one instance, mentioned by Mr. Henry Power at a recent meeting of the Ophthalmological Society, the last took root on the iris and went on growing until it formed coil upon coil of hair within the anterior chamber. The nature of this curious foreign body was not very apparent, but when it was identified it was removed with a successful result.—*Medical Times.*

For Bronchial Affections.—A useful combination in the catarrhal affections of influenza, in cases of ordinary bronchitis, and in cases of broncho-pneumonia due to exposure, especially when there is an associated pleuritis, is the following:

Phenol salicylate, or cinchonidine salicylate	from 3 to 5 grains.
Terpin hydrate	" 3 to 5 grains.
Codeine sulphate	" ½ to ¼ grain.

Mix. Dispense in capsule.
Dose: One capsule with water every two to four hours.

This, or a similar prescription, is likewise beneficial in the "colds," bronchitic, pneumonitic, and pleuritic, that often retard recovery or cause "set-backs" in cases of pulmonary tuberculosis improving, or apparently well-under hygienic and other appropriate treatment. In simple pleurisies and in rheumatic pleurisies the terpin hydrate may be omitted.—*Dr. S. Solis-Cohen.*

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Original Articles.

PRACTICAL POINTS IN THE TREATMENT OF HIP DISEASE.[1]

BY A. B. JUDSON, M.D.,

ORTHOPEDIC SURGEON TO THE OUT-PATIENT DEPARTMENT OF THE NEW YORK HOSPITAL.

HIP disease may be called a semi-malignant affection because of its duration and its destructive quality. But it is almost never fatal. In every large community there are many healthy and active adults who are scarred and deformed by hip disease, without ever having had adequate treatment. In all stages of the disease it may be predicted, excepting in patients who are exceptionally unfortunate in their surroundings, that the time will come when the forces of nature will rally and repair take the place of disintegration.

In approaching the subject of treatment it is necessary to bear in mind that the destructiveness and inveteracy of this disease are largely the result of mechanical environment. Its full counterpart in the upper extremity is not found, evidently because in the upper extremity the focus ignited in the cancellous tissue is, as a rule, resolved at an early stage by reason of the exemption of the upper extremities from the labors and hardships attending locomotion. We cannot do better, therefore, than to nullify pernicious mechanical environment. By so doing we directly banish trauma from the part affected, and indirectly fortify the general health, and in both ways invite the advent of a "natural cure."

The three cases which are to be cited illustrate the good effect of mechanical treatment, in the most unpromising cases.

CASE I.—A boy, six years of age, presented an enormous abscess, and all the usual symptoms of the last stage of the disease, which had continued in the right hip for nineteen months. Exsection of the joint had been urged by a surgical attendant. The abscess opened spontaneously on the first day the patient was seen, and before treatment could be begun. The child's general condition was bad. The limb was greatly adducted and flexed, and the slightest disturbance of the joint caused severe pain. Mechanical treatment was begun the sixth day after the patient was first examined. Pain was relieved at once. He was enabled to be out of bed without delay, and out of the house nearly every day, throughout the entire course of treatment, which lasted two and a half years. The affected joint received the benefit of fixation, or a reasonable degree of immobilization, and was thoroughly protected from the traumatic incidents of locomotion. The adduction of the limb gradually and painlessly disappeared as the boy made use of the limb, protected by the splint, in walking, and flexion was reduced till the limb was in a position favorable for locomotion. Wearing the splint the patient pursued the ordinary occupations of a boy of his age, while the reparative process supplanted the ravages of disease. The abscess already referred to was followed at irregular intervals by other purulent collections which were incised or allowed to open spontaneously. At one time there were nine sinuses about the joint, all derived from diseased bone. Five of these extended in a line down the outer side of the thigh from the trochanter to near the middle of the shaft of the femur, as seen in Fig. 1. The position of these sinuses, from one of which a sequestrum was extruded, and the attachment of the resulting cicatrices to the bone showed that the shaft of the femur was, to a great extent, involved in the destructive process. The patient's condition

FIG. 1.

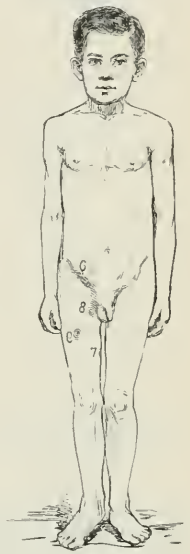

FIG. 2.

six months after the cessation of treatment is shown in Figs. 1 and 2. The limb is in good position, neither abducted nor adducted, and flexed at a slight angle, enough to allow him to sit comfortably, and yet not enough to interfere with graceful locomotion. He walks with firmness, runs fast, and never uses a cane. There is practically no "apparent" shortening, that is, the shortening due to adduction and flexion. The "real" shortening is one inch, due partly to changes in the femoral head and neck, but more to the fact that the skeleton of the affected limb is smaller than that of the well limb. This difference is seen in the difference between the outlines of the feet, as shown in Fig. 3, and is also due partly to the fact that the growth of the affected limb has been retarded by disease, while the development of the well limb has been forced by over-exertion for so long a period. The position of the sinuses is shown in the figures. The scars are depressed and attached to the deep fasciæ and bone. They are numbered in the order in which the sinuses appeared. Figs. 1, 2, 4, 5, 7, and 8 are copied from photographs.

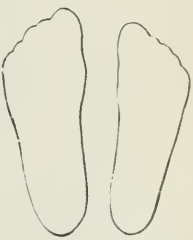

FIG. 3.

CASE II.—A girl, three years of age, had a family history in which the mother, the maternal grandmother, and

[1] Presented at the Pan-American Medical Congress, held at Washington, September, 1893.

three paternal uncles and aunts had died of pulmonary tuberculosis. (The family histories in Cases I. and III. were remarkably free from similar incidents.) The disease had been present in the right hip a year and more. Treatment had been by the immovable plaster-of-Paris dressing, the wheel crutch, and by portative apparatus in which there was provision for motion at the knee, but not for traction. When first seen, the child presented the marked adduction and flexion characteristic of an advanced stage. She had suffered for several weeks the severe pain which forebodes an abscess, and is due probably to the retention of pus in the cancellous tissue of the

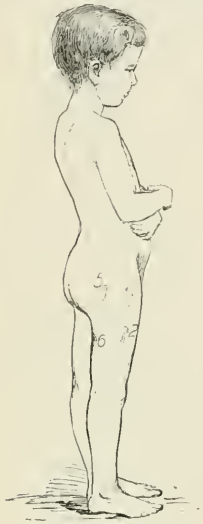

FIG. 4.

FIG. 5.

bone. Soon after the application of mechanical treatment the position of the limb improved, adduction giving place to abduction, and flexion being materially reduced. The pain ceased, as the result, perhaps, of the escape of pus from the hard shell enclosing the cancellous tissue. Five months after treatment began the pus was released from the soft parts by incision, and in the following eighteen months five other sinuses were established spontaneously or by incision. Their location and order are indicated in Figs 4 and 5, which show the child's condition eight months after the cessation of treatment. The scars are attached to periosteum and deep fasciæ. Her health is perfect and she walks and runs without assistance of any kind. The position of the femur is favorable both for walking and sitting, there being no abduction or adduction, and but a moderate degree of flexion. The real shortening is only one-fourth of an inch. The outlines of her feet are shown in Fig. 6. When she walks with care it is difficult to perceive any defect, although the motion in the joint itself is so slight as to be of very little use in locomotion, advantage being unconsciously taken of the flexibility of the lumbar region of the spine and of the unimpaired mobility of the sound hip-joint. Fast walking and running develop a limp, but not enough to exclude her from the ordinary pastimes of youth.

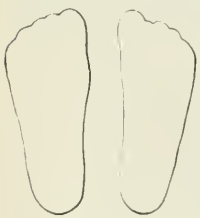

FIG. 6

CASE III.—A boy, seven years of age, had suffered from disease of the right hip for four years. His father was a dealer in surgical instruments and the boy had worn elaborate appliances, the chief defect of which had been in the slight construction of the frame of the portative splints which had failed to make sufficient traction or to relieve the affected joint from the weight of the body in standing and walking. The usual signs of an advanced stage were present, and an abscess was pointing when

FIG. 7.

FIG. 8.

treatment commenced. Improvement in the position of the limb was soon seen. In course of time four sinuses were established, either spontaneously or by incision, as seemed to be necessary. The case progressed favorably and the duration of treatment was four and a half years—longer than was necessary through excess of caution and anxiety on the part of the father. Figs. 7 and 8 show the boy's condition eighteen months after all treatment was discontinued. Scars 2 and 4 are attached to the underlying bone. He takes long walks without fatigue, is a good skater, and walks and runs with great speed, although motion in the joint is practically wanting. He never uses a cane. When walking carefully there is no defect in his gait. There is one-half inch of real shortening. The outlines of his feet are shown in Fig. 9. The position of the limb is good, there being a moderate degree of flexion, enough to facilitate sitting, but not enough to interfere with graceful locomotion. There is neither abduction nor adduction.

FIG. 9.

Since these cases were reported the patients have retained their health and activity, but two of them have lost some of the symmetry above noted. The femur became flexed and adducted, not enough to compromise ability in locomotion, but yet enough to give a defect to the gait. This is evidently the result of a failure to re-

tain the prescribed natural rhythm of walking. The third patient, becoming a medical student, understood and appreciated the importance of rhythmical locomotion, and retains the symmetry recorded.

These cases are not presented to illustrate the achievements of mechanical treatment in early and promising cases, but to show what should be the result in cases of the worst kind taken in advanced stages, provided the assistance of intelligent and thrifty parents is assured. In favorable circumstances and with treatment begun at the earliest sign of a focus, the result should be, and sometimes is, such as to make it difficult by careful examination and measurement to discover any asymmetry or trace of disability.

The same general rules or principles of treatment hold good in the earliest stage and in the most desperate and advanced stages. Treatment should make sure of four things: 1. Preservation of the general health throughout the treatment; 2, the arrest of motion in the joint in the acute stage; 3, the removal of the weight of the body from the joint in all stages; and 4, provision for final symmetry and locomotor ability.

The first consideration is the general health of the patient. On this we rely, in the absence of specific medication and established operative procedures, for the natural return of the affected part from progressive destruction to progressive repair. Can a patient thus beset be better off than when equipped so that he can rise from his bed after a painless sleep and pass the day up and dressed, and with his schoolmates and play-fellows, his appetite and respiration stimulated by happy hours passed in the fresh air and sunshine? With suitable mechanical equipment the patient should not, and will not if left to himself, pass an hour of his waking time in the invalid's bed.

Second, the arrest of motion in the joint may be amply secured by the traction exerted by the hip-splint in those stages in which it is required by the painful condition of the joint and the apprehension which the very thought of articular disturbance excites in the mind of the patient. Absolute immobilization is out of the question from the mechanism of the hip-joint, but fixation, or a reasonable degree of immobilization, is easily produced, and conveniently maintained.

Third, the patient equipped with the hip-splint, when standing and walking, is prevented from putting his weight on the joint. The heel cannot reach the ground. The patient sits on the perineal strap of the apparatus, which is essentially a crutch-head applied to the ischiatic instead of the axillary region. With this arrangement he wears a high sole on the well foot to make up for the factitious length which is given by the splint to the affected side. It is not entirely fanciful to say that the patient is sitting while walking, because he alternately stands on the well foot and sits on the perineal strap. An adult patient tells me that when tired he rests, while still erect, by leaning against some support and sitting on the hip-splint. It was thought at one time that it was impossible for a patient to go for any time touching the ground with only one foot. With the hip-splint, however, children run about for years, putting their weight on the well limb alone, the affected leg being thus converted into a pendent member, like the arm.

Fourth, the patient while wearing the hip-splint may be induced by instruction and drill to give up the "false time" of his footsteps, which is the chief cause of the deformity and limp of hip disease, and to return to the natural rhythm of human locomotion, in which equal time is given to the two feet. The result of walking habitually in this way is at once the abolition of a great deal of the appearance of lameness and in time the correction of deformity, because the adducted limb will pass, without conscious effort on the part of the patient, from adduction to abduction (with, at the same time, and for the same reason, a decrease in flexion) in order to place itself in that position in which it can best do its half of the work of progression, thrown upon it by the adoption, or rather the resumption, of natural rhythm or "correct time" in walking.

A few words are in place describing the apparatus and its application. Its frame is made of steel. In use it does not require to be bent, as so many pieces of orthopedic apparatus do, therefore it may be well, but not too sharply, tempered. It consists of upright and pelvic band, as shown in Fig. 10. The upright, shown in Fig. 11, extends from the ground to a point about midway

Fig. 10.

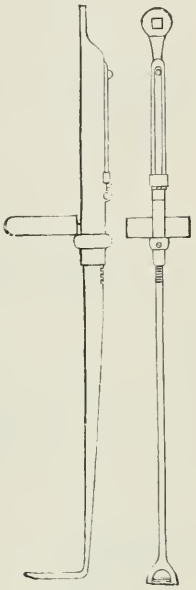

Fig. 11.

between the iliac crest and the trochanter. It is flat, with its width laterally disposed, and its thickness anteroposteriorly, an arrangement by which the strength of the metal is in the direction of the strain when the patient's weight is borne by the instrument. It is composed of a bar and a box, the former being propelled in the latter by a rack and pinion, and held at the point of election by suitable mechanism. The box is attached above to

Fig. 12.

the pelvic band, and the bar ends below in the foot-piece, which is shod with leather and carries two leather straps. A high sole for the well side is conveniently carved from a block of light wood and fastened to the sole of the shoe in the manner shown in Fig. 12. Properly shaped and stained it is quite as presentable as the more expensive cork sole. A knee-piece is adjustable on the upright, and, being of soft steel, is easily adapted to the size of

the lower part of the thigh. If the patient is tall and requires a longer upright, this piece is carried on the bar, instead of, as in Figs. 10 and 11, on the box, thus doing away with the necessity of increasing the length of the latter with the increased length of the upright. A piece of webbing is buckled around the upright and the limb at the lower part of the thigh, and a leather strap around the upright and the lower part of the leg. The pelvic band, shown in Figs. 10 and 13, is a nearly semicircular piece of bar steel, covered with leather, or better, with hard rubber, the angle of its attachment to the upright being adjustable and firmly fixed by a bolt and nut. It carries the perineal strap of webbing, padded with blanketing and covered with canton flannel. A strip of adhesive plaster from one and one quarter to three inches wide, and ending below in a buckle, extends on each side of the limb from the middle of the thigh to the lower part of the leg. The plaster is protected by a legging made of twilled muslin provided with eyelets for lacing.

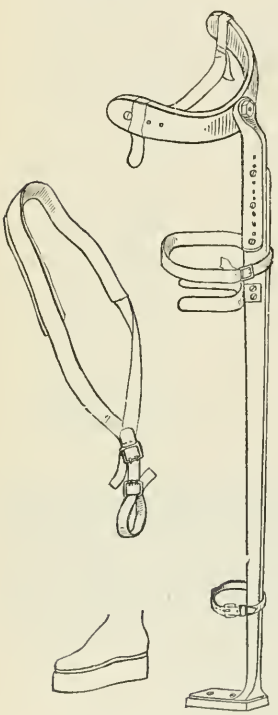

Fig. 13.

To apply traction to the limb the leather straps attached to the foot-piece are buckled to the adhesive plaster strips attached to the limb, the perineal strap is buttoned over the ends of the pelvic band, and the rack is propelled in the direction of the foot by the pinion or key. In practice, if the patient is more than a mere child, he uses the key at will, and may be depended on, if the joint is in a painful or tender condition, to keep up steady traction as long as there is any indication for its use. It was thought at first that traction thus applied relieved pressure on painful articular surfaces, but there is excellent reason to believe that its good effect is due to the fact that it assists the patient in his conscious and unconscious (voluntary and reflex) efforts to keep the joint from motion, in other words, that it produces fixation, or a reasonable degree of immobilization. The knee-piece is useful in the same way. Worn at the lower part of the shaft of the femur, it hinders motion at the knee, and, *pari passu*, at the hip. There is probably no more distressing sight than that of a patient in the acute stage of hip disease, and no resort of surgery is more simple in *modus operandi* and more certain to give relief than the application of traction in this way.

In this stage the apparatus should be applied although abscesses and great deformity are present, as in the exceptionally difficult cases related above. The end of the pelvic band may extend obliquely over the abdomen on account of the adduction of the limb. It may even be necessary at the beginning to attach the perineal strap by buckles instead of loops, to gain for it a suitable length, and in some cases to apply it to the perineum on the sound side. But with care and gentleness the apparatus can be arranged in some way so that a slight and increasing amount of traction is effected. Immediate relief from pain is followed soon by reduction of the deformity, so that in a few days the restored symmetry of the patient's figure will enable him to wear the splint properly adjusted and comfortably. The pelvic band may then be brought down to its proper place on a level midway between the anterior superior spine of the ilium and the pubic bone. It may thereafter be kept at that level if the perineal strap is of the right length and suspended by loops instead of buckles. A bed-ridden patient treated in this way soon recovers strength from the return of sound sleep, and before long seeks to leave his bed and try walking without crutch support except that afforded by the perineal strap. A high sole is attached to the shoe of the well foot, and a shoulder-strap, shown in Fig. 13, transfers the weight of the splint to the opposite shoulder, and he is instructed in the necessity of acquiring, as soon as it can be done by daily effort, the habit of moving his feet in correct time. He then ceases to be seen at his home or in the hospital ward, and becomes an "office patient" or an "out-patient."

The splint as thus far described is to be worn day and night. It makes traction on the limb and protects the joint from the traumatisms of walking. The latter is necessary in all stages of the disease, but there are long periods when traction is not necessary, when all that the patient requires is a perineal or ischiatic support to keep the affected limb from reaching the ground. The adhesive plasters and the rack and pinion and other machinery for maintaining traction may therefore be dispensed with during a large part of the treatment. The simple upright, shown in Fig. 13, may then be used instead of the upright shown in Figs. 10 and 11. Alteration in the length of this upright and adjustment of the knee-piece are provided for in a simple manner. The adhesive plasters are removed from the limb and the leather straps from the foot-piece, but in all other respects the apparatus is applied and worn as if it were a traction splint. Thus simplified, however, it is essentially an ischiatic crutch, and, like any other crutch, it is to be laid aside at night.

In closing it may be said that the apparatus, thus arranged as a crutch, may be useful in many other affections besides hip disease. If its simplicity and convenience were generally recognized it might facilitate the treatment of any disease or injury of the lower extremity in which it is desirable to let the patient take exercise without using the affected limb.

Treatment of Herpes Zoster.—Brocq recommends the following ointment:

R. Boric acid	1 part.
Oxide of zinc,	
Starch	āā 2 parts.
Vaseline	6 parts.
Lanoline	9 parts.

The vesicles are carefully opened by means of a needle sterilized in the flame of an alcohol lamp, and are then washed with a boric acid solution containing a small proportion of alcohol. After this they are covered evenly with the above paste, and powdered with starch, and over all is placed a thick layer of wadding. If the pain is very severe, a little chlorohydrate of morphine or cocaine is incorporated with the ointment.

The Microbes of Bank-notes.—Two bacteriologists of Havana, Acosta and Grande-Rossi, have been studying the microbes of bank-notes. They have proved that the weight of these notes increases in the course of circulation by reason of foreign matter. Then microbes appear, their number exceeding nineteen thousand in one instance. The presence of a septic bacillus that rapidly kills animals inoculated with it, the specific microbe of the bank-note, has also been discovered. Besides this, for which the name bacillus septicus aureus has been suggested, there were eight distinct pathogenic species found upon the Havanese notes, among which were the bacilli of tuberculosis and diphtheria, and the streptococcus of diphtheria.

QUINSY AND ITS TREATMENT BY EARLY INCISION.[1]

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THE subject of this paper may perhaps seem better suited to a society of specialists rather than to an organization like this made up for the most part of general practitioners. And yet there is probably no one present who has not at some time been obliged to act promptly and without the aid of a surgeon in a severe case of phlegmon of the fauces. The writer, at all events, has been placed in such a situation more than once, and a recent experience of the kind has led him to make a somewhat extended study of the subject.

Until within recent years, the affection we are about to consider was included under the head of tonsillitis. Fletcher Ingalls,[2] in the latest edition of his work, and practically all systemic writers on medicine, still fail to separate the disease from inflammatory processes located in the tonsil, though Ingalls admits that the abscess forms outside the gland itself in at least four-fifths of the cases. Bosworth,[3] however, and laryngologists generally, now usually employ the term of peritonsillar abscess as more correctly describing the condition in the throat. I have retained the old name, quinsy, as leaving the ground open for discussion as to the exact seat of the pus in the most common form of the affection.

Quinsy is not a very rare disease and in private practice probably the majority of cases are seen in the first instance by the family physician rather than by the specialist in throat diseases, though the aid of the latter may be required later. A severe case of quinsy is never a light matter to the patient. Though of almost uniformly favorable prognosis there is, perhaps, no affection which for a time causes such acute discomfort to the individual affected with it. Most cases result in the formation of pus, and until this is evacuated, either spontaneously or by incision, the patient's misery is extreme. Many practitioners and even some surgeons, among them Verneuil,[4] have expressed themselves as opposed to instrumental interference. But the general practice at the present day is to give vent to the pus as soon as its situation can be determined. The instantaneous relief given by an opening in the right place is most striking. On the other hand, scarification of the tonsils, as is sometimes recommended, does no good, and usually aggravates the patient's condition. As an illustration, I will narrate briefly a case seen by me last spring. The patient was a servant in a family in my neighborhood and was under the care of a physician living in a distant part of the city. I was roused in the night and asked to see her at once, her husband telling me that she was in danger of suffocation. I found the patient in great distress, presenting the picture with which you are all familiar. I learned that she had been ill for some three days and that both tonsils had been repeatedly lanced on the previous day with the result of simply adding to her discomfort. With some difficulty I succeeded in opening the patient's mouth sufficiently to get a fair view of the interior. Both tonsils were enlarged and red and showed also a white follicular deposit. The uvula was very œdematous, and the soft palate on the left side was enormously swollen and bulging and livid red in color. To the finger it felt elastic, with a doubtful sense of fluctuation. After applying a solution of cocaine I made a free incision at a point about midway between the base of the uvula and the last upper molar tooth on the left side. There was at once a gush of pus, with immediate relief to the patient, and in two or three days she was well.

I afterward discussed the case with the attending physician. He frankly admitted the good results of the incision through the soft palate, but believed that the operation was attended with the danger of wounding some of the large vessels in the neighborhood. As he is a man of large experience and good judgment, and such danger had never occurred to me, I thought the subject would repay investigation. I have asked the opinions of a number of medical men, including both laryngologists and general practitioners, and their answers have been pretty much to the same effect. The specialists have all said that the abscess is usually situated outside the tonsil and lies in the anterior or posterior pillar of the palate or in the palate itself. They believed in giving free vent to the pus wherever found, and were convinced that the operation was attended with no danger if properly performed. The general practitioners were naturally rather less positive in their opinions. They admitted that it was good practice to let out the pus when you were sure where it was, but that it was not always easy to find.

On consulting the literature of the subject I found the most recent authorities agreed as to the location of the suppurative process and the proper point for incision. Chiari,[1] Bosworth,[2] and Shech [3] state that the inflammation begins in the connective tissue about the tonsil and usually extends into the soft palate. They advise that the opening should be made at the point I have already indicated, namely, midway between the uvula and the upper alveolar process of the affected side.

Of 32 cases seen by Chiari, in which pus formed and was evacuated spontaneously or by incision, the point of opening was through the soft palate in 18 cases, through the tonsil in 8, through the posterior faucial pillar in 2, through the anterior pillar in 1, near the ramus of the lower jaw in 2, and in 1 case the place of discharge was not found.

Bosworth's statistics show that of 130 cases of quinsy, the process was located in the soft palate in 115, in the posterior pillar of the fauces in 11, in 2 cases the abscess developed beneath the tonsil and discharged upon its surface through one of its crypts, and in 2 cases the posterior wall of the pharynx was involved.

In the few cases of which I have notes, seven in number, all seen in private practice during the past three years, the soft palate was uniformly the chief seat of suppuration.

Rice,[4] in a careful study published some two years ago, came to the same conclusions as the above, except that he usually prefers to puncture through the anterior pillar of the fauces.

All of these writers, with the exception of Bosworth, regard the operation as perfectly safe when performed with a good illumination and with care. Bosworth expresses himself as follows: "In making this incision one always bears in mind the proximity of the large blood-vessels of the neck, and the possible danger of wounding them. I have incised the phlegmon in a very large number of cases of quinsy, and in no case have I done it without a certain degree of nervousness on this account; and yet it seems to me that if one recognizes the true pathological condition, and has localized the suppurating point, one ought to feel confidence in the manipulation. When, however, we consider that so great a surgeon as Chassaignac, in operating upon a faucial phlegmon, wounded what was probably the internal carotid artery, necessitating the ligation of the common carotid, it would seem to be an accident that might happen to anyone. Similar instances are reported by Duke and Murphy."

Bosworth's caution would appear to be well founded when we read what the standard anatomists have to say on this point. According to Holden,[5] "The tonsil lies close to the inner side of the internal carotid artery. It

[1] Read before the American Climatological Association at its tenth Annual Meeting, May 26, 1893.

[2] Diseases of the Chest, Throat, and Nasal Cavities, 2d edition, p. 362.

[3] Diseases of the Nose and Throat, vol. ii., p. 125.

[4] Gazette des Hôpitaux, 1879, p. 162.

[1] Wiener klin. Wochenschrift, 1889, ii., p. 820.

[2] Loc. cit.

[3] Diseases of the Mouth, Throat, and Nose, translated by Blaikie, p. 135.

[4] MEDICAL RECORD, 1891, vol. xxxix., p. 125.

[5] Manual of Dissection of the Human Body, 4th ed., p. 186.

is only separated from this vessel by the superior constrictor and the aponeurosis of the pharynx."

Gray [1] also warns us that "the relation of the internal carotid with the tonsil should be especially remembered, as instances have occurred in which the artery has been wounded during the operation of scarifying the tonsil, and fatal hemorrhage has supervened." Quain [2] does not treat of the surgical relations of the artery, but simply states that "it rests on the rectus anticus major muscle and has the pharynx and tonsil on its inner side." Cruveilhier [3] says, "the relation of the artery with the external surface of the pharynx explains how this vessel may be wounded from the interior of that cavity. Sometimes one of its curves approaches the region of the tonsil; and this may, perhaps, have been the case when the artery has been wounded by an instrument directed transversely outward and carried into the tonsil, either to open an abscess or to excise the gland." Leidy,[4] expresses himself in terms almost identical with those of Quain. Tillaux [5] also asserts that "the tonsil is only separated from the internal carotid by the thickness of the pharyngeal wall," and that "the relations of the artery with the gland should be present to the mind of the surgeon each time that he opens an abscess of the lateral wall of the pharynx."

The views I have just quoted of the relations of the internal carotid artery, are the same as those generally taught by lecturers on anatomy at the present day.

The special studies of the laryngologists should, however, lead us to a modification of these views. Delavan [6] was, I believe, the first in this country to question the accuracy of the observations of the older anatomists. As long ago as 1880, he wrote that "the relations of the tonsil to the internal carotid artery are not so intimate as commonly is supposed, for, between the lateral wall of the pharynx, the internal pterygoid, and the upper cervical vertebræ, there is a space filled with cellular tissue, the 'pharyngo-maxillary interspace,' in the posterior part of which are located the large vessels and nerves, and which lies almost directly backward from the pharyngo-palatine arch. The tonsil corresponds to the anterior part of this interspace, so that both carotids are behind it, the internal carotid 1.5 centimetre, the external carotid two centimetres distant from its lateral periphery. Hence, the danger of direct injury to the internal carotid in excision of the tonsil is infinitely small."

Zuckerkandl [7] also has recently made a most careful study of this region. The drawings made from his dissections show that the pharyngo-maxillary space is divided by the stylo-glossus and the stylo-pharyngeus muscles into an anterior and a posterior chamber. The anterior chamber is contiguous to the tonsil; the posterior chamber contains in its hindermost part the internal carotid artery, the jugular vein, and the vagus nerve. The two chambers are filled with fat and loose cellular tissue and communicate with each other by a very small opening, which gives passage to the inferior palatine artery.

It is probable, as suggested by Chiari, that the anterior chamber of the pharyngo-maxillary space is alone involved in the great majority of cases of quinsy. The firm wall formed by the muscles described by Zuckerkandl prevents the passage of the pus into the posterior chamber, whereas the tissues of the soft palate yield readily to the advancing inflammation. In rare instances, however, the pus does force its way backward between the stylo-glossus and stylo pharyngeus muscles, with the results to be indicated later.

The soft palate, through which the evacuating incision is usually made, is distant in adults at least three centimetres from the vertebræ against which lies the internal carotid artery. Even in the child the space is considerable, larger relatively than in the adult. I have lately had the opportunity of dissecting a number of new-born infants, and in no case did the distance between the palatal border and the anterior surface of the spinal column measure less than 1.5 centimetre. These measurements apply to the normal pharynx. In the condition we are considering, the soft palate is pushed so far forward by the purulent collection that its anterior margin must be nearly double its normal distance from the vertebræ. An incision of even two centimetres in depth could not, therefore, possibly reach the internal carotid artery. The ascending pharyngeal artery, which has been thought to be wounded in some cases, also lies on the vertebræ, and is therefore equally out of reach of the knife.

Having apparently shown the impossibility of wounding the carotid artery, what are we to say of the cases alluded to by Bosworth, Gray, and Cruveilhier. I have analyzed every case cited by these writers and have failed to find one in which the autopsy showed this artery to have been wounded by the knife. In those cases in which no autopsy is recorded, it is evident from the clinical history that the bleeding vessel was diseased before the surgeon intervened. Let us first take the cases referred to by Bosworth, those of Chassaignac, Duke, and Murphy.

Chassaignac [1] reported his case to the Surgical Society of Paris. It was that of a man with a fluctuating tumor at the base of the lower jaw on the left side, projecting into the pharynx. There was no pulsation and Chassaignac made the diagnosis of retro-pharyngeal abscess. An incision was made with no result. A second incision nearer to the median line was followed by a jet of arterial blood. The hemorrhage continued in spite of local pressure and was only checked by ligature of the common carotid. It was a question whether the tumor was an abscess involving the vessels or was an anomaly of the internal carotid. It has apparently escaped the notice of all commentators on this case of Chassaignac, that he reported at another meeting of the same society, some two weeks later, that the tumor still persisted, leaving its nature still more in doubt, whether a phlegmon, an aneurism, or a neoplasm. It is possible, from the location of the incision, that the case was one of abnormally large pharyngeal artery, such as those recently described by Farlow.[2]

Duke's [3] case was that of a man who had received a blow on the side of the head. During the following year he complained of headaches and sometimes of a rushing sound in the head. He then had symptoms of a sore throat. Examination showed swelling and inflammation of the right tonsil and fauces, accompanied with difficulty of swallowing and fever. On digital exploration with the view of incising the supposed abscess, strong pulsation was felt. An aneurismal bruit was also heard behind the angle of the jaw. Duke refused to puncture the swelling, but an incision by a less cautious colleague was followed by free arterial hemorrhage. Ligature of the carotid became necessary and the patient apparently recovered. Five weeks later, in consequence of a journey and the use of spirits, secondary hemorrhage occurred and death resulted. There was no autopsy. The case was supposed by Duke to be one of false aneurism, consequent upon the blow to the head. The editor of the *Lancet*, however, in commenting upon the case, thought it rather a case of abscess caused by the blow, with subsequent communication with the carotid by erosion.

The case narrated by Murphy [4] did not occur in his own practice, but was simply known to him by hearsay, he having been in the neighborhood at the time. The story was as follows: The celebrated Irish surgeon, Cu-

[1] Anatomy, Descriptive and Surgical, p. 464.
[2] Elements of Anatomy, 8th ed., vol i., p. 374.
[3] The Anatomy of the Human Body, p. 526.
[4] Elementary Treatise on Anatomy, 2d ed., p. 483.
[5] Traité d'Anatomie Topographique, p. 353.
[6] Archives of Pharyngology, 1880, vol. i., No. 4, p. 330.
[7] Wiener Med. Jahrbücher, 1887, vol. vi., p. 309.

[1] Bul. de Soc. de Chir. de Paris, vol. x., p. 83.
[2] Boston Medical and Surgical Journal, 1890, vol. cxxiii., p. 6.
[3] Lancet, 1848, vol. i., p. 233.
[4] Albany Medical Annals, 1888, vol. ix., p. 78.

sack, of Dublin, was shooting with friends on the bogs of Tipperary. A woman suffering from tonsillar abscess was brought to him. He plunged his lancet into the tonsil and she died of hemorrhage in five minutes. There was no autopsy, as the surgeon was obliged to run for his life. It was thought at the time (fifty years ago) that the internal carotid artery had been wounded. In the light of our present knowledge it is more probable that the hemorrhage was due to previous ulceration of the carotid or was from the tonsillar artery, as in the following case of Stanley.

Stanley's[1] case is very instructive, the clinical history being supplemented by an autopsy. The patient, a man, twenty-four years of age, entered St. Bartholomew's Hospital, bleeding slightly from the left tonsil. The tonsil was the seat of an abscess which had been punctured by a surgeon in attendance outside the hospital. The hemorrhage recurred from time to time during the next three days, then became profuse, necessitating the ligature of the common carotid artery. The patient did well for eight weeks, then died suddenly from acute softening of the brain. It had been supposed that the internal carotid artery had been wounded, but the autopsy revealed a wound of the tonsillar artery and not of the carotid. Had a correct diagnosis of the condition been made in this case, the hemorrhage might have been checked by pressure over the tonsil, or, at all events, by ligature of the external carotid instead of the much more serious operation that was resorted to.

The above cases comprise all those I have been able to find recorded in which excessive hemorrhage has followed incision of an abscess in or about the tonsil. And in no one of them was it proved that the internal carotid artery was wounded by the knife of the surgeon. But there is another danger to be considered in operating on a phlegmon of the fauces, which has been alluded to in the histories of the cases of Duke and Murphy. A number of instances have been reported of fatal hemorrhage in quinsy, in which autopsy showed an eroded or ruptured artery, generally the internal carotid. Both Bosworth[2] and Chiari[3] mention the occurrence of this accident, but neither one connects it with the operative interference of the attending surgeon. And yet it is the evacuation of the abscess into the pharynx, whether spontaneously or by incision, that causes the rupture of the weakened walls of the artery, or allows free escape of the blood already outside of the vessel, but pent up in the pharyngo-maxillary space.

It has long been held by surgeons that the walls of arteries are proof against the destructive action of pus, so that even prolonged contact with it does not cause perforation of the vessel, unless there be local mechanical irritation, as from a drainage-tube or a bony sequestrum. When Liston[4] reported his celebrated case of spontaneous perforation of the common carotid artery fifty years ago, the London Medical and Surgical Society refused to incorporate it in their Transactions, and he was obliged to publish it at his own expense. Since that time, however, other cases, equally striking, have been recorded, and it can no longer be doubted that spontaneous ulceration of arteries does occur simply from the corrosive action of pus.

Monod,[5] in an interesting study of this question, made a collection of eighty-eight cases of erosion of arteries, including six in which the carotid was the vessel involved as a complication of quinsy. Vergely[6] adds ten cases of perforation of the carotid to Monod's list, one of the cases being from his own practice. Four of Vergely's cases are not strictly instances of acute suppuration in the tonsillar region, hence I have excluded them. I have, however, found eight additional cases[7] in the literature of the subject, making a total of twenty in all. All of these were cases of acute faucial phlegmon. The only doubtful one in the series is that of Duke, in which the long duration of the symptoms and the history of trauma complicate the question somewhat.

It is not necessary to give all these cases in detail, as they resemble each other very closely. In 18 the opening was spontaneous, occurring in 3 cases on the third day of the disease, in 4 on the eighth, and in 1 as late as the twelfth day. The 2 cases, those of Duke and Murphy, in which the hemorrhage followed upon operative interference, have already been given above. The common carotid artery was ligated in 7 cases, 4 of which recovered, the other 3 dying of secondary hemorrhage or of cerebral softening. Of the 13 patients in whom the carotid was not tied, all died but one. He was apparently saved by syncope, though the hemorrhage was supposed to have come from the internal carotid artery. Autopsies were obtained in 8 of the 20 cases, showing perforation of the internal carotid artery in 5. The source of the hemorrhage proved to be the internal maxillary in one case, a branch of the external carotid in one case, and the tonsillar artery in one case.

In the fatal cases without autopsy, and in the cases which recovered, the hemorrhage was attributed to the internal carotid in all but one. In that case the ascending pharyngeal artery was thought to be the vessel involved, but upon what grounds does not appear in the history. It may be well to give brief details of two of the most striking cases in which the diagnosis was verified by autopsy.

The first case is that of a man, forty-four years of age, of previous good health, whose symptoms were those of an ordinary acute sore throat. Müller,[1] who reports the case, first saw the patient on the seventh day of his illness. There was then great swelling in the region of the left tonsil. There was no fever, and but little pain, except on swallowing. The patient had expectorated a little blood mingled with pus. The treatment consisted simply of cataplasms and cold drinks. The hemorrhage increased in amount and the patient died on the following day. On autopsy an abscess cavity was found in the left tonsil, and at the bottom of the deep cavity, filled with clotted blood, was the internal maxillary artery, its walls thinned and ulcerated. The carotid and other vessels were normal. It would seem that local pressure, had it been employed, might have checked the hemorrhage in this case.

The second case is that reported by Vergely[2] in 1886. A man, thirty-four years of age, was taken sick on July 26th, and entered the hospital on the 30th. The pharynx, palate, and faucial pillars were intensely red. On the left side there was swelling of the soft palate and anterior pillar, and projection of the tonsil. There was great resistance everywhere to the finger, no fluctuating point could be felt, nor any pulsation. The pain and swelling extended from the back of the throat to the angle of the jaw, and later to the mastoid region and below the hyoid. The patient was pale and prostrated. Surgical treatment was deferred for the development of fluctuation. On July 31st the symptoms were worse, but there were still no signs of pointing of pus. On August 1st the condition was the same. The tonsil and adjacent parts were of a dark red color. Vergely was about to puncture the tonsil when the patient showed him a little expectoration of mingled pus and blood. The operation was then again deferred to the next day, but in the afternoon the patient died with a sudden profuse hemorrhage. On autopsy no suppuration was found in the tonsil or pillars, but behind, in a little retro tonsillar pocket, were some large black clots and bits of

[1] Lancet, 1859, vol. ii., p. 509, and 1860, vol. i., p. 35.
[2] Loc. cit. [3] Loc. cit.
[4] On a Variety of False Aneurism, 8vo, pp. 39. J. Palmer, London.
[5] Bul. et Mém. de Soc. de Chir. de Paris, 1882, viii., p. 666.
[6] Jour. de Méd. de Bordeaux, 1886, Nos. 49, 50, and 54.
[7] These eight cases are reported by the following observers: Norton: The Throat and Larynx, London, 1875, p. 12. Müller: Bul. gén. de Thér., 1885, vol. xlviii., p. 517. Weinlechner: Wiener Med. Blätter, 1885, vol. viii., p. 1623. Moizard: Jour. de Méd. et de Chir. prat., 1886, vol. lviii., p. 347. Postemski: Gaz. de Med. di Roma, 1887, Feb. 15. J. N Hall: Boston Medical and Surgical Journal, 1887, vol. cxvii., p. 604. Murphy: Loc. cit. Dunn: Univ. Med. Mag., 1890 and 1891, vol. iii., p. 455.

[1] Loc. cit. [2] Loc. cit.

necrotic cellular tissue. The internal carotid artery was cut in two about two centimetres above its origin. The upper end of the vessel was not found.

In this case, as in two others of our series, the operation had been deferred for a day or a few hours and the surgeon thus escaped the charge of having precipitated the hemorrhage. But, on the other hand, had the incision been made early, without waiting for signs of fluctuation, the ulceration of the artery might have been prevented and the life of the patient saved.

In seeking an explanation of the spontaneous rupture of the carotid artery in phlegmonous inflammation of the throat, it has been suggested that there must be present some general constitutional dyscrasia, or perhaps an impaired state of the walls of the vessel, due to previous attacks of inflammation in its neighborhood. In only four of our cases was there any such cause for the accident. Two patients were suffering from scarlet fever when the throat affection began, and a third was said to be subject to abscess of the tonsil. In Duke's case the blow on the head was undoubtedly a most important etiological factor.

Vergely[1] believes that the vicinity of the air passages is the great local exciting cause of the accident. Microorganisms and foul gases are constantly inspired and expired and may easily give a septic character to the pus in the neighborhood. According to Verneuil,[2] the outer arterial coat becomes thickened in an abcess cavity, if neither fever nor septicæmia occurs. But if these complications arise, the protecting cover disappears and the artery is denuded. In angina the pus and gases confined in the pharyngo-maxillary space, kill the arterial wall before compensatory hypertrophy has time to take place. Probably the septic character of the pus combined with pressure are the important agents in eroding the artery. Hence the supreme importance of relieving the tension of the parts even if suppuration has not yet taken place. Bosworth[3] tells us that we may expect the formation of pus by the end of the second or on the third day. In protracted cases, lasting ten days or two weeks, suppuration is not delayed, but the abscess is probably deeply seated in dense tissue and approaches the surface slowly.

I have already said that the hemorrhage occurred in three of our cases on the third day, so that the accident could hardly have been anticipated. It should be noted that in two of these cases scarlet fever had been present for a week or more, which may account for the rapid yielding of the arterial walls.

It is rather remarkable that the great majority of the patients were men. The sex is noted in sixteen cases, and of these twelve were male, one was female, and three were very young children. This preponderance of the male sex naturally suggests syphilis as an etiological factor, but this disease is not mentioned by any observer.

Conclusions.—1. In quinsy, the inflammatory process is usually situated without, and not within, the tonsil. 2. If pus forms it should be evacuated at the earliest possible moment. 3. Unless there are signs of pointing elsewhere, the incision should be made through the soft palate directly backward. 4. If the tension of the parts is very great, the incision is indicated, even though pus has not formed. 5. If ordinary surgical care is exercised, there is no danger of wounding the internal carotid artery. 6. In cases of deep-seated inflammation, in which the pus comes to the surface slowly, erosion of the arteries in the neighborhood may take place. In such cases, therefore, we must be ready to deal with arterial hemorrhage at the moment the abscess discharges into the pharynx.

Senile Vesical Irritation is often promptly relieved by a ten grain dose of phenacetin at bedtime.—GREEN.

[1] Loc. cit.
[2] Bul. de Soc. de Chir., 1888, p. 740.
[3] Loc. cit., p. 116.

"MODIFIED" MILK—BY PRESCRIPTION—MILK LABORATORIES, ETC.[1]

BY W. P. NORTHRUP, M.D.,
NEW YORK.

THIS meeting is in the interests of fresh and clean milk for infants and invalids. Reports say our present milk supply is a mixture twenty-four and thirty-six hours old. The question is, can fresh and uncontaminated milk be obtained; how, and where, may it be obtained? Lastly, concerning an improved form of milk feeding for infants.

The topic which has been assigned to me is, "Modified Milk by Prescription—Laboratories," etc. As there are but two all-around illustrations of my topic in the world, and but one in New York, I can best compass the ground by speaking of this plant, and what it seems to be able to do for us toward meeting our demands. A milk laboratory must control its primal milk supply. I shall, therefore, bring this paper into harmony with the intent of the meeting by beginning with the dairy. Laboratory, prescription writing, and general indications will follow. I may say briefly, for those not familiar with the work of this Section, that we are speaking of a milk laboratory recently started in New York, a duplicate of that in Boston. Its function is, having taken fresh cow's milk, to change its relative proportions of fat, sugar, and albuminoids to the relative proportions of the same found in good average breast milk. This prepares the way for rational substitute feeding and such other modifications as invalids may require.

Cows.—Animals of quiet temperament are selected from native good grade stock, avoiding the strictly butter breeds—inexpensive, good milkers, such as tend to get fat when undisturbed. These are carefully inspected every month by a veterinary surgeon, and any cow which is not entirely well is thrown out. The stables have water-tight floors, manure is carried to a distance, certain amount of breathing space secured to each animal, etc.

Bedding for the cows is white sand four inches deep. It has been necessary to abandon the use of straw; some bacterial growth occasionally got from it into the milk, causing an unpleasant taste.

It is considered desirable for infant food to use a difficult-creaming milk, *i.e.*, a milk from which the cream rises slowly—the fat globules being small, and remaining long in emulsion.

The feeding of the cows is such as will secure alkaline milk as near as possible. But what is considered more important is to procure the milk of a cow in her normal condition, not over-stimulated. What is to the dairyman's interest in quantity of milk is considered opposed to the interest of milk for infant feeding. On the other hand, a strictly butter cow is not considered a baby's cow. The baby's cow *par excellence* is the cow best calculated to raise her own calf upon her own milk.

Modifying Milk.—On its arrival at the laboratory the milk is less (at present time) than two hours old. Immediately it was drawn, the glass jars into which it was drawn were put into an ice and water mixture, and cooled to 45° F. In its journey to New York it rises two degrees, but still remains below 50° F., a safe limit against rapid bacterial growth—so found by experience. The first act of modifying is to pass the milk through a centrifugal machine and whirl out the cream at the highest and innermost level, the separated milk next, and leave against the peripheral wall any impurities that may have fallen into the milk, such as hair or particles of dust. The speed of the centrifugal cream machine is about 4,400, the lowest that will "separate." A low speed is thought to break the fat-globules less—almost none.

We have, then: 1, cream sixteen per cent. fat (stable percentage); 2, milk free of fat; 3, against the wall any impurities. These are removed at intervals and the machine cleansed.

The freshness and cleanness of milk has come to mean

[1] Read before the Pædiatric Section of Academy of Medicine at a so-called "Milk Meeting," October 12th.

more and more to baby feeders, and will be touched upon by other speakers more fully. Suffice it to say that for "modifying," milk must be fresh.

The following is the history of certain milk coming daily into New York from a farm in Westchester County. At 4.30 A.M. milking begins; at 8.15 the milk is delivered at the milk laboratory, having in that time been in an ice-and-water mixture an hour, and upon the cars 40 minutes. Adams Express Company gets from the farm and transports to the city, as express matter, this fresh milking. It is thus possible to get fresh milk. As to its cleanliness, precautions are taken so that the hands be clean, the udders clean, and the receptacle clean—in this case a specially constructed glass jar is used.

The modifier at the laboratory has, then, for recomposing milk on the breast-milk type, 1, a cream of stable percentage; 2, a clean separated milk without fat; 3, twenty per cent. milk sugar solution; 4, distilled water; 5, lime-water. All of these ingredients are freshly prepared daily.

Nature does not seem to run in routine milks. Breast milks differ in all constituents in a remarkable manner, especially in polite modern society. Yet it may be affirmed from experience that all infants can be satisfied upon a limited range of variations.

Practical Workings of this System.—At the Presbyterian Hospital and outside, I have had under observation something over twenty cases, and as result of this experience I may attempt some suggestions to those for the first time prescribing. Our daily rounds are made at a definite time. The babies who have been sunning in the glass roof-house are returned to their cribs, have taken their feedings, are in their best moods. The daily notes of the nurse, with temperature chart and milk prescription, hang at the foot of the bed. Upon a glass topped table is a collection of diapers labelled with the baby's names. As the rounds progress each case is considered with all the data at hand—child, history, chart, notes of successive days, prescriptions, passages. We have agreed upon certain forms of description so that we may understand each other.

Dr. Rotch has put into our hands a good working basis for recomposing milk on the breast type. In round numbers it may be stated as follows:

Good breast milk in a multitude of cases has been found to vary within certain high and low averages. For instance:

Fat	4 per cent.
Sugar	7 "
Albuminoids	2 "

represents a high order of breast milk, and

Fat	3 per cent.
Sugar	6 "
Albuminoids	1 "

represents a light breast milk, but still a breast milk upon which infants were thriving when the examinations were made.

In round numbers, then, consider cow's milk to be:

Fat	4 per cent.
Sugar	4 "
Albuminoids	4 "

The last ingredient is four times the amount of the weaker breast milk albuminoids. Very well, suppose we say we will divide it by four distilled water; we then have made our albuminoids 1 per cent. as desired, but where is the fat and where the sugar? Each will be 1—1—1, and the lightest good breast milk is 3—6—1. Now, with our prescription blank in hand and a well-equipped laboratory near by, we may go to work in somewhat exact methods, and subsequent experience will enlighten us still further. Whatever we do with it, the milk is a good article to begin with.

When an infant comes into the baby ward of a hospital it is sure to be a pretty poor thing. It comes from poverty; its mother must go out to work; its care and feeding are problematical. Suppose it is four months old, and it has been fed on condensed milk. It is desirable to begin feeding on a good milk of about the same proportions that it has been accustomed to. If condensed milk, the albuminoids will be about one, with the ordinary dilution. This ingredient is fair, but the fats are very low. So let the prescription for our poorly-fed, marasmus baby of four months read:

Fat	2.50 per cent.
Sugar	5 "
Albuminoids	1 "
Lime-water	$\frac{1}{16}$ by bulk.
Heat to	167° F.
Feedings	10
Amounts	℥ iv.

The passages will, no doubt, furnish abundant reasons for modifying the milk later, but at first it is desirable to change the proportions slowly. One baby was brought to the ward because its mother was a patient in the medical ward above. It had been fed on cow's milk diluted. Its passages were curdy, mucus in strings and masses abundant, the whole colored as though a solution of Paris green had been poured over it. Here was a baby but temporarily disturbed, age about six months. Prescription:

Fat	4 per cent.
Sugar	6 "
Albuminoids	1 "
Lime water	$\frac{1}{16}$ by bulk.
Heat to	167° F.

For convenience we often speak of the above prescriptions as 2.50—5—1 and 4—6—1, the fat, sugar, and albuminoids being always enumerated in the same order. Two days later the ingredients were increased to 4—7—2; for the moment you can get a baby on the maximum average of good breast milk it will thrive quickly. The passages will become smooth and homogeneous, yellow will crowd away the green, and at length a yellow pasty stool will show that the infant has come to take his own food.

In modifying milk for a child new-born, the problem is not so complicated. Begin with a light breast milk, 3—6—1, gradually increasing. Here the indications are fairly leading. On the other hand, when an old-fashioned nurse has exploited her time-honored fads, from rum and molasses to good old-fashioned cow's milk, such as the pilgrim fathers and her sire were fed upon as babies, when the baby has begun to have frequent explosive watery passages, Paris green in color, with curds and mucus, then you come to a baby that will tax your judgment to prescribe milk for. How shall you hitch it on to the previous series of feedings? The aim is still to make the junction as smooth as may be. Begin with a light breast type. If six months old, say:

Fat	3 per cent.
Sugar	5 "
Albuminoids	0.45
Feedings	8
Amount	℥ vi.

It is well regularly to order modified milk heated to 167° F. (Pasteurized) after the handling and exposure required.

All babies, as you know, are liable to have dilated stomachs from over-feeding. The quantity of modified milk needed to sustain a baby is probably a trifle more than natural breast milk, but in cases of dilatation the quality may be so modified as to regularly diminish the quantity and restore the viscus. So, in ordering an increased quantity, reflect if it will not be better to increase the quality instead.

To such cases of green mucus and curd passages we have usually given calomel, one-tenth grain triturates every hour till freely purged. Thereafter Squibb's bismuth subnitrate, ten grains every two hours, or oftener. We use no form of opium.

As to Weaning.—Then again, it is desirable to try and ascertain what the quality of the breast milk is and order the substitute feeding to correspond. Remember that you

are to modify from 4—7—2, the average high-grade breast-milk, to 4—4—4, the cow's milk. Start with 4—7—2, two days later drop the sugars one-half per cent. and raise the albuminoids one-half, or 4—6.50—2.50. Three days later make the proportions 4—6—3 and have two of the feedings contain one-half oatmeal jelly, or other cereal preparation. So continue, dropping the sugar per cent. and raising the albuminoids, so that in ten days, without the baby's stomach being surprised, it will come to take full cow's milk, bread and milk and is weaned. Breast milk is very flat to taste. Babies that once get any other food prefer it to the breast milk. They like the cane-sugar sweet.

As to my results, my answer is the number of cases is too small thus far. I have seen two wretched marasmus babies restored to good vitality by this feeding. They were emaciated, rickety, big-bellied, greedily filling themselves with any fluid food, and having numerous watery, explosive green passages. It was nearly impossible to keep them warm, they passed urine in large quantities, and were always wet. These two seem the best triumphs.

An adult patient in a private hospital room had not been able to keep on his stomach any food for ten days before coming to the hospital. A little iced champagne was his sole nourishment, so he said. He was put upon a full cow's milk which had been passed through the separator. His feeding was a fresh milk to begin with, a clean milk (its impurities having been left in the machine), and upon milk in divided quantities and regularly administered. In one week he took beefsteak, and is now walking daily in the roof promenade and sleeping the entire night.

I have known the insipid taste of modified milk to interfere with the thorough trial of feeding. If a child has been fed on a sweetened condensed milk it does not prefer to take a tasteless article. If the mother will not be firm and starve it to the new food, there is but little hope of success.

Finally, it is possible now to obtain in New York a fresh milk and a clean milk.

As the digestive capabilities of infants differ, no routine mixture can prove successful, and a variety in percentages of the constituents of milk must be employed to compass perfect nutrition.

Among the reports of progress in medicine, it may be asserted that in the modifying of milk by exact methods a right step has been taken.

57 East Seventy-ninth Street.

LESIONS OF THE SPINAL CORD WITH AND WITHOUT FRACTURE—AN EXPERIMENTAL AND CLINICAL STUDY.[1]

By THOMAS H. MANLEY, M.D.,

NEW YORK.

In these notes brief reference will be made to cervical traumatisms only of the spinal cord and column. This list embraces no experimental cases, and little is attempted in this synopsis except to very briefly give a few of the more dominant clinical and pathological features of those injuries in which the momentum of force is borne by the neck chiefly, with resultant intrinsic or extrinsic lesions of the spine, as elsewhere [2] the subject has been set forth more fully and systematically.

Case I. *Fracture of Posterior Cervical Arch of Fourth Cervical Vertebra.*—Fig. 1 is a photograph of the posterior aspect of the apophyseal arch of the fourth cervical vertebra. The arch was fractured through the spinous process and through the transverse process on each side. Patient was a sailor, who fell from a mast, about twenty feet, striking on the back of his neck. Immediate paralysis. Laminectomy on the day after admission, when fragments were removed; great hemorrhage during operation. No mitigation of paralysis followed, but pain became intensified. Excessive secondary hemorrhage on third day, which was controlled with difficulty. Death on the fifth day, from exhaustion and consecutive meningitis.

This case was one of unusual interest, inasmuch as it demonstrated that there may be immediate and extensive destruction of the cord without displacement of the fragments being discovered on operation, as there was none here; and besides it was an instance which proved the

Fig. 1.

utter futility of section, even when symptoms of medullary compression are unequivocal.

The explanation of this lies in the *modus operandi* of injury. The cord is evidently crushed through by the dissundered fragments, which are driven in on the vertebral bodies; but, by their own resiliency and their ligamentous attachments they are immediately retracted and spring into place. Fig. 2 exhibits the interior aspect of this broad fractured bone plaque. After the removal of this bone there was left a large, open hiatus, at the bottom of which the nude dura mater appeared, without any appearance of laceration. Now, in order to

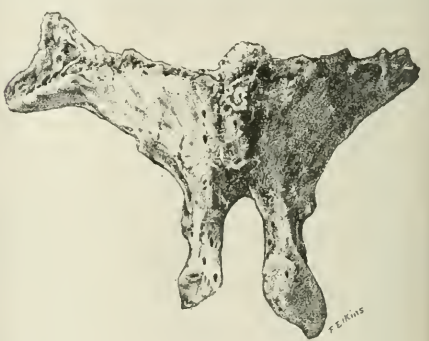

Fig. 2.

provide for the support supplied by this large loss of bone, the head was placed in a cuirass of gypsum.

Herein lies one of the great difficulties in laminectomies in this situation after the bone is removed; as it is never reproduced in the osseous chain, the power to support and balance the head is lost, and henceforth some sort of an apparatus must be always worn.

Case II. *Fracture through the Left Lamina of the Fifth Cervical (Diagrammatic)* (Fig. 3).—Patient, a man aged forty, while intoxicated fell into a bulkhead. Paraplegic on admission into Harlem Hospital; movable spinous process of the fifth cervical. Had great pain in the neck, which was rigidly locked by muscular spasm. Refused operative measures. Sudden rise of

[1] Abstract of an essay read at Omaha City, Neb., May 29, 1893, with new cases added since, all cervical.

[2] Transactions of National Association of Railway Surgeons, 1893. Railway Age Publishing Co., Chicago, Ill.

temperature on sixth day, with muscular twitching in the muscles of the face. Died of cerebro-spinal meningitis on the seventh day, being highly delirious before the end came.

At autopsy, which was hurriedly made, it was dis-

Fig. 3.

covered that there was fracture through the left lamina, with displacement to the right, and free hemorrhage into the spinal canal, with a large extravasate into the adjacent muscular tissues of the neck. As an autopsy was only permitted under protest, we did not venture to remove, for inspection and the camera, the entire cervical segment. Cavities not opened.

Case III. *Multiple Fracture of the Fourth and Fifth Cervical Vertebræ.*—Fig. 4 is an illustration of a speci-

Fig. 4.

men which was removed by me with considerable difficulty on autopsy. The patient from whom it was taken was mortally injured by a fall from the Elevated Railroad structure, in this city, on June 14, 1893. He fell about twenty-five feet headlong, striking on the back of his neck and shoulders. He was immediately paralyzed in parts innervated by the spinal nerves below the cervical plexus.

Dr. Matthew D. Field, the chief surgeon for the Manhattan Elevated Railway Company, saw the case once with me in my service. The question of operation, a laminectomy, had been raised. He survived two days in a painless state, and died of a progressive asphyxia, the temperature mounting to 105° F. just before death. At *post-mortem* examination, on section through the posterior arches, no fracture could be found; but there was an enormous hemorrhage into the spinal canal and all the overlying soft parts. It was only when the vertebral segment was detached at the occiput, lifted out and completely stripped of all its muscular and ligament-

Fig. 5.

ous attachments anteriorly, that the extensive fracture had been discovered. The left vertebral artery was found torn in two at the junction of the fifth and sixth vertebræ.

This case also demonstrates the futility of operations in many of these cervical traumatisms; besides, it impresses the importance of always resecting completely the damaged segment of the spine entire, in all fatal spinal injuries in which an autopsy is permitted.

Case IV. *Fracture through Posterior Arch (the Left Lamina) of the Fourth Cervical Vertebra, with Rotation*

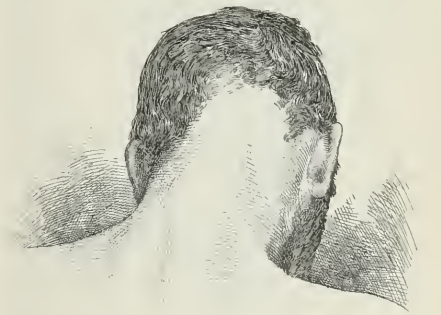

Fig. 6.

of Fragment Outward—Recovery, with Marked Deformity—No Paralysis.—Fig. 5 is from a patient, twenty-six years of age, who sustained a fracture through the posterior arch of the fourth cervical. This photograph was taken in the latter part of July, 1893, four weeks after injury, when the head and neck were in cuirass adjustment of gypsum.

On June 26th he was injured by the rebound of a "sweep" on the windlass of a derrick. He was struck with such force on the back of the neck that he was knocked down on his face, and lay for some minutes in

an unconscious state. Was treated by rest in bed with the head well braced. A distinct fracture of the posterior arch, with marked mobility and lateral displacement, was detected on admission. There was no paralysis at any time, but for a while he quite lost control over the head, which could be moved only when lifted.

After six weeks spontaneous readjustment with osseous reposition had so far advanced as to permit the removal of

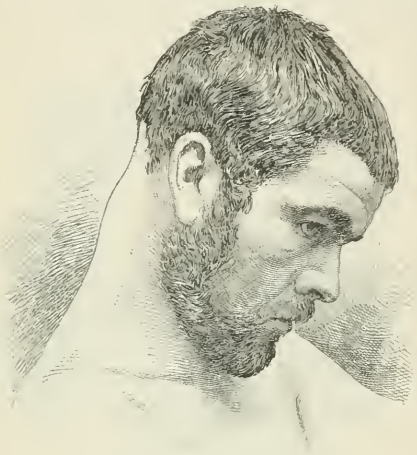

Fig. 7.

the plaster cast, which had been applied ten days after injury

Now (September 1, 1893), as is seen in Fig. 6, from a posterior view, the head inclines strongly to the right, and the cervical arching to the right side is unmistakable. It is quite impossible for him to raise the head without drawing the entire thorax backward.

The above cut (Fig. 7) indicates the present displaced position of the twisted posterior arch. As there is now a distinct hollow felt under the finger in the median line, posteriorly, it is clear that the spinous process is displaced outward, and in further proof of this the spinous tubercle can be felt quite distinct in its new situation.

Fig. 8.

This case is a typical one of fracture through the posterior plane of the spinal column, with distinct and permanent deformity, yet not a trace of paralysis. It is essentially a "broken neck," and it tends to support a conviction which I have long held, viz., that a fracture of the spine is not by any means incompatible with the full functional integrity of the medulla spinalis. This, like nearly all apophyseal fractures, resulted from direct violence. The large mass of callus thrown out plainly indicates the active osteogenetic properties resident in the osseous roots of the vertebral bodies, and that union here is as prompt and effective as in any other bone in the body. At the present time he suffers from torticollis, dependent on the displaced bone. This condition must remain.

It is hard to conceive here what good could have resulted from an operation. Nay, on the contrary, much harm would have followed through mutilation of the parts, sacrifice of bone, and exposure of the cord.

Fig. 9.

Fig. 8 is a schematic view of the nude bone, indicating the seat and extent of fracture. It is seen that there is a fracture with complete detachment of the posterior left lamina; that the canal is exposed and the fragment is drawn far over to the right side, in which situation it now is fixed, and by its pressure from beneath causes a hypertrophy of the integument; besides, there is a painful neuralgia through compression of the nerves. It is clearly apparent that the practical loss of the posterior arch as a means of support must occasion a weakness in the segment of the vertebral column, and leave a permanent "wry neck," or require a prothetic adjustment to maintain the head in an upright position.

Fig. 10.

Case V.—*Double Fracture of Posterior Arch of Fourth Cervical Vertebra.*— Fig. 9 is a diagram of a spinal injury. This resulted from a fall of twenty feet, the patient, a young man, striking on his neck and back of his head. The case ended mortally on the seventh day. As is seen in the cut there was no displacement found on autopsy; but without doubt the fragments had been driven in on the cord, for it was reduced to a pulp underneath.

There was a large, bloody extravasate into the spinal canal, with evidences of advanced inflammatory changes in the meninges. This is another example yet of the uselessness of operation in many of those fractures which are limited to the cervical segment of the spine.

Case VI.—Fig. 10, with a few notes on the case, I am permitted to report by the kindness of Dr. J. W. Wright, of Bridgeport, Conn., under whose care he was. The patient, a young man, aged nineteen, was injured on January 19, 1880, by a fall from a trapeze horizontal bar. He fell, striking on the back of his head, a distance of about seven feet. He was instantly paralyzed from the shoulders down, though consciousness was in no way affected. There were no external marks of violence. No special line of treatment for a time was tried, as it was thought recovery would be impossible. But he gradually recovered sufficiently to walk, with the aid of crutches and a support, one year after the injury. However, he always remained an invalid, though living eleven years, when he died of a bladder affection.

On inspection of the cervical vertebræ it was found that the fifth and sixth had been fractured through their arches and bodies; that they had been partly telescoped into each other; a sort of impacted fracture had occurred.

The precise point of medullary compression had been just

Fig. 11.

opposite the sixth vertebra (Fig. 11). Dr. G. M. Hammond, of New York, made a microscopical section of the cord. At the point of compression it measured one eighth of an inch in its antero-posterior diameter, and three-eighths of an inch transversely. The cord had been in strong alcohol and Muller's fluid three months when these measurements were made. As the crushing was so low down in this case, we can understand why it was that there were no symptoms of asphyxia at any time.

It was maintained by some of the speakers at a meeting of the Neurological Section of the New York Academy of Medicine, before which this case was first reported, that an operation might have saved the patient by relieving the cord-pressure. But how in the world an impaction and telescoping of the bodies could be dealt with safely in this situation it would be interesting to know. Indeed, surgical intervention in the presence of such an extensive disorganization of tissue must have been promptly mortal in its consequences. As a consecutive measure after ossification was complete, it might have effected some relief.

Fracture of Fifth Cervical Vertebra.—Mr. D. Livingston Davies (M.R.C.S.E.), of Nottingham (Borough Asylum), in the issue of the London *Lancet* for June 22, 1893, submits a remarkably interesting case of cervical fracture of the spinal column in a healthy male lunatic, of twenty-nine years of age. It appears that on the 21st of January, in the morning, he was suddenly seized with a suicidal tendency, and pushed his head through a square of thick glass; however, without inflicting much damage to his head. The same night he was under the continuous supervision of an attendant. Shortly after lying down he jumped up, and with great violence jammed his head against the wall of his compartment. After his second plunge he fell helplessly to the floor. He was temporarily stunned by the fall, but in a few moments fully recovered consciousness, complained of pain in his neck, and said that he thought he was paralyzed. No deformity could be detected. Motor power and sensation were wholly lost for three inches above the nipple line; respiration was wholly diaphragmatic; knee-jerk was absent. Twelve hours after the injury his temperature suddenly went up to 102° F. January 22d, temperature 103° F. in the morning; at 1 P.M. it was 104° F.; at 5 P.M. temperature 104.6° F.; at 7 P.M. temperature in right axilla was 104.8° F., in the left 103° F.; at 11 P.M. temperature was 104.2° F. January 23d, 1 A.M., temperature was 105.2° F.; at 3 A.M. 105.3° F. Patient was conscious until an hour before his death, when he became delirious, and died at 4.15 A.M. Death took place apparently by asphyxia. Temperature ten minutes and thirty minutes after death was 106.6° and 106.2°, 105.8°, F.

On *post mortem* examination, twenty-nine hours after death, no fracture of the skull was detected, nor evidence of trauma of the brain. A T-shaped fracture of the body of the fifth cervical vertebra was discovered, splitting the body into three parts with a V-shaped fracture through the posterior lamina, near the junction with the transverse processes.

No displacement of the fragments was noticeable.[1] On opening the vertebral canal, the *meninges bulged* out, and on incising these a large amount of dark blood escaped, being sufficient in amount to cause some compression of the cord. As it was decided to preserve the body specimen the cord was not examined.

Remarking on this spinal injury the author says "that it is interesting to note, 1, the manner in which the vertebra was fractured, by butting the head, without injuring it, in a room six by ten feet; 2, the short period of unconsciousness; 3, total absence of the knee-jerk, with limitation of perspiration to the sensible parts of the body, and difference of thermal state in the axillæ."

The post-mortem showed that no good would have resulted from trephining, the performance of which had been under consideration. I have quoted this short but valuable report, with comments, almost verbatim, and find that it presents so many highly interesting and practical features that it will bear a further analysis and review with advantage.

Etiologically the case is a puzzle; for how a man could fracture the cervical segment of the column without battering in his cranium first, by any sort of butting, is quite incomprehensible, and is utterly incompatible with all laws of physics. It would seem more probable that he must have dove off the bed, head foremost, on to the floor, thereby projecting his whole body against the head and the cervical isthmus.

Clinically the case is a typical one of serious spinal-cord lesion. He was immediately paralyzed. That meant that the cord was mortally crushed; which is always a grave symptom. His temperature shot up suddenly and kept on mounting even after he was dead. That is an invariable phenomenon when acute meningeal inflammation develops after a traumatism of the cord. He died asphyxiated; ascending meningeal inflammation, as soon as it reached the roots of the phrenics and respiratory nerves of Bell, inducing, simultaneously, respiratory inhibition, medullary hyperæmia, and cerebral congestion, with thermal and mental derangement.

Pathologically, though no minute examination of the cord was made, it was specially interesting, for here we

[1] Italics mine.

had a fracture completely smashing through both planes of the column, and yet there was no displacement.

He had free intra-dural hemorrhage. I have always maintained that primary intra-dural hemorrhage never occurs after a traumatism of the column unless there has been a fracture or structural disorganization of other parts.

Therapeutically it supports my position, too, that there are no definite symptoms connected with vertebral fracture; that there rarely is depression of the fragments, and that when there is, the cord is generally irreparably destroyed. I have taken pains to investigate the dime-museum case of "the man with the broken neck," Barney Baldwin. Going there I found a large, heavy, middle-aged man, with his head in a cage, which had a brace attachment. There was no cervical deformity visible. He refused to permit me to carry my hand over the spinous process, or indeed to touch his neck at all. I offered to pay him liberally to call at my office and permit me to make an examination and report a full description of his case to the profession. This he would not do. I have written to physicians in Birmingham, Ala., some of whom have been there all their lives, yet none have any knowledge of him.

To my mind the case is one on a par with the usual dime-museum exhibits. This is all the more evident when we read Baldwin's own story in his book, a copy of which I secured. He says "the accident was caused by an engine becoming unmanageable, which was pushing a train of cars, when I was knocked off the caboose, and was run over by the engine and six cars." It said that Barney had his neck broken, together with his right arm, both legs, and five ribs. His watch was crushed out of sight "into his bowels, and an iron bolt was lost sight of in his collar-bone." The arm was made good by a new silver joint. Besides all this, the fourth, fifth, and sixth cervical vertebræ were smashed, etc. I would not have noticed this piece of imposture as one of extensive cervical fracture of the column, were it not that it has been chronicled by some of our medical journals as "one of the marvels of our time," "Barney Baldwin, the Broken-neck Wonder."

Summary and General Conclusions in Cervical Lesions of the Spinal Column Attended with Fracture.—The general conclusions arrived at after a study of cervical fracture in man and experimental observations on animals justify us in maintaining:

1. Grave injuries of the spinal cord, from injury in the neck, without fracture, are rare.

2. When paralysis immediately follows cervical injury it clearly establishes the fact that the cord has borne serious damage.

3. That fractures which involve the respiratory centres (from the atlas to the fifth) are almost inevitably mortal.

4. Those below this point are sometimes within the range of operative relief when the apophyses alone are involved, and are not so dangerous to life.

5. Fractures through the anterior osseous plane of the vertebral column, the bodies in the cervical and other regions, are not recognizable during life, and are much more common than is generally supposed.

6. The apophyseal type of fracture through the posterior plane is the most easily recognizable, and may be occasionally amenable to surgical measures.

7. Fractures here, as in all other segments of the rachidian structures, are characterized by a tendency to resist displacement, and when this does occur, to spontaneous reposition.

8. The cervical segment of the column may sustain permanent injury without the association of medullary lesions of any description which entail paralysis.

The Chesapeake and Ohio Railroad Company are erecting a hospital at Clifton Forge, Va., where its disabled employees will be sent for treatment. Twenty-five thousand dollars have been appropriated for this purpose.

Progress of Medical Science.

Dieulafoy on the Early Diagnosis of Bright's Disease.—For years past M. Dieulafoy has, both at the bedside and in his much-read work on Medicine, sought to emphasize the importance of divers symptoms which, though often apparently trivial, are none the less significant of the existence of that very common malady Bright's disease. To these symptoms he has given the name of *petite urémie*, or Brightism. He regards albuminuria as an unreliable symptom of Bright's disease. (*The Lancet*). In sixty cases under treatment in his wards during recent years albuminuria was absent in one-fourth. That nephritis really existed was proved in several instances post mortem. In another series of cases albumin disappeared in spite of the continued evolution of the disease. Some patients are albuminuric without being Brightic, to adopt the French expression. Among the symptoms of Brightism M. Dieulafoy mentions auditory troubles. These consist in whistling or more sonorous noises in one or both ears, the causes being multiple (œdema, paralysis of the acoustic nerve, pressure variations). The frequency of these noises may be judged of when it is stated that they were present in thirty-four out of sixty cases. Menière's vertigo was frequently complained of (thirteen times in sixty). Asphyxia of the extremities, first described by Maurice Raynaud, is one of the commonest symptoms of Bright's disease. This begins as formication of the hands or fingers, and then the tips of the latter become bloodless, pale, and numb This dead-finger symptom is found in all forms and in all the stages of Bright's disease. Itching, without possessing the same importance as the above, is sometimes very severe. Frequency of micturition is well known as a symptom of the disease. To this symptom M. Dieulafoy has given the name of pollakiuria to distinguish it from polyuria, many Brightics, in fact, micturating ten or twelve times a day without voiding a quantity above the normal. Cryæsthesia (κρυος = cold), or sensitiveness to cold, is a minor symptom of nephritis. It is generally confined to the lower extremities. Cramps, especially noctural, in the calves of the legs are sometimes severe enough to wake the patient. Epistaxis, chiefly occurring in the morning, is often significant. Electriform shocks must also be counted in this category. At the moment of falling asleep or during sleep the patient is aroused by a single violent shock recalling the effects of an electric discharge. The temporal sign is frequent. Here the temporal artery is distended, dilated, and tortuous without being atheromatous. This is of course due to high arterial tension. The foregoing symptoms of Brightism, if associated in any one individual, are, according to M. Dieulafoy, sufficient to warrant the diagnosis of Bright's disease. He is convinced that many people apparently healthy are in reality Brightics, and this conviction would be shared by most practitioners did they inquire into the presence of these symptoms of Brightism. A confirmation of this diagnosis will frequently be found in the good effects of an exclusive milk diet, which causes the disappearance of these seemingly insignificant troubles. M. Dieulafoy has also applied another test—viz., the degree of toxicity of the urine passed by patients affected with Brightism. He finds that this secretion has in such cases lost a portion of its toxic properties.

Erysipelas of the Bladder.—Dr. Frisch reports the following case, in a patient fifty-two years old, whom he had had under observation and treatment in successive attacks of abscess in the prostate for some time. The patient entered the hospital with one of his usual attacks, but after its symptoms had disappeared there remained a fever that could only be accounted for by the presence of pus, albumin, and a few streptococci in the urine, while the prostate and bladder were sensitive to pressure. Upon the third day, after a severe chill, there appeared

upon the left leg a spot the size of an almond, which presented the characteristics of an erysipelatous eruption, and caused the author to conclude that he had to deal with an erysipelas of the vesical mucous membrane, originating in or caused by the abscess of the prostate. This diagnosis was confirmed by the bacteriological investigation of the urine, the streptococci of erysipelas being recognized both in the plate-cultures and by their characteristic growth in the "stick" cultures, and by their reproducing the disease after inoculation. These bacteriological evidences in the urine increased and then disappeared with the course and termination of the disease in the bladder. The cystoscope showed the mucous membrane deeply red in color, and raised in great folds over its entire surface during the height of the disease. The skin eruption was metastatic—probably through the blood-vessels; this was shown by its origin on the lower leg, far from the original seat of the disease, and by its second appearance on the chest, after having passed over the entire posterior surface of the body and apparently subsided. The patient made a good recovery.—*American Journal of the Medical Sciences.*

Extirpation of an Endocranial Sarcoma. — Dr. Nicolaysen has recorded the following case: A man, fifty years of age, had suffered for many years with right-sided headache, vertigo, and nausea. A tumor in the right temporal region had increased until it reached the size of a child's fist, when he was admitted to the hospital. The patient was not very intelligent. The tumor was solid, elastic, immovable, pulsating, and projected like a fungus from a depression of the skull. There were no spasms and no paralysis. The deeper portions of the temporal muscle were infiltrated with tumor masses, and the whole muscle and the fascia were removed. The tumor was yellowish white, of the consistency of coagulated albumin, and was not surrounded by a capsule. It had evidently started from the diploë. It was only slightly adherent to the dura mater, and this membrane was not infiltrated. There was a depression in the surface of the cerebrum, of a depth of $3\frac{1}{2}$ ctm., and $4\frac{1}{2}$ ctm. wide, made by the tumor. The whole mass, together with 1 ctm. of the surrounding bone, was removed, and microscopical examination proved it to be a round-cell sarcoma. The patient appears to be cured. It is surprising that there should be so few symptoms of cerebral compression with so great a depression in the frontal and temporal convolutions.—*Annals of Surgery.*

The Skin Lesions of Syphilis.—In the *American Lancet* Dr. Cautrell divides these skin lesions into—1st, erythematous; 2d, papular; 3d, pustular; 4th, tubercular; 5th, gummatous; 6th, bullous. 1. The erythematous syphiloderm shows itself between the fifth and seventh week after the appearance of the chancre, and lasts for from one to three months. It may be mistaken for lentigo or freckles, exanthemata, medicinal eruptions, tinea circinata, and tinea versicolor, and the pityriasis maculata et circinata of Duhring. Lentigo occupies the parts exposed to the sun. It is yellowish-brown from the first, and never scaly; the pigment is firm. The reverse of these conditions exists in syphilis. The absence of fever and the darker color of the eruption distinguish this form of syphilis from the eruptive fevers. The medicinal eruptions have some fever and gastric disturbance, with an urticarial or œdematous character of the lesions and some itching. In tinea circinata the lesions are not likely to be multiple. In tinea versicolor the lesions are more of a chocolate brown, and not of so extensive distribution. In pityriasis maculata et circinata the lesions are found in rings and maculæ of all sizes. 2. The papular syphiloderm is a small, hard, round, and raised lesion, of a raw-ham color. It is likely to be at one time or another small or large, scaly or moist, or vegetating. Eczema may be distinguished from the moist variety by there being no lymphatic enlargement, sore throat, or falling off of the hair. Psoriasis is scaly from the first. Look for signs of the initial lesion; do not ask the patient. Lichen planus congregates or localizes itself, and is itchy, which syphilis is not. 3. The pustular syphiloderm may develop from one of the other forms, or occur with them, and may be either pointed or flat, whether of the small or the large variety. Pustular eczema, which is likely to resemble this form of the syphiloderm, gives a history of decided crusting at all times, itching, and no bad odor. In syphilis there is decided ulceration, a bad odor, with crusts stratified, and always polymorphism. Syphilodermata, as a rule, are not limited to those regions affected by acne, as the face, chest, and back. 4. The tubercular syphiloderm shows lesions that vary from the size of a split-pea to that of a hazel-nut; they are smooth, glistening, round, or pointed, of an intense copper color, and may grow singly or grouped, sometimes in circles or crescents, the so-called serpiginous or snake-like character; soon ulcerate and crust; are indolent, and appear late in the disease, the latter part of the second year; are often delayed as long as twenty or twenty-five years. In this variety other lesions are not found. Lupus vulgaris, which is likely to resemble this variety, lacks the history of contamination, does not begin late in life, does not ulcerate with punched-out appearance, and does not progress rapidly. Epithelioma, which resembles the ulcerating form, has one point of ulceration; is slow in forming; secretion scanty, bloody, and viscid; some infiltration; lancinating pains; ulceration most marked in centre. 5. The gummatous syphiloderm consists in a gummy deposit in the skin. At first freely movable under the finger. Its progress is slow; when the skin becomes affected it is not movable; found mainly on scalp and forehead; almost always ends in ulceration; should not be incised. It may be distinguished from furuncle and abscess by its slow, painless progress. 6. The bullous syphiloderm is a late lesion, and seldom seen. Pemphigus and dermatitis herpetiformis, which are likely to resemble it, present lesions containing serum and not pus, and the crusts do not show the horny or rupial character of syphilis.

Treatment of Chorea.—In a recent lecture, delivered at Charing Cross Hospital, Dr. John Abercrombie makes the following suggestions concerning the treatment of chorea in children: Unless the attack is very mild absolute rest of mind and body is essential. Lessons must be given up and the child kept at home lying down. Most severe attacks demand complete rest in a bed with padded sides. In very severe cases the child should be slung as in a hammock. Only in the lightest attacks should the patient feed himself. When mastication is difficult, minced meat, strong beef-tea, milk puddings, milk, and cocoa should form the chief articles of diet. Sleep is of great importance. If necessary, chloral, morphine, bromides, may be administered. Iron and arsenic are the best drugs, though drug treatment is of less importance than general management. Rheumatic manifestations or heart complications should be treated on general principles. In chronic cases douches to the spine, shampooing, massage, and gymnastics, are of value.

Spinal Paralysis of Syphilitic Origin.—This affection is described by Erb under the title of syphilitic spinal paralysis, and by Charcot as syphilitic transverse myelitis. Kowalewsky has recently reviewed its clinical features and differential diagnosis. It is of slow development, occurring chiefly in men between the ages of thirty and forty-five, and bladder disturbance is one of the first symptoms. Many of the conditions present resemble those of spastic paraplegia. But spasticity of gait, when it exists, is not so marked as in lateral sclerosis. Muscular rigidity and increase of deep reflexes are less marked than in spastic paraplegia. There is always increase of muscular irritability, exaggeration of response to heat and cold, and tactile and analgesic response are normal or shortened. An opposite effect is produced in locomotor ataxia.

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IDIOTS AND OTHER BACKWARD CHILDREN.

IN 1801, a wild boy was found in the forests of Aveyron, in France, and brought to Itard, the friend and disciple of Condillac. Hoping to find in the instruction of this lad the verification of Condillac's philosophical theories, Itard labored patiently for six years to develop his intellectual faculties by means of sensations. The young savage proved to be an idiot of low grade, and hence unfit for the experiment. But the attempt to instruct him satisfied Itard that it was possible to elevate the mental condition of idiots. The facts he gathered together he communicated to his pupil, the late Edward Seguin, who entered upon the work as a labor of love, and in 1846 published his treatise on the management of idiocy. This treatise placed him forever in the foremost rank of modern psychologists. The work started by him at the Bicêtre, in Paris, has been continued and brought to a higher state of technical perfection by Bourneville. Or, as the fact has been poetically expressed, "Bourneville holds aloft the torch earlier lighted by Seguin."

Itard's pupil consulted nature as to the mode by which the physical powers are cultivated and the mind educated in the infant. So did Frœbel; and out of his axiom, "There is nothing in the mind that was not first in the senses," grew a whole system of scientific sense-training, with gifts, occupations, songs, and movement games. The same idea Kant expresses in a more general way: "All our knowledge begins with experience." Idiocy meant to Seguin prolonged infancy—infancy without grace and charm. The infantile fondness of idiots for bright colors was utilized to teach them distinctions of color and form. Their liking for playthings he turned to good account by instructing them in number, form, and size, through the medium of blocks, cups and balls, and other toys. Words came next, and the meanings of words were taught by pictures. Letters had their place later. The eye, the foot, the hand, were educated by means of steps, dumb-bells, and other gymnastic exercises. The refractory organs of speech were moulded and manipulated until they could utter the desired sounds. After strict familiarity with things came ideas, at first concrete, then abstract as higher consciousness was attained. Though long, this process triumphed. Seguin revolutionized all the foregone conclusions concerning idiocy.

From that time the work has gone on steadily, though slowly, in different parts of the world, in France, America, England, Germany, Denmark, Holland, and Switzerland. In the *Progrès Médical*, June 24, 1893, Bourneville publishes a most interesting record of some of the work done in Paris, at the Bicêtre, where the treatment is at once medical, hygienic, and pedagogic. The patients are first taught to hold themselves erect, then to walk. Their joints are exercised and their limbs are subjected to friction. Baths and the arts of hydrotherapy aid in physical development; and physical culture is advanced by systematized movements, free gymnastics, fencing, and dancing. For the development of speech and correct pronunciation, methods in vogue in deaf and dumb asylums are utilized. Every device is employed to render number and calculation real and intelligible. Exercises in the training of vision are many. Some of these are carried on out of doors in gardens laid out for the purpose. There are gardens of surfaces, of geometric figures, flower gardens, vegetable gardens, orchards, woods, fields of grain, vineyards, etc. Music occupies an important place. There are songs and movement games, together with instruction in vocal and instrumental music. Care is taken to teach the children to distinguish different kinds of sounds. The very first lessons are in the care of the person. Object lessons are given upon the manikin, or upon the child himself, in all the complicated movements required for dressing and undressing, and in the many automatic acts that the normal child learns by imitation. The children at the Bicêtre are taught to wash their faces and hands, to lace their shoes, etc. They learn through doing. Technical training for some trade completes this medico pedagogic system of education. There are seven workshops, where the pupils receive instruction in carpentry, in locksmith work, in printing, tailoring, the making of shoes, baskets, brushes, twine, etc. The results of this method are surprising.

Bourneville classifies idiocy as symptomatic of hydrocephalus, microcephalus, arrested development of convolutions, congenital or pathological malformations of the brain, meningitis or meningo-encephalitis, myxœdema, or cerebral tumors. The paper referred to contains a comparative study of the skulls and photographs of the brains of twenty-two idiotic children, of ages varying from two to seventeen years. Their idiocy was dependent upon different conditions, and their death due to a variety of diseases. They were all typical idiots, and belonged to the same class as the twenty-five patients operated upon by Lannelongue.

The treatment had been that of the system just described, with results encouraging alike to the physician and to the humanitarian. The author calls attention to the fact that many backward children are moral imbeciles. They are unstable, perverse, impulsive, wayward, and disorderly. They reach a certain stage of development. The moral qualities are in abeyance, though the intellectual faculties have fair possibilities. Moral imbeciles possess as much mind as is consistent with a total absence of character.

From close observation and wide experience in the care and treatment of every class of imbeciles, Bourneville arrives at six very definite conclusions, somewhat at variance with theories that have a certain vogue. The surgical treatment of idiocy, he thinks, rests upon a hypothesis which is not confirmed by pathological anatomy. That premature ossification of the cranial sutures

exists in the different forms of idiocy is denied, a partial synostosis being always an exception. Lesions which cause idiocy are generally profound, extensive, varied, and unlikely to be influenced by craniectomy. The diagnosis of premature ossification and thickness of the skull is not possible with our present means of investigation. The reports of most surgeons show that the results of operations are negative, slight, or doubtful. Serious accidents may follow surgical intervention, as paralysis, convulsions, or death. The medico-pedagogic treatment founded by Seguin, and brought to perfection by the introduction of new processes, applied with care and patience and for a sufficiently long time, permits us almost always to obtain decided improvement, and often enables idiotic children to attain some value and social station.

The reason that more is not accomplished for idiots and backward children, lies with the parents themselves. It is very difficult to persuade them that their children are mentally defective. Too often the physician's statement is not believed, and nothing is done in the way of special training. Thus valuable time is lost. Yet idiocy is by no means an uncommon disorder. According to one estimate, said to be very much within the truth, six persons in every thousand are idiots, or of such imperfect development as to be of little or no service to the community. In view of the facts of the case, it is evident that the public has much to learn concerning its duties to idiots and other backward children. As it has been demonstrated that the great majority of the feeble minded are susceptible to physical and mental improvement, the claim is not unjust that all backward children are entitled to special education and training. Ten to twenty per cent. who are received and trained in institutions become bread-winners; thirty to forty per cent. can help themselves in many ways and are but slightly burdensome to their families; and the remainder always need custodial care. From any point of view, from that of selfishness, of humanity, sentiment, religion, or social economics, there seems to be no definite and satisfactory reason why the feeble-minded should not be trained into relative usefulness and become at least partially self-supporting.

CŒLIOTOMY VS. LAPAROTOMY.

We commented some time ago on the sudden adoption of cœliotomy in place of laparotomy by some of the surgeons of this city. While not denying a certain etymological justification to the former term, it seemed to us not altogether unobjectionable for various reasons. Dr. R. P. Harris has been kind enough to send us his original pamphlet, published in 1890, in which he presents with much learning the argument for the change of nomenclature. The argument amounts essentially to this: that *cœlia* means "belly," while *lapara* means "flanks," hence cœlia is the proper word. To this it must be said, however, that *cœlia*, according to Foster, has had in the past four different meanings, viz., the abdomen, the intestines, the fæces, and "any cavity of the body such as the socket of a bone" (Hippocrates).

As we stated before, the word has already been adopted by neuro-anatomists to indicate the cavities of the nervous system. Cœliolymph (Wilder) is the cerebro-spinal fluid, while the root "cele" is in common use in medicine to indicate a cavity.

While laparotomy may not be strictly accurate, therefore, cœliotomy is not inherently much better.

AN ACCIDENTFUL YEAR.

Everyone must have noticed the fact that there has been an unusual and extraordinary number of railroad accidents in this country during the past six months. Collisions, derailments, falling bridges, defective switches, careless trainmen, all these things have combined to make the list of killed and injured tragically large. Taking only a newspaper census, made from two daily papers of this city, one finds a record, according to the *Sun*, of 115 killed and 226 wounded in railroad accidents alone, since May 15th. In addition to this it seems that the accidents from fire, flood, storm, and trolley cars have been also extremely large. The following is the record since May 15th, as tabulated in the paper referred to:

Kind of accident.	Killed.	Injured.	Total.
Falls	71	245	316
Drowning	116	...	116
From trolley cars	44	98	142
Burns, scalds, and explosions	133	92	225
Railroads, to travellers on trains	115	226	341
Disaster, struck by train	55	7	62
Struck by falling objects	15	44	59
Runaways	8	50	58
Run over on street (besides trolley car accidents)	22	105	127
Miscellaneous	538	329	867
Total	1,117	1,196	2,313

This does not include over one thousand lives lost during this period by flood and tornado, nor the two thousand and more who were killed in the frightful cyclone that recently devastated the Gulf coast.

Putting all together, it may safely be estimated that five thousand lives have been lost by violence, and more than twice that number of persons injured in the last six months. A practical evidence of this has been the effect on accident insurance companies. One of the largest of these has recently had to make an assessment on account of the unusual number of accidents and the consequent extra drain on its resources.

It is unfortunate for the professional prophet that the year 1893 was never selected as one of especial woe, for to accidents by flood and field must be added the depressing influence of a panic, and the spectacle of a great country's legislation blocked by the verbigeration of flatulent fanatics. This has been the year when the United States might have been pictured as the Niobe of Nations, with nothing but Chicago to dissipate the tears.

Some of the railroad accidents of the summer are in a measure traceable to the increased traffic caused by the World's Fair and the sudden large movements of wheat occurring at the same time. The result has been that railway officials have been overworked and have got careless. Others of these accidents are distinctly traceable to the non-use or imperfect use of the block system. This system costs the New York Central $40,000 a month, it is said; but that amount is more than saved in the diminished loss of life and in diminished injuries and breakage. Many railroads cannot, or think they cannot, afford to apply this system. Another preventable source

of accident and death is the trolley car. Forty-four deaths and ninety-eight injuries in six months is a shocking total, and quite justifies the application of the term of Juggernaut to the trolley as it now is. It seems incredible that this cannot be prevented, either by a better system of control or the use of proper guards in front of the car.

News of the Week.

Dr. Pozzi, of Paris, on his journey westward, spent a couple of days in Cleveland as the guest of Dr. Dudley P. Allen. During his stay he was given a dinner at the Union Club to meet the Trustees of the Western Reserve Medical College, and the following morning operated before the students and faculty of the school, performing an unusually difficult laparotomy. He demonstrated his method of operation in such cases, sitting between the patient's thighs, using pieces of gauze, folding it together in squares, perhaps a foot in size, and operating through a small incision. The case was one of double salpingitis, due to infection, and was extremely adherent. The removal of the tubes was followed by profuse bleeding, which was held in check by gauze tampons. After the bleeding had been controlled in a degree, a Mickulicz tampon was carried down into the pelvis. I am glad to say the progress of the case has been favorable in every respect. Dr. Pozzi was a very welcome guest, and greatly interested the profession by his methods and by his demonstrated ability as an operator.

The Kansas City Medical College Circular to Students.—We have received a letter addressed to a medical student, signed by the President of the Kansas City Medical College, a part of which will bear quotation: "We hope that you will visit the College at the beginning of the session of 1893–94, September 18, 1893, and become acquainted with officers and members of the faculty and the students. We feel certain that you will be pleased and decide to matriculate with us. In doing so you will find that our requirements for admission are not more exacting than those with which our many students in the last eight years have found it easy to comply, and that we fully appreciate that many applicants are not fresh from school." This is bad on its face, of keeping the standard of admission to a dangerously obliging level. In the East the fashion is the other way.

Wholesale Vaccination.—Within the past few weeks over eleven thousand persons have been vaccinated by the Health Department of this city. No new cases of smallpox have been reported since last Saturday.

Cholera in Berlin.—The Imperial Health Office reports that during the past week there have been seven fresh cases of cholera and four deaths in Tilsit; eight fresh cases and two deaths in Stettin; and three fresh cases in Zerpenschleuse, Prussia. It is believed that the Berlin-Stettin Canal is infected.

Yellow Fever in Brunswick.—Thirty-six new cases have appeared in Brunswick since our last report.

Civil Service Examinations.—Open competitive examinations for the positions of Junior Assistant Physicians and Apothecaries in the State Hospitals, will be held at the office of the Civil Service Commission, Albany, Thursday, November 16, 1893, at 10 A. M. Applicants as Junior Assistant Physicians must be residents of the State of New York, graduates of a legally incorporated medical college, and have had at least one year's actual experience on the staff of a public general hospital. Salary, $800 to $1,500 per annum and board. Applicants as Apothecaries must be residents of the State of New York, at least twenty-one years of age, and must have a license from the State Board of Pharmacy. Salary, $500 to $600 per annum and board. For application blank, address New York Civil Service Commission, Albany, N. Y. Thomas Carmody, Chief Examiner.

Alvarenga Prize of the College of Physicians of Philadelphia.—The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about one hundred and eighty dollars, will be made on July 14, 1894, provided that an essay deemed by the committee of award to be worthy of the prize shall have been offered. Essays intended for competition may be upon any subject in medicine, but cannot have been published, and must be received by the secretary of the college on or before May 1, 1894. Each essay must be sent without signature, but must be plainly marked with a motto, and be accompanied by a sealed envelope having on its outside the motto of the paper, and within it the name and address of the author. It is a condition of competition, that the successful essay or a copy of it shall remain in possession of the college; other essays will be returned upon application within three months after the award.

CHARLES W. DULLES, *Secretary*.

The Death of Dr. Walter Vought.—The Managers of the Vanderbilt Clinic, at their last meeting, adopted the following: Since the last meeting of the Board Dr. Vought, one of the oldest of the clinical assistants in the department of Neurology and Medicine, has fallen a victim to typhoid fever. By his untimely death the Vanderbilt Clinic loses a member of its staff who was conspicuous for his skill and diligence, and the profession a physician of distinguished ability and rare promise. Dr. Vought's work in this institution was characterized by a thoroughness and fidelity which commanded the admiration of his superiors, and stimulated the enthusiasm of his associates. His example will leave a deep impression in the methods and discipline of the Clinic, and serve to perpetuate its best traditions.

The Congress of Norwegian Physicians, which recently met at Christiania, held its sessions on a large steamer which moved from place to place. The physicians were thus furnished with fresh air and change of scene while pursuing their scientific work. The example is worth studying and following. Hereafter, instead of hiring a hall for their midsummer congresses, let them hire a boat.

A Diet for Literary Workers.—The *Hospital* advises literary workers to rise early, take a cup of coffee with toast at half-past six, write for a while, take breakfast at eight, write till noon, take a lunch at one o'clock, smoke a pipe after it, take a cup of black coffee at two, write a couple of hours, take a cup of tea at four, write till half-past six, take dinner at seven, winding it up with a cup

of black coffee, take things easy till quarter of eleven, then take a small cup of cocoa, and be ready for bed at eleven.

We should not like the *Hospital* to lay down a diet for medical workers, if it were of the above character.

Studying Medicine in Order to be a Novelist.—Dr. Arabella Kenealy, the author of "Dr. Janet of Harley Street," a novel which has reached a fourth edition, is said to have entered the medical profession with the express intention of bringing its resources to bear upon fiction. Having showed considerable literary talent at a very early age, the burying herself in medical student life for the lengthy period over which the attaining a degree extends was regarded by her acquaintances as a waste of time. But Miss Kenealy is convinced that the time could not have possibly been better spent; that for the study of human nature and a thorough realization of some of its most suggestive phases, the life of a doctor is pre-eminently fitted.—London Cor. *American Practitioner.*

Marriage of Dr. Charles O. Rice.—On Wednesday morning, October 25th, Dr. Charles O. Rice, of 400 West Fifty-seventh Street, was married by the Rev. Father John Hughes, at the church of St. Paul the Apostle, to Miss May Gordon. The wedding ceremonies were on a grand scale, and the church services were largely attended by the many warm friends of the doctor and his beautiful young bride, who was born on the West side, and is the daughter of Mr. Edward Gordon, a well-known and highly respected citizen.

Mütter Lectures.—The Mütter Lectures this year will be given by De Forest Willard, M.D., at the Hall of the College of Physicians in Philadelphia, on Tuesday evenings, from October 17th to December 19th. The subject is "The Surgical Pathology and Surgery of the Spinal Cord, the Vertebræ, and Peripheral Nerves."

A Doctor Sues an Earl and Wins.—It was rather plucky of Mr. Lennox Browne, says the *Hospital Gazette*, to sue the Earl of Annesley in the Bloomsbury County Court, to recover the balance of his fee for a small, but delicate, operation he performed on his lordship's son, Lord Glerawley. It appears that the young nobleman suffered from stammering, and Mr. Browne, who was consulted, advised the removal of a small growth in the throat, to which the Earl consented. Mr. Browne charged thirty guineas for the operation, but the Earl would only pay ten guineas, which he considered an ample fee, as the operation did not cure the stammering. The judge thought it unlikely that Mr. Browne would perform operations on the "no cure, no pay" principle, and gave him a verdict for the full amount. Commenting on the case, the *Globe* very sensibly remarks: "No medical man of repute would pledge himself as to the result of a delicate operation on the throat; still less would he agree to forfeit two-thirds of his fee in the event of failure. No doubt thirty guineas is a pretty high figure to have to pay for an operation which takes only three minutes, and does not produce the desired result, and one quite understands the feeling of Lord Annesley that he has not got value for his money. But then, on the other hand, Mr. Lennox Browne would reply that he had stated the amount of his fee beforehand, that this amount was no more than the custom of the profession sanctioned, and that Lord Annesley had the services of one of the foremost men in that branch of the profession. After all, if one wants to be attended by a man who has a practice which enables him to sell his time at a rate of ten guineas a minute, one must pay for the privilege. When you have ordered a bottle of 1874 champagne, and drunk it, it is not fair to refuse to pay for it on the ground that you could have done just as well on a pint of bitter."

The Queen and the Hospitals.—London newspapers recently announced that the Queen had been graciously pleased to present many bottles of wine to various London hospitals for the use of poor patients. The same papers have carefully refrained from giving currency to the report published in reputable provincial journals, to the effect that the most of the wine in question was the refuse of the royal cellars, and unfit for use in hospitals. It was in very bad condition. Many of the bottles were half empty, and others were so badly corked that the contents had turned sour. It is charitably suggested that her frugal Majesty was ignorant of these defects.

Dr. Charles H. Fisher, of Providence, R. I., Secretary of the State Board of Health, died at the Continental Hotel, in Buffalo, October 21st. He had been in Chicago attending the Health Congress, and while there caught a severe cold. He grew worse on the train and stopped at Buffalo for medical attention.

Temperance and Health. — In view of the many schemes for temperance legislation which throng the political horizon, the report of the Collective Investigation Committee of the British Medical Association, on the subject of "Temperance and Health," possesses a special interest for us. The committee who undertook this work divided the subjects of their investigation into these classes, *i.e.*, total abstainers, habitually temperate, careless drinkers, and the decidedly intemperate. Resultant on their labors in this field of research, the committee give the following table, illustrative of the relative longevity of the persons thus classified:

	Years.
Habitually temperate	62.13
Careless drinkers	59.67
Free drinkers	57.59
Decidedly intemperate	52.03
Total abstainers	51.22

—*The Hospital.*

A Medical Distinction (*Boletin del Instituto Medico Valenciano*, July, 1893).—By an order of the Queen Regent of Spain, all the medical men connected with the university faculties are directed to wear as a distinguishing badge a gold medal suspended by a cordon of the color peculiar to each university.

Recent Bequests.—The will of the late Dr. Parsons, of Providence, bequeathes his medical library to the Rhode Island Medical Society, and four thousand dollars to the Rhode Island Hospital, to establish a free bed in memory of his father, Usher Parsons. The residue of the estate, after paying all of the bequests, is to go to the Rhode Island Hospital. The estate is reported as very large.

The Zoothermic Institute at Rome.—In a contemporary M. Pion gives a description more curious than attractive of a method of treatment which reads like a survival from barbaric times. He writes: "French doctors will not

be sorry to have a recent description of the famous Zoothermic Institute, which provides in perfect style a certain mode of healing much esteemed among Italians. In the abattoirs, fitted up in the most luxurious style, after the latest fashions, and finished only last year, is a special building which I was much surprised to find there. To this place, under the best management, doctors send their patients tortured by rheumatism and gout. Others, anæmic patients, prostrated by the malaric fevers of the Pontine marshes, come there in order to drink blood. The unhappy invalids, without any repulsion, dip their arms, legs, or whole bodies in the warm fluid. The municipality has paid all the expenses of the installation. The prices vary from three francs to seventy-five centimes, while for the extreme poor the treatment is free. There is room for more than fifty patients at a time, and the veterinary inspectors assured me that the results are appreciably beneficial. In a hall above glasses are prepared into which pure blood is poured, freed from fibrin and above suspicion. The animals are previously inspected by the veterinary official. The blood is freed from fibrin by being placed in a kind of round box, hermetically sealed, in which turns a bar of iron, terminated by three teeth. The apparatus revolves after the fashion of an ordinary coffee mill, and the process being performed under cover from the air, no microbe or dangerous germ can penetrate into the liquid."

New York Cancer Hospital.—Dr. George W. Jannan has been appointed Attending Gynecologist to succeed Dr. Clement Cleveland, who has resigned and has been made Consulting Gynecologist.

A New Million Dollar Hospital for New York.—The late Mrs. Mary T. March has bequeathed $10,000 to Bellevue Hospital in memory of Charles March; $10,000 to the Louise Home of Washington, D. C., in memory of the mother of the deceased, and the remainder of the estate to Grace Church, in New York, for the purchase of ground and the erection of a hospital, to be known as the John Pyne March Memorial Hospital for the relief of the sick, aged, and indigent in Grace Church parish. The total estate amounted to about $1,000,000, and the greatest part of this sum goes to the new hospital.

The Madrid Academy of Medicine Prizes. — The Academy of Medicine of Madrid has offered for the year 1894–95 two prizes open to public competition: The Academy Prize of $300, a gold medal, and the diploma of a corresponding member of the Academy, for the best essay on the "Treatment of the Different Clinical Forms, Accidents, and Complications of Diabetes, based upon the Writer's Observations." The essay is to be written in Spanish or Latin. The Alvarez Alcala Prize of $150, and corresponding membership in the Academy. Subject: "Surgical Intervention in Intestinal Obstruction." The essay to be written in Spanish, French, or Latin. The essays must be in the Secretary's possession by May 1, 1894.

A New Hospital Incorporated.—A certificate of incorporation establishing "The New York Throat and Nose Hospital" has been registered in the county clerk's office. The objects of the incorporators are the erecting, establishing, maintaining, and operating a hospital for the reception and care of, and maintaining and giving medical and surgical advice and treatment to, persons afflicted with diseases of the throat, nose, eyes, ears, and lungs. The Board of Managers is as follows: Edward J. Bermingham, M.D.; Andrew Shiland, jr.; Henry Griffen, Charles E. Pell, J. Julio Henney, M.D.; Ferdinand Levy, D. Morgan Hildreth, jr.; Oscar Kress, and C. F. Frothingham.

Obituary.

JOHN C. PETERS, M.D.,

NEW YORK.

VERY few of the older medical men who took part in the active medical affairs of this city during the past generation are with us. Retiring upon laurels faithfully won by hard work, they are being replaced by younger and equally aspiring men, who in their turn will give place to those who are to follow.

But during a long life of usefulness, no one gone or to come, has left or will leave a more enviable record than the good and talented John C. Peters, late of this city, whose death took place at Williston, L. I., on Saturday, October 21, at the age of seventy-four years. The one who would write so feelingly of his contemporaries, and whose biographies were such masterpieces of literary merit, fine sentiment, and interesting incident, has himself become the subject of the last good-by, and has ended his career with a reverent amen. The readers of the RECORD have often, in times gone by, been delighted and edified by the productions of his facile and cultured pen in the lines of thought in which he was interested. Few wrote with greater force or perspicuity on the subject of epidemic influences and their dependence upon germ diseases. His wide reading, unbiassed judgment, and progressive spirit kept him at all times in the lead of all movements calling for high scholarship, and the lofty attainments of good citizenship.

Dr. Peters had practised medicine in New York since 1842. He was born in this city, and was educated at the College of Physicians and Surgeons, and the medical universities of Berlin and Vienna. He was one of the founders, and at one time was President, of the New York Pathological Society, and for many years was editor of the Society's proceedings, was President of the New York County Medical Society, and a member of the New York Academy of Medicine, and of nearly all leading medical societies in the city. He was the physician and personal friend of Washington Irving. Dr. Peters made a special study of Asiatic cholera, and his library on cholera was said to be the most complete in the country. He wrote many pamphlets on this subject. He was associated with Dr. Edmund C. Wendt in preparing a treatise on cholera, and in 1866 wrote Peters's "Notes on Asiatic Cholera," a standard work. Dr. Peters suggested new remedies in the treatment of consumption, Bright's disease, and membranous croup. In 1873 he travelled through the South and Southwest to study cholera, and afterward assisted in preparing a report on cholera which was published by order of Congress. In 1878 he did valuable service in the threatened yellow-fever epidemic. Dr. Peters published treatises on diseases of the brain and nervous system, and assisted Dr. Alexander S. Wotherspoon in translating Rokitansky's "Pathological Anatomy." With Dr. Frederick G. Snelling and others he published "Materia Medica" (1856–60). He retired from active practice about eight years ago, and gave his time to consultations alone until three years ago, when he removed to his Long Island home, where he was stricken with paralysis, to which he ultimately succumbed. Personally, Dr. Peters was a lovable, modest, earnest man, kind and considerate to all, respectful of true merit, and instinctively inspiring in all who knew him a becoming and sincere appreciation of the well-rounded character of a Christian gentleman.

Society Reports.

NEW YORK COUNTY MEDICAL ASSOCIATION.

Stated Meeting, October 16, 1893.

S. B. W. McLeod, M.D., President, in the Chair.

Dangers to the Public Health of New York from Overcrowded Population.—Dr. E. G. Janeway opened a discussion upon this subject with some extemporaneous remarks. The overcrowding to which he referred was more especially in tenement-houses. Small tenements on the east and west sides were being torn down, and tall ones, five or six stories high, twenty-five feet frontage, were being erected in their place and were planned to house as many as twenty families. This was said to be the result of economic conditions, the price of ground necessitating the erection of high buildings. But the same thing was observed above the Harlem River, where much ground was unoccupied and could not be so dear Moreover, the very fact of increasing the number of families in a house, or the number of people on a given area, tended to make the price of ground higher still. Thus it would be seen that one solution of the problem of dear ground consisted in restricting the size of the tenements.

It had been said that the new and larger tenements were more healthful than the old, but Dr. Janeway thought this would probably be only temporary, for with age they, too, would become contaminated with filth and disease, and the greater overcrowding would make them more dangerous.

One could hardly find a more marked contrast between the homes of the people of two great cities, as far as it related to overcrowding, than existed in New York and Philadelphia. These two cities were located only ninety miles from each other, and had not a great difference of climate and surroundings. Philadelphia was built up largely of small houses, with one or only a few families in each house, while in New York the tenement plan prevailed, with ten to twenty families in a building. With a view to determining the effect of overcrowding upon the health of the population, Dr. Janeway had compared the vital statistics of Philadelphia and New York during the past ten years, and had found that in Philadelphia the mortality-rate per thousand each year had been about twenty-two per cent., while in New York it had been about twenty-seven per cent., the percentage varying somewhat in each city from year to year, but always remaining higher in New York. Then it would be expected that certain diseases, especially contagious diseases, would be more prevalent in New York, and so it was, typhoid fever being an exception—as might be expected when one considered the difference in the water-supply. In New York the water was brought a long distance, and was comparatively pure; in Philadelphia it was obtained from the Schuylkill, not far from the city, and it was said that typhoid fever there was mostly due to infection of the water.

Since 1883, the lowest death-rate from typhoid fever for a single year in Philadelphia had been 579; in New York the highest number had not attained to 500, yet the population of New York was considerably larger. The death-rate from phthisis, scarlet fever, diphtheria, and measles had been greater, in proportion to the population, in New York than it had been in Philadelphia, during the past ten years. The ratio should be about eight for New York, five for Philadelphia, whereas it had been about eight to four. Thus, for one year the number of deaths from phthisis in New York had been 5,160; in Philadelphia, 2,636. In both cities, however, the death rate from this cause had been decreasing, a fact which he suggested might be due to spread of knowledge of the infectious nature of the disease. The deaths from scarlet fever in New York amounted to 1,242 one year; in Philadelphia, 298; and this was about the usual ratio between the two cities.

In conclusion, Dr. Janeway said it seemed to him that if New York allowed the erection of such tall tenements to go on, we would see in the future serious results, not only with regard to health, but also with regard to morality, and in case of riots difficulty in controlling the passions of the populace.

The Gregarious Caucasian.—Dr. Charles A. Leale had learned at the anthropological department of the Columbian Exposition, that the Chinese had for centuries met one of the evils of overpopulation by sending an apparatus around on wheels in which infected fabrics and articles were disinfected by dry heat, maintained a number of hours at a temperature corresponding to the boiling point of water. History went to show that certain races were more disposed than others to live crowded together. The white race seemed especially to live in thickly populated districts. Negroes and Indians were more disposed to scatter. The evils of overcrowding had been forcibly impressed upon Dr. Leale in his relations to the St. John's Guild. A short absence from overcrowded apartments sufficed to bring about a wonderful improvement in the condition of sick or weakly children.

Dr. J. R. MacGregor thought the experience of medical men in different parts of the city proved that overcrowding was far-reaching in its evil results. Young men saw more cases of infectious diseases than the older members of the profession, which showed that such diseases were more prevalent among the poor in the overcrowded districts. The height of buildings and number of tenants should be governed by the width of the streets. The dangers of overcrowding were enhanced by the practice of making workshops of the apartments and by the unhygienic habits of the tenants, due partly to ignorance, partly to poverty, and partly to want of privacy. The so-called air-shafts, or wells, between buildings, were channels for conveying foul odors, dirt, and contagion from one floor to another. Doctors should act as missionaries and warn the tenants and the public of their danger.

A Sure Check to Overcrowding.—Dr. J. Lewis Smith gave some experience during his twenty years' connection with infant asylums in relation to overcrowding. Early in his experience, when children were brought from surroundings of filth incident to narrow tenements and were put into a hospital where the conditions were little better, he was told by the person in charge that his visits would be useless, for all children who entered there died, and it proved to be so until the conditions were changed. Death of the little ones was a sure check for overcrowding. A pitiful instance, which was but one of thousands, was that of a family in a new apartment-house, containing perhaps twenty families, the plumbing supposed to be modern and sanitary, but not so in fact. The father was out of employment, the mother was haggard from care. The largest of the two or three rooms occupied by the family was about twelve feet square. In the front room a child lay, whose inspiration was guttural, its neck swollen, and presenting the familiar symptoms of malignant diphtheria. The mother said it had been sick four days, too sick to carry to the dispensary. In the adjoining cold room were the three other children—five, seven, and nine years of age—huddled together, trying to keep warm, and awaiting their turn to be stricken with the terrible malady. Two other children were still at the public school!

The mortality among children was further enhanced by women, compelled to work for a living, putting their babies into the care of ignorant nurses, who gave them bad cow's milk and much opium. The society woman demanded a wet-nurse, and although her own babe might live, that of the wet-nurse almost invariably died. Thus, infanticide was practised in overcrowded New York almost as flagrantly as along the banks of the Ganges. And he had not yet mentioned the alarming extent to which abortion was practised.

Dr. L. Landes, whose office was in the lower part of the city, said he had seen a great deal of the evil of over-

crowding in tenements. The mortality in those districts was almost fifty per cent. higher than in private dwellings. There was not sufficient air-space for the number of people in the apartments, the plumbing was defective, the people were dirty and ignorant; they did not realize their danger from infection, and if they did they knew not how to prevent it. Those who were erecting these large tenements cared only for money; they cared not if the people did die, if only the rent was paid.

Dr. Janeway made a few closing remarks. He said that in Berlin the owner of a lot was not allowed to erect a building which covered more than two-thirds of the ground area.

The Necessity of Perfect Vision in the Education of the Young.—Dr. Frank Van Fleet read the paper. He thought it was admitted that asthenopia existed only among men, lower animals being free from it, and that it was more common among civilized than uncivilized people. The paper was intended to impress upon general practitioners the necessity for correcting weak or imperfect sight wherever it was possible to do so by glasses. Several cases were related in which neglect to do this had threatened the future prospects of the subjects, who had found that, for some unknown reason, they were unable to continue their studies, had been considered dull or lazy, and suffered the displeasure of parent and teachers. More than one had said, on receiving glasses, that a new world had been opened to view.

The paper was discussed by Drs. Hepburn, Cocks, and Bates. Dr. Hepburn said that horses sometimes suffered from imperfect vision, as he had once proven by experiments. Those accustomed to "shy" almost constantly and without apparent reason, had ceased to do so when fitted with glasses.

Dr. Anderson presented a small surgical cabinet, intended ever to be ready for transporting surgical instruments, antiseptic fluids, etc., to the patient's house.

AMERICAN PUBLIC HEALTH ASSOCIATION IN CONJUNCTION WITH THE INTERNATIONAL CONGRESS OF PUBLIC HEALTH.

Twenty first Annual Meeting, Held in Chicago, Ill., October 10, 11, 12, 13, and 14, 1893.

First Day, Tuesday, October 10th—Morning Session.

The Congress convened in Hall 7 of the Memorial Art Palace, and was called to order by the President of the World's Congress Auxiliary, the Hon. Charles C. Bonney, of Chicago, at 10.30 A.M.

Prayer was offered by the Rev. Dr. Parsons, after which addresses were delivered by Hon. C. C. Bonney, Mrs. Charles Henrotin, Dr. A. R. Reynolds, Commissioner of Health of Chicago, representing the Mayor, Dr. E. Liceaga, of Mexico, and Dr. Sarah H. Stevenson, of Chicago.

President's Address.—Mr. Bonney then introduced Dr. S. H. Durgin, of Boston, President of the American Public Health Association, as President of the Congress, who replied briefly to the several addresses, after which he delivered his Inaugural Address. He dealt with matters pertaining generally to the public health. He said the great trust which the Association took upon itself twenty one years ago has been worthily held, and the work to which it has addressed itself in the interest of humanity has been diligently pursued. It is fitting, perhaps, at this time, when we may be said to have attained our majority in years, to take a retrospective glance of public sanitation, and to note the possible results of its application in the relief of human distress. The work of the sanitarian is manifold, and deals with the most vital of our personal and social interests. It deals with the air we breathe, the food we eat, the water we drink, and with the general welfare of mankind. It means the investigation of the rise, progress, and decline of epidemics, and a fostering growth of works and projects designed to prevent and remove the causes of disease.

The sanitarian concerns himself but little with the cure of disease. The problem which he seeks to solve is how disease can be averted. The pathologist establishes the nature of morbid processes, and his investigations suggest to us the appropriate remedy. The aim of the sanitarian is to seek out and remove the cause or causes which produced these processes. It has been said that preventive medicine embraces everything which relates to the physical well-being of our fellow-men, so that it has to deal with all physical evils and, incidentally, many of a moral character. Its object is the health, and therefore the happiness and prosperity, of man.

In the city of Boston our private drainage, like that in most cities, is unsatisfactory, and the cause of an immense amount of inspection, complaint, and annoyance, and undoubtedly the cause of much ill health. We have statute laws and city ordinances which specify the method, material, and workmanship necessary for the construction of house drainage. Plans for construction and repairs are submitted to, and the work approved by, the inspector of buildings.

The Board of Health is called upon to find defects and to order repairs, and such repairs each year number about four thousand five hundred. For the purpose of ascertaining to what extent defective conditions of plumbing exist, and to what extent traps are supplied, and water-closets substituted for privy vaults, we have taken a large number of blocks of dwellings, both new and old, each season for thirteen years, and made house-to-house inspection.

It is a common thing to find on death certificates, instead of the morbid process which caused death, such indefinite information as "disease of bowels," "disease of brain," "disease of skin," "stomach disease," "ascites," "convulsions," "dropsy," "fever," "debility," "teething," "inflammation," "infantile," "heart failure," and other unlikely causes too numerous to mention, and which ought never to be used upon the records as causes of death. In his own city, such certificates are rejected, and a competent physician sent to view the remains, and consult the family or friends of the deceased for information, with which to make a proper certificate. It is to be noted, however, that information gathered in this way cannot be regarded as wholly trustworthy, and often results in the statement of "unknown cause of death."

The mention of cholera, like that of smallpox, strikes terror to the people of this country, and while the deaths from these diseases are infinitely small, the fear of them has served the municipal health officers in securing almost unlimited facilities for their prevention and control, which means may be largely converted to the care of other more common and destructive contagious diseases.

Consumption, the most destructive malady to the human race in our country, has received the necessary attention of the bacteriologist. He has demonstrated to us, satisfactorily, the cause of the disease, the methods of its transmission, and the means for its prevention. He is sorry to say that, as practical workers in public sanitation, we have sadly neglected to apply the means which we believe would prove effectual in largely abating the prevalence of tuberculosis. The isolation of all persons suffering from consumption would be impracticable and perhaps unnecessary, but the use of small sputa cups containing a disinfectant, at home, and bits of absorbent napkin used and securely concealed in travelling, to be burned or otherwise disinfected on returning, should at least be urged by public health officers, and popularized as much as possible.

Turning, in conclusion, from the more onerous every-day duties of the municipal health officer to topics of greater popular interest, we find an increasing growth of public sentiment, in all parts of the country, favoring the municipal provision of large public parks, free public baths, small open spaces, and open-air gymnasiums for

the enjoyment and sanitary welfare of the masses of people whose whole time is spent in the toil of our large towns and cities.

The General Committee of the World's Congress Auxiliary on a Public Health Congress, consisted of Dr. John H. Rauch, *Chairman;* Dr. F. W. Reilly, *Vice-Chairman;* Dr. F. W. Brewer and Dr. C. N. Hewitt, *Joint Secretaries;* Dr. E. Garrott, Dr. J. M. Hall, Dr. John B. Hamilton, Dr. Liston H. Montgomery, Dr. S. J. Jones, Dr. A. R. Reynolds, and Dr. B. J. D. Irwin.

After some announcements by Dr. Brewer, the Congress adjourned until Wednesday morning.

SECOND DAY, WEDNESDAY, OCTOBER 11TH—MORNING SESSION.

The Congress was called to order at 10 A.M. by the President.

Sanitary and Medical Service on Emigrant Ships.—The first paper read was by Dr. ALBERT H. GIHON, Medical Director of the United States Navy, with this title.

Report of the Committee on Restriction and Prevention of Tuberculosis.—This report was read by the Chairman of the Committee, DR. J. N. MCCORMACK, of Bowling Green, Ky. The Committee offered as its report the following conclusions and recommendations:

1. Tuberculosis has been conclusively demonstrated to be contagious, by bacteriological experiments, by clinical observations, and by a study of the history of the disease.

2. Tuberculosis is a preventable disease. Its preventability follows as a logical sequence upon its contagiousness, but has likewise been demonstrated in practical life.

3. The contagium of tuberculosis resides entirely and solely in broken-down tubercular tissue. A person suffering from tuberculosis, therefore, does not become a source of danger to others until he begins to give off broken-down tubercular tissue, either in the form of sputa from the throat or lungs, diarrhœal discharges from the bowels, or matter from a tuberculous sore such as lupus, white swelling, cold abscess, scrofula, or tubercular inflammation of a joint.

4. A person suffering from tuberculosis can be made entirely harmless to those about him by thorough sterilization of all broken-down tissue immediately upon its being given off. With proper precautions, it is therefore possible to live in the closest relation, and upon the most intimate terms, with consumptives without contracting the disease.

5. Tuberculosis is not hereditary. A predisposition to the disease can be transmitted from parent to offspring, but this is more true of tuberculosis than it is of all other contagious diseases.

6. A predisposition to tuberculosis can be created anew by malnutrition or by anything which depresses the nervous system.

7. Tuberculosis affects animals as well as man, and is identically the same disease in both. In domestic life human beings and animals mutually infect each other.

8. The media through which human beings are ordinarily infected by animals are milk and meat.

9. Houses in which consumptives have lived, and in which immediate sterilization of all broken-down tissue has not been practised, are infected houses, and are liable to convey the disease to subsequent occupants.

10. Spitting upon floors and into handkerchiefs, and permitting the broken-down tissue to dry and become pulverized, is a prolific cause of spreading tuberculosis.

11. Temporary occupation of hotel rooms, sleeping-car berths, and steamer cabins by consumptives in the infectious stage, can infect them so as to convey the disease to subsequent occupants, unless proper precautions are taken against contamination of the bedding, furniture, and walls with broken-down tubercular tissue.

We recommend the following practical measures for the prevention of the disease:

1. The notification and registration by health authorities of all cases of tuberculosis which have arrived at the infectious stage.

2. The thorough disinfection of all houses in which tuberculosis has occurred, and the recording of such action in an open record.

3. The establishment of special hospitals for the prevention of tuberculosis.

4. The organization of societies for the prevention of tuberculosis.

5. Government inspection of dairies and slaughter-houses, and the extermination of tuberculosis among dairy cattle.

6. Appropriate legislation against spitting into places where the sputum is liable to infect others, and against the sale or donation of objects which have been in use by consumptives unless they have been thoroughly disinfected.

7. Compulsory disinfection of hotel rooms, sleeping-car berths, and steamer cabins which have been occupied by consumptives, before other persons are allowed to occupy them.

The reports and recommendations of the Committee were adopted.

Tropical Diarrhœa.—This paper was contributed by SIR JOSEPH FAYRER, of London, England, and read by DR. GIHON. This is a form of disease which is generally, if not always, the result of tropical and climatic influences, and the debility and cachexia induced thereby. It is now not infrequently observed in Europe, owing to the ever-increasing means of communication with foreign countries. It is apparently generally confined to adults, is insidious in its onset, slow in progress, and often, when not arrested sufficiently soon, fatal, owing to irreparable degenerative changes. It has been described by many observers, both English and foreign, in India, China and Cochin China, and Batavia. Most of the cases seen in this country come from China, India, or Ceylon. In India it is met with frequently, where a form of it is known as "hill diarrhœa," from its proneness to affect dwellers in hill stations, especially those who have previously lived in the plains; atmospheric changes, vicissitudes of temperature, greater altitude, rarefied atmosphere, and possibly water, being concerned in its causation. Some authors consider it a distinct disease from the white flux which may be seen in any part of the country, but they are so much alike as to justify the belief in their identity, at all events for practical purposes. Occasionally there is a resemblance to certain forms of chronic dysentery; the two conditions may be associated, or one may merge into the other.

Tropical diarrhœa occasionally makes its appearance years after the subject of it has returned from the tropics. It not infrequently begins without any previous apparent derangement of health, though it is sometimes preceded by dysentery, diarrhœa, some indication of malarial infection, or functional derangement of the liver or other abdominal viscera, and is not noticed until excessive soreness of the tongue and loss of strength and wasting reveal the gravity of the condition.

Semeiology.—This form of diarrhœa may begin with simple looseness of the bowels, or may supervene on ordinary diarrhœa or chronic dysentery. The action produces a sense of relief. The dejecta at first may be natural and bilious, but gradually become light colored, frothy, pultaceous, and copious. As the disease advances they are occasionally tinged with blood, and the sufferer becomes more attenuated, exhausted, and incapable of any prolonged exertion. The appetite may be good, but rawness and tenderness of the mouth and tongue, frequently accompanied by aphthous spots and ulcerations, interfere with its gratification.

Treatment.—From the insidious character of the disease, tropical diarrhœa not infrequently gains ground before radical measures for its relief are resorted to. Suc-

cessful issue depends much on the patient's resolution and perseverance in carrying out instructions. Alternations of temperature, errors of diet, fatigue or excitement, exertion, mental or physical, should be avoided. Physiological rest should be insisted on.

There is a tendency in the earlier stages to get well. The object is to favor this tendency, and not thwart it by neglect of precautions. Diet is the most important consideration, and must be strictly regulated and adhered to; and scarcely less important is the question of clothing, habits, and mode of life.

Milk alone should be the only diet, and it must be given in small quantities often repeated, say from four to six ounces every hour, day and night. Larger quantities at longer intervals will not do. When in the twenty-four hours an adult is able to take three to four quarts of cow's milk in this way, ample nourishment is afforded to support his strength and to enable him to recover.

This method of treatment was begun by the author before leaving India in 1872. After prolonged experience and trial of all other forms of remedies, he has found it more effective than anything. It seldom fails except in the very advanced and chronic cases, or in very aged persons. The conclusion arrived at is that, though drugs are generally of little avail, if milk, taken as prescribed, does not succeed, there is but small chance that any other form of treatment will do so.

Cholera Infantum and its Treatment, by Dr. Manuel Septién, of Queretaro, Mexico. The treatment proposed is exceedingly efficacious. It consists in the total suppression of all food and medicine during twenty-four or forty-eight hours, and the prescription of pure cold water in great abundance. The author said there is scarcely any disease that causes a greater mortality in childhood than that known by the name of estival diarrhœa or infantile cholera. In one single week, the last one of July of the present year, there were one thousand one hundred and twenty-six deaths in thirty-three of the largest cities of England, caused by this disease alone. Statistics show everywhere a notable increase in the number of deaths during the months of June, July, and August, that is to say, during the warmest season of the year. The malady is not limited to children only, but attacks also a great number of adults and old people, being less mortiferous in the latter than in the former, in whom it causes a mortality of fifty, sixty, and even eighty per cent. Only Asiatic cholera, to which it has the greatest similarity, can be compared to it for its ravages. It is undoubtedly of microbic origin, as recent investigations have shown.

Energetic drainage is the supreme effort which nature executes to rid the organism of the deleterious elements that poison it. To try to suppress it by therapeutical means is not an easy or rational thing to do. It would only hinder the natural curative process. The only thing that can be done is to oppose the extreme dehydration of the tissues by restoring to them without delay at least a part of the water lost. This is the therapeutical indication, and no drug can take its place, nothing but pure cold water.

All the curative methods tried leave much to be desired. Their results are very precarious; all consist in the administration of various medicinal substances, astringents, absorbents, antiseptics or antiperistaltics, and in the prescription of some alimental regimen. Such treatments, according to the author, are not in conformity with the great principle that governs therapeutics, namely, the rest of the organ that suffers.

The author had practised successfully the treatment recommended by Luton, of Reims. He summarized the points of his paper as follows: 1, To suppress all nourishment and medicine for one or two days; 2, to give at discretion pure cold water; 3, to return by degrees to a rational regimen.

Origin and Dissemination of Typhoid Fever, by Professor W. T. Sedgwick, of Boston. Professor Sedgwick's remarks on this subject were impromptu. He first dwelt upon the reorganization of the State Board of Health in Massachusetts in 1886, shortly after which an experiment station was established at Lawrence for the purpose of studying typhoid fever chemically and bacteriologically, looking to the purification of the water. In 1890 an epidemic of typhoid fever broke out upon the Merrimac River, in the city of Lowell, and shortly afterward appeared at Lawrence, nine miles below. These epidemics afforded unusual opportunities for the investigation of the epidemiology of typhoid fever.

Afternoon Session.

Sewage Disposal.—Mr. Allen Hazen, of Lawrence, Mass., read a paper entitled "The Sewage Disposal Problem in American Cities." He said one of the striking features of the sanitary development of American cities is the very rapidly increasing number of places which, for one reason or another, are treating in some way their sewage. It is not so very many years since there was hardly a sewage purification plant in the United States, while at the present time there are some thirty municipalities, in a dozen different States, which give their sewage a more or less thorough treatment. Of these a number are in the far West, where the sewage has a commercial value for irrigation which has probably been considered quite as important as the sanitary advantages secured by the treatment; but the greater number are in the East, where a dense population and increasing desire for cleanliness in the waters of streams and lakes, and particularly in water-supplies, has brought to an issue problems which as yet have scarcely received the attention of the inhabitants of the less thoroughly settled States.

There are two sewage problems which are entirely different in their nature, although the same remedies may often be applied to both. There is first the pollution of rivers and lakes to such an extent that they produce a nuisance to the people who live upon their banks, and secondly the pollution of water-supplies by sewage. The first case is often that of a city upon the banks of a small river which becomes so reduced in volume in dry weather that the sewage may fairly be said to be the predominating element in its composition. Up to a certain point, rivers are capable of taking sewage without causing a serious nuisance to the people who live upon their banks, so long as they do not drink from them; but when this quantity has passed, deposits are formed, decomposition sets in, and the stream is rendered foul in appearance and objectionable in its odor. The exact quantity of sewage which can be mixed with water without causing a nuisance, varies with local conditions, and can only be approximately estimated, but as long as the limit is not passed, and the water is not used for drinking, the disposal of sewage by turning it into such water is entirely unobjectionable, and by far the most satisfactory method possible.

Where the sewage of a town is entering the public water-supply of a neighboring town, or worse yet, its own supply, the problem is entirely different. The removal of the organic matters of the sewage becomes a secondary, though still an important matter, while the removal of those germs of disease, which would otherwise work such mischief among the consumers of water, becomes the one important point.

The experiments undertaken by the Massachusetts State Board of Health at the Lawrence Experiment Station, some six years ago, indicated that the local conditions in Massachusetts would allow the treatment of sewage upon land even with more favorable results, both as to quantity of sewage treated, and quality of effluent obtained, than had been supposed to be the case from a study of European practice.

It is impossible, by any combination of chemicals, to secure a purification which approaches, even remotely, the result obtained by land treatment; but when the problem is simply to keep the water into which the sewage flows reasonably clean, the result, with careful manipulation, is quite satisfactory. When, however, the treated

sewage finds its way into the source of the public water-supply, the effluent produced by even the most complete chemical precipitation cannot be regarded as an entirely unobjectionable addition, and such water should be further treated by filtration before use.

The Collection and Disposition of Animal and Vegetable Waste in the City of Milwaukee, by Dr. U. O. B. Wingate, Commissioner of Health of Milwaukee. As early as 1879 the city of Milwaukee began to grapple with the garbage problem, and it has been a long and serious struggle until a recent date. In the winter of 1891–92 the State Legislature passed an act authorizing the Common Council of the city to enter into a contract for the disposition of garbage, with the advice of the Mayor and the Commissioner of Health. It was decided to let the contract for five years to a company who would build a plant fourteen miles out of the city, collect and remove to said plant all garbage, offal, dead animals, both great and small, and animal matter of the city of Milwaukee, including refuse matter from commission houses, etc., to said plant, in which they would dispose of it in a sanitary manner. This contract went into effect and the work was commenced in June, 1892.

The company constructed a plant at an expense of some $110,000. They purchased a powerful steam barge for transportation; they put on fifty steel, air-tight wagon tanks for collection, and two large covered wagons for the collection of large dead animals. Since September 1, 1892, the plant has been in operation to the satisfaction of the city officials of Milwaukee, creating no nuisance or stench whatever that can be reasonably objected to in its location, and the collection and transportation of the material during that time has been fairly satisfactory.

Disposal of Garbage and Waste of World's Columbian Exposition, by Col. W. F. Morse, of New York. Since the meeting of the American Public Health Association, two years since, marked progress has been made in the destruction of garbage and waste of cities by fire. Six years' experience has shown this method to be of far greater value than any other, and improvements in furnaces and reduction in cost of operation have steadily made it more popular and useful.

England has now furnaces in every large city and the number is yearly increasing. This country is awakening to the value of this method, and it has been inspected and recommended at a great number of places. The most striking and effective work done in the world is at the World's Fair, where two furnaces of the Engle Sanitary Company have been at work since the first of May.

It was early seen that the sanitation of the Fair, the care of the health of the great multitudes resident and who would come as temporary guests, would demand the best, and only those which had been thoroughly tested, methods of providing for the drainage, and the collection and disposal of the great mass of daily accumulating garbage and organic waste. After the drainage was arranged the question of sewerage disposal and garbage destruction came up. A contract was made with the Engle Sanitary Company of Des Moines and New York, for two garbage cremators to burn one hundred tons of sewerage sludge, garbage, and stable refuse. These two furnaces were built in the fall, and at the opening of the Fair were ready for work. They are in the extreme southeastern part of the grounds, near the Forestry Building, back of the power-house of the Intramural Railroad, employing the well-known device of the Engle Company—two fires, one at either end, the one burning the mass of garbage on the grates, the other destroying the smoke, gases, and all results of this combustion. These furnaces have been in constant work every day since May 5th. The garbage is brought at night, from 11 to 8 o'clock, A.M., and placed at once in the furnaces. From twenty-five to forty loads, each of one ton, having sometimes ashes or water in large amounts mixed therewith. Everything goes into the furnaces: four horses, two camels, cows, deer, elk, pigs, goats, dogs, etc., all follow the same road and are burned with equal ease. No results can be seen from the chimney. A thin, invisible carbonic acid gas, discharged at a temperature of 1,000 degrees, is all that results. No smoke, no odors, nothing that can be offensive is detected. Though in daily use, an observer would not know any work was done, unless he came to the building. At 10 A.M. the loads of sewerage cake begin to come. This is a thick, heavy, soggy mass of lime, fecal matter, paper pulp, etc., with sixty per cent. of water mixed. The quantity varies from ten to eighteen or twenty five tons, and is the most refractory material to burn yet found. The fires are oil-fed by jets of air, a pressure of twelve ounces of air doing the same work that is done in the boiler-house with one hundred and twenty pounds of steam. The ashes are used by Exposition people for filling low places, though they have a value of $10 per ton for fertilizers. There are six burners spraying oil, the whole using thirty-seven and one-half gallons per hour. The cost for fuel and labor is from 75 to 85 cents per ton for sewerage sludge, and 50 to 70 cents for garbage.

At other places where these same furnaces are used the cost is reduced by bringing to the furnaces the paper, sweepings, and all kinds of city combustible waste, which makes fuel to burn wet matter and reduces the cost 12 to 15 cents per cubic yard, or 30 to 40 cents per ton.

Official reports from Savannah were read, showing the cost for last eight months to be 11 cents per cubic yard. The work has been continuous, no stoppage, no nuisance, performed under observation of thousands of persons, inspected by many interested in this work from abroad, and has met with deserved credit and favor from the Board of Administration.

By adoption of similar furnaces at four points in Chicago, the whole garbage nuisance could be abolished, the same work done for the city that is here performed, at a reduced cost, and the vexed problem of garbage disposal settled and got rid of once for all. This is no theory or experiment. This company was asked to do this work because they had demonstrated elsewhere their ability. There are forty furnaces or more built by the Engle Company and in successful operation; more than twenty times as many as have been built by others; but this is the most successful instance of the destruction of garbage on a large scale that has been seen in this country.

How Can Women Promote Public Sanitation?—by Dr. Sarah H. Brayton, of Evanston, Ill. She said, as instructors in hygiene nurses have a wider scope for sanitary reform than physicians, living as they do with the families they attend their opportunity for the diffusion of knowledge is greater. Undoubtedly there is much that women could do on health boards, there is more that they must do among their own sex to increase the sum of sanitary knowledge among all classes and promote intelligent co-operation with health authorities, whoever they may be.

The Progress of Sanitary Knowledge among the Women of England.—This was the title of a paper contributed by Lady Priestley, of England, and was read by Mrs. Henry Wade Rogers, of Evanston. The author of the paper went back twenty years, when she first jointed the Executive Committee of the National Health Society, and attended the meetings in a small, dingy, draughty room in a house about as unsanitary as any to be found in London, and traced the progress made in sanitary science from that time to the present. The author would impress upon all mothers, and those who are responsible for the welfare of others, the desirability of giving personal care and forethought, which alone can avert the consequences of unsanitary surroundings.

Notes on Cholera and its Management in Hull, England.—This was the title of a paper contributed by Dr. John Wright Mason, Medical Officer of Health in Hull, but was read by Dr. Charles N. Hewitt, of Minnesota, in the absence of the author. The first epidemic of cholera occurred in 1832, but the total number of deaths from the disease did not exceed two hundred and seventy. On August 10, 1849, the great visitation of

the disease commenced. The total number of cholera and diarrhœa victims during the invasion was 1,860, being one in forty-three of the whole population of eleven thousand. Six hundred persons died from cholera alone in one week in September. The average age of the victims was from thirty to thirty-six. Of the total number of deaths recorded, seventeen hundred and thirty-eight belonged to the laboring classes, and one hundred and twenty two to the wealthy. The greatest mortality occurred in those parts of the town where the levels were the lowest, and in which the unsanitary surroundings were the most noticeable. It is recorded by an eminent minister that on one day—black Sunday—he himself interred no less than forty-three bodies of his fellow-citizens. The water-supply was at that time obtained from the stone-ferry waterworks, situated one and a half mile from Hull and two and a half miles from the mouth of the river, the water being obtained from the River Hull, the widespread character of the epidemic being greatly attributed to the impurity of the river water. Since 1849 Hull has increased both in wealth and population, and its area has been considerably extended. The number of emigrants passing through the port *en route* for America has averaged between fifty thousand and sixty thousand yearly during the past ten years. The Infectious Diseases (Notification) Act, 1889, has been applied to the port as well as to the urban authority. Measles was included among the notifiable diseases on February 10, 1893.

Cholera follows the line of international communication, and with the modern increased facilities for rapidity of transit, so is the danger of its possible invasion increased by emigration or otherwise. England does not depend upon the false security of quarantine, but rather upon its sanitary administrations, and each district should be in such a state of sanitary preparedness that the disease, if imported, should not spread. The experience of 1892, during the epidemic at Hamburg, in those ports which were exposed, and possibly none more so than the port of Hull, which was in daily communication with that cholera-stricken city, must have inspired confidence in the public mind in this country and the continent of Europe that medical inspection, the due regard for the rigorous inspection of all articles likely to convey infection, improved sanitation, and efficient hospital equipment, were alone sufficient to arrest the progress of the disease. Our first line of defence against the introduction of cholera consists of the medical inspection upon arrival, both by day and night, of all vessels from cholera infected or suspected ports, and should cholera have developed during the voyage among any of the passengers or crew, the removal of the patients to hospital and the isolation of suspected cases, and the detention on board the vessel of such persons who may be in a filthy or otherwise unwholesome condition, and who cannot satisfy the medical officer of health as to their place of destination.

The second line of defence against the possible introduction of cholera, or other diseases, should be well protected, and the early preparations against the means by which such diseases, if imported, spread, should be studied, thought out, and perfected in the interim, and not during epidemic prevalence and excitement. Special attention should be directed toward a pure and unpolluted water-supply, the periodical and regular removal of all excreta and refuse matters in the midst of populations, the frequent flushing of all drains and sewers, the prevention of overcrowding, the systematic inspection of common lodging-houses, and lastly, but not least, our food-supplies.

Hull is essentially a privy town. The death-rate of Hull from all causes, for the ten years 1882 to 1891, averaged 20.7 per thousand. The death-rate from fevers during the same period was equal to 1.26 per thousand, and for diarrhœa alone 1.10 per thousand.

The author then dwelt upon the management of cholera. The precautions which are adopted in Hull of what has been described as "the movement of a sanitary column," are as follows:

Immediately upon the receipt of a notification of cholera, or of sudden illness of a choleraic character, either by the medical practitioner in attendance, the sanitary inspectors, or the police, the medical officer of health is communicated with and immediately visits the case, or in his absence his assistant. Should the case admit of removal, the horse ambulance, fully equipped with trained men in attendance, is immediately requisitioned by telephone. The assistant inspector of nuisances for the district in which the case occurs, is forthwith acquainted, and makes his appearance with a column comprising flushers, lime-washers, and disinfecting staff. He superintends the removal of the inmates of the house to hospital for the purpose of bathing and the disinfection of their clothing, the disinfection of the house, together with all articles of bedding, clothing, etc., which have been exposed to infection, and the destruction of such articles as may be ordered by the medical officer of health or his assistant. The contents of the privy are removed to the destructor for cremation and the interior cleansed, disinfected, and lime-washed. The subsidiary drains in the immediate contiguity of the house are thoroughly flushed, and disinfectants are freely distributed in the neighborhood of the outbreak.

(To be continued.)

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

OPENING OF THE SCHOOLS—LORD THRING AT ST. THOMAS'S HOSPITAL—SECRETS OF SUCCESS—PRESENTATION TO DR. BRISTOWE—DR. LIONEL BEALE, F.R.S., ON PROGRESS AT KING'S COLLEGE, AND ON THE NATURE OF LIFE—THE NEW SESSION AT THE MEDICAL SOCIETIES—PLACENTAL HEMORRHAGE—INFLUENCE OF SEASONS AND WEATHER ON PUERPERAL FEVER—STATISTICS OF LYING-IN HOSPITALS—TYPHOID FEVER—WEST LONDON SOCIETY—CLINICAL SOCIETY—NOTIFICATION OF INFECTIOUS DISEASES—DEFECTS OF METHODS—INSUFFICIENCY OF HOSPITAL ACCOMMODATION—NEGLECT OF OBVIOUS PRECAUTIONS AT A HOSPITAL.

London, October 7, 1893.

All our schools are now at work, the great October festival for the year having gone off with its customary *éclat*. At St. Thomas's Hospital Lord Thring distributed the prizes and delivered a sympathetic address on the occasion. He was particularly happy in his allusion to the hard work and scanty pay of the rural practitioners, and pronounced it one of the glories of the great profession, which sent into the remotest districts worthy members, who cast a bright light over the dark abodes of misery, and deserved more than any other class the affection of the poor and miserable. To the students he said he could not offer them professional advice, but he could urge them to diligence and perseverance in their important studies. For success in life he declared that what was the first necessity was perseverance, the second was perseverance, and the third was also perseverance. Another secret was to be always ready, watching and hoping for opportunity.

Then followed an interesting ceremony—the presentation to Dr. Bristowe of his portrait, which had been painted by his daughter and exhibited at the Royal Academy this year. Old students and colleagues purchased the portrait from the artist and presented it to her father. The balance—for there was a balance—of the subscriptions is to be devoted to a medal for proficiency in pathology.

King's College is often called sectarian and narrow, just as its rival is called godless. Lionel Beale is Professor of Medicine at King's, and to him this year the introductory lecture was intrusted. Your readers are acquainted with his writings and will be prepared to learn that he gave a good account of progress in this

school, and put in an excellent defence of the orthodox view of the nature of life. Many questionable assumptions have been dealt with by Dr. Beale in his work on protoplasm, and now he pointed out that it is mere assumption to suppose that because we know more about matter and force, we also know more about life. Dr. Beale sees nothing in science to prevent the Christian looking back in the past for unchanged and unchanging perfection, although Mr. Huxley asserts that the "ecclesiastical spirit . . . that clericalism is the deadly enemy of science." Dr. Beale thinks Mr. Huxley will have no supporter among scientific men in this contention, and that to bring such a charge in these days is ridiculous and like beating the air. The assertion that the formation of every living thing "is a purely mechanical problem" the lecturer pronounced to be devoid of all foundation. "The machine which we call the body," said he, "is not a machine, for the human body has grown and must die, while the machine is made, but has never lived and cannot die." Mr. Huxley's lecture at Oxford, when he told the story of Jack and the Beanstalk, and remarked that the plant building itself up and then withering might "be likened to the ascent and descent of a slung stone, or to the course of an arrow," was then answered by Dr. Beale to the effect that the comparison suggests that the stone slings itself and the arrow shoots itself. And this, he continued, "is the physical consummation of all things from the first to the last, and we may hope it will be the last of such shadowy vaporings, which emanate from cosmic vapor, are nowhere, and lead to—nothing." In Mr. Huxley's late lecture it is said that "natural knowledge tends more and more to the conclusion that all the choir of Heaven and furniture of the earth are the transitory forms of parcels of cosmic substance wending along the road of evolution from nebulous potentiality . . . back to the indefinable latency from which they arose." This statement was traversed by Dr. Beale, who asserted his conviction that in all science no justification for such a conjecture is obtainable, and that there is no evidence whatever that "natural knowledge tends," as asserted, or ever did tend, or ever will tend to the conclusion that life has anything to do with "nebulous potentiality," or "indefinable latency," but Dr. Beale slyly added the admission that we may agree that whatever has really come from "nebulous potentiality" will no doubt "wend its way to indefinable latency." There are many other points in Dr. Beale's introductory which make it worthy of careful reading. He concluded as follows: "If we allow ourselves to be influenced by facts and reason, we must conclude that life is not a property of matter, that the living world and the non-living world are distinct, and that the former is not a natural outcome of the latter; that if all living things were destroyed, the matter of their bodies and the matter of the non living world would remain indestructible, but would also remain incapable of giving rise to new life; and that up to this day it has not been shown that fundamental religious beliefs have been shaken, destroyed, or rendered untenable by the wonderful truths which have been established by the unprecedented progress of scientific discovery in every department of natural knowledge during our time."

London, October 14, 1893.

Teachers and students have now settled down to the regular work of the session. Even freshmen are finding their way about, and their seniors are, of course, perfectly familiar with the routine of the schools. The societies have also reopened, and there is a goodly bill of fare at several.

At the Obstetrical Society, on the 4th, a case of placental hemorrhage was related and some interesting remarks followed. The patient, aged nineteen, was frightened by a rat, and a subsequent speaker said that a fright by a mouse or rat, of which women are unaccountably afraid, is a common cause of the accident. In this case Dr. Muir said there was a recurrence within two weeks, and therefore premature labor was induced by Dr. Griffith. On examining the placenta indications of the two hemorrhages were found, the older involving two-fifths and the other one-fifth of the mass. Obviously any further hemorrhage would have been fatal to the fœtus; so, as the patient would not consent to remain in the hospital, Dr. Griffiths operated. Dr. Hayes supported the practice in recurrent hemorrhage not due to placenta prævia.

The relation of external meteorological conditions to the incidence of febrile diseases in childbed was the subject of a paper by Dr. Boxall, which is a sequel to a former paper of his. Statistics of mortality were submitted from the Registrar-General's returns for London and Professor Lusk's table for New York, showing the death-rate from puerperal fever to be higher in winter than summer. This is also the case as to morbidity according to the statistics he submitted from the records of the General Lying-in Hospital. On the other hand, septic illness, though more prevalent, is less severe in winter than in summer. Dr. Hayes was sceptical of general statistics and deprecated any suggestion that the occurrence of these febrile attacks might not be entirely the fault of the practitioner or the nurse. Dr. Champneys thought it possible that the lack of ventilation in winter might account for the facts. Dr. A. Routh remarked that people were less inclined to wash their hands in cold weather, and suggested that, like birds, beasts, and fishes, women might arrange to bring forth in summer only. The President (Dr. Herman) said the main conclusion cannot be disputed, and is confirmed by Dr. Minor's observations on erysipelas in the puerperium. Though infective agents may be many, he said all are amenable to cleanliness and antiseptics. In his reply Dr. Boxall said his object was to show that meteorological conditions had little or no direct influence on the incidence of septic illness. The winter months were the time of greater want and exposure among the poor, and the differences he had shown in general practice were scarcely perceptible in hospitals, showing that the influence of season must be indirect.

The President of the West London Society related his experience of typhoid fever, derived from one hundred and sixteen cases in ten years, with a mortality under ten per cent. He deprecated the extreme antipyretic treatment, and held that the low mortality of relapsing fever, in which the temperature often runs to 107° F., shows that pyrexia *per se* is not necessarily of grave omen, though pyrexia plus the disease which causes it may be so. Thus in acute rheumatism a high temperature might be an appalling danger, while in influenza, ague, or relapsing fever, it might be of slight moment. He supported the use of alcohol in typhoid and strongly deprecated the use of aperients during the entire period of the disease.

The programme at the Clinical Society last night was the Presidential address; a paper by Mr. Mayo Robson, on "Dilatation of the Stomach with Severe Pain Dependent on Pyloric Adhesions, Treated by Abdominal Section and Separation of the Abnormal Attachments;" "Two Cases of Excision of Malignant Tumor from the Large Intestine," by Mr. W. Edmunds; "A Case of Gastrojejunostomy," by Mr. L. A. Bidwell.

The methods of notification of infectious disease are certainly very imperfect, and some able persons still oppose this plan of restricting their spread, as they believe that we can never achieve an ideal success. Some rather awkward illustrations of the difficulties in which we are involved by existing legislatives have lately found their way into the newspapers, where, of course, any mistake of a professional man is sure to draw the small wits of some journalist or other. In spite of the sincere effort of the majority of medical men to act up to the directions of the present law, several of our brethren have been called to account for slips and have been fined for neglecting to notify. I am sorry to say that in some instances medical officers of health have not shown that courtesy to prac-

titioners which is expected of professional brethren, who ought at least to be gentlemen. Friction must ensue when the sanitary authorities are devoid of tact or even deficient in that important qualification for public work.

In consequence of the spread of infectious diseases the Asylums Board has had all its hospitals full, and some painful cases have occurred of the patient being taken from one place to another, and to a third, without finding a vacant bed. Some of the general hospitals, too, have had their fever wards fully occupied by cases developed in other wards.

We fine a cabman who neglects to disinfect his vehicle as occasion requires, we fine the persons who neglect to notify a case of infectious disease, some sanitary authorities are such zealots that they insist on every medical man who sees a case notifying the same, and so compelling even consultants, when called in, to send an additional notification. But it seems impossible to provide against every event. Here is a case that came within my knowledge last week in one of our large hospitals with an excellent medical school. A student contracted scarlet fever; the house physician looked after him and, I dare say, other members of the staff gave advice; a nurse was procured from outside to watch the case and was expected to go home at night to sleep, and it was proposed to call in another to take the night work and go home to rest by day. These nurses were, of course, liable to a fine for walking through the streets after exposure to infection, and if their families had contracted the disease the cases would have been notified, and probably the hospital authorities and others concerned would have discovered the danger of thus boldly setting at naught the Act of Parliament. Even had there been no question of law I find it difficult to understand how, in the centre of a flourishing medical school where the antiseptic cult is fully carried out, the most ordinary precautions should thus have been neglected. Even prior to the Notification Act such obvious danger of spreading scarlet fever would have been recognized and avoided.

CEREBRAL ANÆMIA AND PUERPERAL ECLAMPSIA.

To the Editor of the Medical Record.

Sir: In the excellent report of the Canada Medical Association which appeared in your issue of the 14th inst. I am made to say I doubted that the brain was anæmic in puerperal eclampsia, and that I thought that the brain was congested. As I hold very strong views on this subject, and as they have always been exactly the opposite to those credited to me in the report, kindly allow me to state what I did say, as may be seen in the stenographic report. I said that there was no room for doubt as to the convulsions being due to the presence of a poison, which was urea and nothing else, and that the urea accumulated in the blood because the kidneys failed to do their work of eliminating it. They failed to excrete urea because they were in a state of congestion or chronic inflammation, and for the same reason they allowed the albumin of the blood to pass through them. Some thought that the anæmia of the brain was the cause of convulsions, but it was rather a coincidence, the brain and every other organ being rendered anæmic by the albuminuria. The dropsy was merely the result of the poverty of the blood in albumin. In my opinion the cause of the whole trouble is pressure on the venous circulation of the kidneys, as it was much more frequent in primiparæ and still more so when they had twins or were otherwise rendered very distended. I was one of the first in this country to advocate the immediate lessening of this pressure by the rupture of the membranes, which in this case is much preferable to the slower methods of inducing premature labor. Some have maintained that this would bring on convulsions by reflex irritation, but even if it did it would not be so apt to do so as natural labor later on when the kidneys had become still more disorganized. In fact I have gone so far as to hold that it was our sacred duty to terminate every pregnancy as soon as we discovered that the urine was loaded with albumin, for if we allowed this state of affairs to go on too long the kidneys might become, as they frequently do, irretrievably injured I therefore heartily agreed with the management of the case by the reader of the paper, namely, the immediate rupture of the membranes and the administration of a drachm of chloral hydrate by enema for the purpose of relaxing the os and diminishing peripheral irritation. In my experience the albuminuria and dropsy began to diminish and the excretion of urea to increase immediately after the rupture of the membranes, although convulsions might still continue owing to the injury already done to the nerve-centres by having been bathed in poison for so long a time. Hoping that my great interest in this subject may be a sufficient excuse for this letter,

I am, etc.,

A. Lapthorn Smith, M.D.

Montreal, Canada.

THE INTERNAL ADMINISTRATION OF CALOMEL IN THE TREATMENT OF PSEUDO-MEMBRANOUS LARYNGITIS.

To the Editor of the Medical Record.

Sir: As I may be considered responsible for the perpetuation or reintroduction of the calomel treatment for pseudo-membranous laryngitis or diphtheria, by the publication of my essay on the subject[1] in 1886, I therefore derive much pleasure in reading the valuable contribution of Dr. S. Kohn, of New York, in your issue of August 19, 1893, and I desire to say that the calomel treatment has continued to hold its record with me for excellence since the publication to the profession of my brief essay. The period since then is over seven years, and as I had resorted to this plan of treatment for over ten years before I published my essay, certainly the method must have real merit, when it has not been abandoned by me in that long time, excepting occasionally to test some of the many other methods, which after a careful trial disappointed me and impelled me to return to this one.

The profession will have noted that since the appearance of my article the general exhibition of mercurials in this disease has been quite a common and rather efficient practice. I cannot but regard them all as modifications of the calomel treatment, without, however, the higher efficiency of the calomel; that is to say whatever good they have accomplished is by reason of the antiseptic action of the mercurial used, and as but few of them admit of so large doses as is permissible with calomel, therefore their antiseptic effect is not sufficiently strong locally, within their limits of safety, in the throat, where a youthful patient is liable to swallow a poisonous dose, for example, of the bichloride of mercury.

I have been much surprised and no little pleased with the wide dissemination of the ideas I reintroduced to the profession in my article in 1886, and the evidence I have received from the many sources of their adoption, both in America and Europe, and I am none the less pleased with the evidence advanced by Dr. Kohn, of New York, and with his independent arrival at such similar results to my own from the calomel method of treatment; in fact, I consider his arrival at such excellent and certainly similar results, although beginning the use of the remedy as he did about a year and a half after the publication of my essay to the profession, as none the less justly claimed by the doctor as being "the result of his own thought and experiment" and I make Dr. Kohn my sincerest congratulations.

It is a pleasure to give due credit, and to Dr. W. C.

[1] On the Simplest and most Effective Treatment of Diphtheria: A paper read before the Congress of the American Laryngological Association at Philadelphia, 1886. Vide Transactions of that Association for 1886.

Reiter, deceased, of Pittsburg, belongs the honor of teaching and practising this method during his long and honorable career in this city. But as the doctor was generally accused (but not justly so) of giving calomel for every ill, his teaching did not receive the attention it merited with regard to the treatment of pseudo membranous croup by calomel, and as the treatment had never been a general one before Dr. Reiter's time, I was impelled to make it known to the profession. In the year previous to that in which I published my essay, I found in a non-medical book [1] an account of the exhibition of calomel in croup, about 1797 to 1799, and as I had nowhere in medical works been able to find a perpetuation of the plan, I thought it fair that I should give an account of it, with due credit to Dr. Hamilton, of Edinburgh, Scotland, who was, so far as I could learn, nowhere recorded in medical annals, though he richly deserved to be.

As over seven years have passed since the publication of my article, it may not be uninteresting, to repeat my quotation from the book:

"A few months after the birth of Sydney Smith's daughter, he went in the summer for a short time to Burntisland, a small sea-bathing place at no great distance from Edinburgh, for the recovery of his wife's health; and here but for his courage and firmness, he would have lost his long-wished-for daughter in a way he had not at all anticipated. When only six months old she fell sick of croup with such fearful violence that it defied all the remedies employed by the best medical men there. The danger increased with every hour. Dr. Hamilton, then one of the most eminent medical men in Edinburgh, was sent for, could not come, but said, 'Persevere in giving two grains of calomel every hour; I never knew it to fail.' It was given for eleven hours; the child grew worse and worse; the medical man in attendance then said: 'I dare give no more; I can do no more; the child must die; but at this age I would not venture to give more to my own child.' 'You,' said Sydney Smith, 'can do no more; Dr. Hamilton says to us, "Persevere;" I will take the responsibility, I will give it to her myself.'" He gave it and the child was saved.

To anyone caring to see the brochure of Dr. Reiter, which is little known of, and is so peculiar in its style as to entitle it to be considered an oddity in medical literature, I will say that it was published by J. B. Lippincott & Co., in 1878, and it is entitled "A Monograph on the Treatment of Diphtheria based upon a New Etiology and Pathology," by William C. Reiter, A.M., M.D.

The matter of detailing cases from my case-books, which will supply several hundred cases treated by calomel, with the usual symptoms and repetition of treatment, I do not deem altogether necessary here, but I shall repeat here some rules which I gave in my essay for the use of the practitioner:

1. Give calomel untriturated and unmixed with sugar, in doses of two to five grains, to a child from two to five years old, every two hours, either dry on the tongue or floated on a teaspoonful of water, until you procure the peculiar chopped spinach-colored stools, *i.e.*, stools looking much like the water polyps one sees floating in an old-country roadside watering-trough.

2. When these stools are procured, then increase the interval but don't diminish the dose. Continue to secure two stools daily, at least.

3. Give little, if any other medicine.

4. Give light nutritious diet.

The treatment is so simple and easily followed, both by practitioner, nurse, and patient, and the results are so far superior to any other I have tried, that I again recommend a trial of it to the profession with confidence.

W. H. Daly, M.D.

Pittsburg, Pa.

[1] A Memoir of Sydney Smith, edited by Mrs. Austin, vol. i., p. 63. Harper Brothers, 1855.

New Instruments.

SOME REMARKS ON THE ADMINISTRATION OF ANÆSTHETICS.

With a Description of a New Anæsthetizer.

By A. M. ADSIT, M.D.,

Hastings, Minn.

For years I have been convinced that the methods in vogue for the administration of anæsthetics are not only faulty but in many cases extremely dangerous. Physicians seem to forget that neither chloroform, ether, nor any other anæsthetic can be substituted for air.

The most frequent method of administering ether is by saturating a towel, covered with a cone of paper. This device is held tightly down over the face, almost wholly excluding the air. The patient is compelled to breathe the vapor but slightly diluted. Administered in this way it acts as an irritant to the mucous membrane, and the initial effect is the arrest of inspiration.

A study of those cases in which death is reported to have been caused by the administration of ether, demonstrates that a majority die during the initial stage of anæsthesia, or at least exhibit marked signs of disturbed respiration resembling asphyxia.

The symptoms usually given as arising from the administration of ether, during the first stage, are the following: The face becomes flushed, red, or slightly livid. The veins become distended, and the arterial pulsation in the temples more pronounced. The pulse becomes full and quick. The respiration is increased in frequency, is sometimes catching and shallow, and sometimes scarcely perceptible, ceasing for considerable intervals. Coughing is excited by the local stimulating effect, and there is an increase in the quantity of mucus. These symptoms teach two things: first, that ether strikes its first blow at the respiratory centres; second, that the vapor has not been given sufficiently diluted with air. It is generally admitted that death from ether, as a rule, is due to direct paralysis of the respiratory centres. I do not doubt that the respiratory centres are affected by the ether; but I believe that the paralysis has a greater cause in the limited supply of air and in the hasty initial administration. I believe that the greatest danger in the inhalation of ether lies in this initial disturbance of inspiration, preventing the proper æration of the blood, and, as a result, we have the flushed face, the distended veins, the coughing, the jerky, catching inspiration, the increased flow of mucus, and the wild struggle for liberty. To avoid these bad effects two rules must be observed; first, begin the administration with air lightly charged with ether; second, always permit all the air necessary to sustain life comfortably. By this I mean as much as the patient would require were he engaged in his usual pursuits

There is no good reason why a patient does not require as much air while taking an anæsthetic as at any other time. If you think that they secure the needed supply of air, place a cone over your own face and permit some one to hold it down tightly for five minutes. I think you will experience difficulty in inspiration, have a sensation of suffocation, and the people about you will observe that your face is flushed, the veins distended, and that your complexion is a shade darker than usual.

I think that it is generally taught that in order to produce anæsthesia with ether you must exclude the air, or at least only admit sufficient to produce evaporation. This doctrine is founded upon a false principle. All substances, chemicals, or mixtures that will not produce anæsthesia when diluted with air are not anæsthetics proper, but rather asphyxiating agents.

Chloroform and ether are the most perfect anæsthetics we possess, both being capable of producing anæsthesia quickly when inhaled with an abundance of air. After anæsthesia is obtained, then the all-important point is

simply to maintain the anæsthetic condition. This can be accomplished by adding only a sufficient quantity of the stupefying vapor to accurately balance or replace the amount being constantly eliminated. Elimination takes place quite slowly; hence but a small quantity should be given each minute and at regular intervals. At this stage the greatest danger lies in the over-saturation of the tissues. How often at this period we see the physician add one, or even two, drachms of ether, or twenty to sixty drops of chloroform to an inhaling or evaporating apparatus, and as often observe the inspirations nearly cease, requiring the instant removal of the anæsthetic for the purpose of giving the patient a few inspirations of pure air. It is this careless method of administration which causes the tissues to become over-saturated and paralyzes the nerve centres, when, in reality, at this stage all danger should have been past.

In the administration of ether not more than fifteen drops should be used the first minute, or the equivalent of one drop to each inspiration. Of chloroform, not more than four drops should be given the first minute, and the quantity given at any one time ought not to exceed fifteen drops. We need not fear prolonging the stage of excitement. This stage is more frequently caused from the sensation and belief, on the part of the patient, that suffocation is imminent, than from the direct effect of the anæsthetic.

After the first fifteen drops of ether have been inhaled the patient will have become accustomed to the vapor, and all fear of impending danger removed from his mind. Now, we can gradually increase the quantity to from thirty to sixty drops per minute, or, if we are using chloroform, from five to fifteen drops. As soon as anæsthesia is obtained, the quantity should be reduced to about fifteen drops of ether, or four of chloroform, which will quite accurately represent the elimination.

In order to properly observe the above instructions a specially constructed apparatus is imperative. The essentials of such an inhaler are:

1st. An opening admitting sufficient air to enable the patient to breathe comfortably, and the air should pass down through the vapor so as to be thoroughly mixed with it.

2d. A reservoir large enough to hold a sufficient quantity of the anæsthetic to maintain anæsthesia from one to three hours.

3d. An apparatus regulating or controlling the flow of the anæsthetic.

4th. It should be constructed so as to prevent evaporation into the room, for in the inhalation of ether the vapor is not only a source of annoyance to the surgeon and his associates, but, in some cases, even dangerous from its inflammability.

5th. It should have a large evaporating surface, so as to evaporate the anæsthetic quickly and thoroughly as it falls from the reservoir, for it is only in this way that the quantity used can approximately represent the amount inhaled by the patient each minute.

6th. To obviate the necessity of the patient exhaling through the instrument, and thereby forcing the vapor into the room, the inhaler should have an opening admitting the vaporized air, and another to carry off the expired air. These openings should be closed by valves, and the slightest breath should be sufficient to move them.

Fig. 1 represents a section of my instrument, with shield attached. The different parts of the instrument are represented by letters, and are thus explained:

A represents a screw valve passing down through the reservoir *C* into the funnel *D*. By this device the flow of the anæsthetic is controlled. *B* indicates the opening through which the reservoir is filled. *E* represents a space for carrying the shield *K* when not in use. *F* represents openings through which a full supply of air, charged with the anæsthetic, passes down for inhalation by the patient. *G* and *I* represent valves. These valves are held in place by steel springs. The springs are so constructed and arranged as to evenly balance or neutralize the weight of the valves. By this device the valves are moved by the slightest breath, for the resistance of gravity and friction are entirely overcome. *H* and *J* represent openings through which the patient exhales.

Fig. 2 represents one of the perforated plates and thin blotting-pads, by which we secure a large evaporating surface.

The instrument which I have been using is roughly constructed, and imperfect in several respects, yet I have

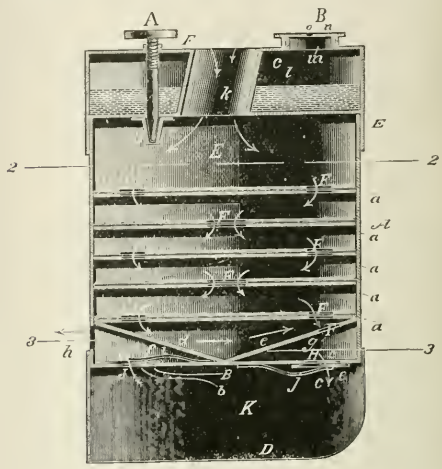

Fig. 1.

been able to produce anæsthesia with ether in from two to twenty minutes. The quantity of ether used varied in different cases. I have generally found one-half ounce to two ounces sufficient for minor surgical operations.

The stage of excitement I find to be scarcely perceptible, and my patients do not complain of difficult breathing. Their complexion may be flushed, but there is no coughing or jerky catching respiration. The quantity of mucus is not materially increased.

Charles Truax Green & Co., of Chicago, Ill., have made me an instrument constructed on the principles set forth in this article. Its dimensions are as follows: Height, a little over five inches; greatest diameter, three and one-half inches; capacity of reservoir, three ounces.

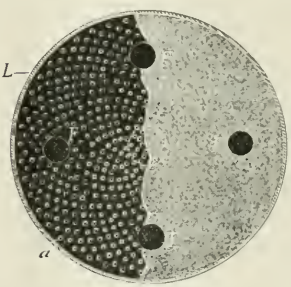

Fig. 2.

I believe this inhaler to be safe, economical, and as well adapted to the administration of chloroform or mixtures as ether. Suspended by an elastic cord from the ceiling, it makes a very convenient instrument for the administration of chloroform in obstetrical practice.

The patient grasps the inhaler and holds it down over her face, but as soon as the muscles of the arm and fingers relax, the elastic cord carries it away, and the valves close, preventing the escape of the anæsthetic into the room.

Medico-philosophic Definitions. — *Health.*—A unit that gives value to the zeros of life (Jousset). *Hunger.*—Dyspepsia of the poor. *Remorse.*—Moral indigestion. *Life.*—That which holds matter together (Bichat).

A NEW INTRA-UTERINE IRRIGATOR.

By ALAN B. MURRAY, M.D.,

COKEDALE, MONT.

THE ordinary metallic intra-uterine irrigator, having direct and return tubes, is objectionable for several reasons, the principal one of which is that it is almost impossible to properly clean the tubes. After having tried a variety of the instruments commonly in use, it occurred to me that an irrigator made of hard rubber, with the inner or direct tube removable, would do away with several of the objectionable features. Acting on this idea I have had Messrs. Tiemann & Co. make for me the instrument here illustrated. Made of hard rubber, it is unaffected by any

of the usual irrigating solutions. After use, the removal of the inner or direct tube renders the cleansing of the return tube a simple matter. After properly cleansing and boiling, the instrument is rendered absolutely aseptic. There are no points within the tube for the lodgement of shreds of tissue or blood-clots.

RING'S OCULAR MASK.

By FRANK W. RING, M.D.,

NEW YORK.

THIS mask is designed for the purpose of protecting eyes from injury, especially after cataract extraction. Eyes are not infrequently lost after extraction of cataract, from force inflicted by the patients, either consciously or unconsciously, and this device serves as a complete protection, as it is quite impossible to disturb the eye without breaking the tapes.

One great advantage consists in the security with which the bandage may be permanently removed at the end of from thirty-six to forty-eight hours, by simply filling in the oval depression in the mask with cotton—it being desirable to relieve the eye from the pressure of the bandage, and consequent heat and soaking thereby produced, as soon as possible.

The patients are always very anxious to have the mask applied, especially at night, as it gives them a feeling of security against accident.

This shield is made of papier-maché, lined on the outside with silk and inside with linen.

It is made to fit the contour of the average face. If the nose should be rather prominent, cut two snips either side of the nose-piece. If less prominent, fill in the space with a little cotton. Surgeons using other dressing than the roller bandage will find it of especial advantage. It is designed to be used immediately after operation, and may be continued for some days. If one desires to give the patient light, a perforation may be easily made with a penknife in front of the unoperated eye.

As a matter of cleanliness and safety against contagion a new mask should be used for each patient, especially as the cost is so moderate.

These masks may be obtained from E. B. Meyrowitz, 104 East Twenty-third Street, New York.

BLUNT-HOOK AND HOOK-KNIFE FOR FACILITATING THE OPERATION FOR SECONDARY CATARACT.[1]

By JOHN HERBERT CLAIBORNE, M.D.,

ADJUNCT-PROFESSOR OF OPHTHALMOLOGY IN THE NEW YORK POLYCLINIC.

THE instruments which the accompanying cut represents are intended to facilitate the operation for secondary cataract. It is a well-known fact that after the lens has been extracted from an eye the remains of the capsule are often found to be so dense and opaque that the usual good results of the operation are not attained. This necessitates the operation for the so-called secondary cataract.

Owing to the fact that the attachments of the capsule to the ciliary muscle are insecure and easily ruptured, and owing to the extreme instability of the capsule as it lies between the aqueous and vitreous humors, it becomes a difficult undertaking to tear a hole in the capsule either with a single needle or with two. The endeavor to attain this end with one needle or knife has largely been supplanted by the operation with two needles, in which it is at tempted to *tease* the capsule apart. That even this is difficult to accomplish will be recognized by all who have tried it. The two instruments, as can be seen in the cut, are a blunt-hook and a sharp-pointed knife-hook.

The idea of having them constructed came to me in the following wise:

I removed a hypermature cataract from a woman and had the misfortune to find an extremely dense capsule remaining. It was, indeed, so dense that very little improvement in vision was attained through the operation. Two attempts were made with the teasing needles to tear a proper aperture in the capsule. Failure attended each attempt. The capsule was slightly torn, but not sufficiently. A dense tongue of capsule hung in the rift, and could not be displaced by the teasing needles. Two weeks later I determined to use a small keratome and tear away the tongue with forceps.

A small opening was made at the upper sclero-corneal margin with a keratome, but when I endeavored to grasp the piece of capsule it escaped from the jaws of the forceps and retired to the vitreous chamber. Repeated attempts failed. I was on the point of giving up the task when I thought of Stephens's small tenotomy-hook.

I introduced this instrument through the wound and neatly tucked the tongue of capsule back behind the iris, leaving a perfectly clean and proper pupil. It has remained ever since.

Stephens's hook is a trifle large and hardly has the proper curve for this work.

It will be seen that the blunt-hook here shown is beaked. The knife-hook has the same curve, is very sharp-pointed, with a cutting edge that extends to the

[1] The writer is not unaware that a hook has been devised by Stellwag for the purpose of removing the entire capsule, when it undergoes chalky degeneration, through a linear incision. The method of procedure suggested here differs from that of Stellwag in several respects. Hence he feels himself warranted in presenting the above.

straight shank. The blunt-hook is intended for such cases as the one I have described; the cutting-hook for those in which the capsule has not been torn or split. A small opening should be made at the sclero-corneal margin with a keratome or cataract-knife, and the hook inserted with the curve first. After entering the anterior chamber the point may be turned downward, pushed through the capsule, and the capsule lacerated in any direction or in several.

The operation of secondary cataract has to be frequently repeated. This is a disadvantage, for on each occasion two punctures have to be made in the cornea, the chances of infection are multiplied, and a small opacity often remains at the point of entrance of the needle.

This is certainly not a desideratum. The opening at the site of the old wound when a keratome or cataract-knife is employed heals rapidly under antiseptic surgery, and the curve of the cornea is not appreciably altered by the resulting cicatrix.

It is hoped that these two instruments may be of use in rendering the operation of secondary cataract more satisfactory.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending October 21, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	51	18
Scarlet fever	59	6
Cerebro-spinal meningitis	5	5
Measles	88	3
Diphtheria	167	36
Small-pox	25	3
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

Early Sanitation.—As far back as the reign of Richard II. we find an act for "the punishment of them which cause corruption near a city or great town to corrupt the air" (12 Rich. II., c. 13, A.D. 1388), the preamble of which notes that so much filth "be cast and put in ditches and other waters, and also within many other places . . . that the air there is greatly corrupt and infect, and many maladies and other diseases do daily happen." This is essentially sanitary legislation. A century later we find an act under the heading, "Butchers shall kill no beasts within any walled town, or Cambridge" (4 Henry VII., c. 3, A.D. 1487). The preamble of this speaks of the "corruptions engendered . . . by reason of the slaughter of beasts and scalding of swine," the "unclean, and corrupt, and putrified waters," and goes on to the remarkable statement that "in few noble cities and towns, or none within Christendom . . . the common slaughter-house of beasts should be kept . . . within the walls of the same, lest it might engender sickness, unto the destruction of the people." Under Charles II. the "Act for rebuilding the City of London" (19 Ch. II., c. 3, A.D. 1667) provides for the "cleansing and scouring of vaults, sinks, and common sewers," and a few years later, again, we find "an act for the better paving and cleansing the streets and sewers in and about the City of London" (22 and 23 Ch. II., c. 17, A.D. 1670). We must be just to our ancestors; though they undoubtedly had not much science (and did not use long words ending in "ation"), the idea of health as a matter of public concernment was not foreign to their minds. The difference is that what were sanitary instincts in them have developed into sanitary methods with us.—*The Spectator.*

Women Doctors Forty Years Ago.—Medicine as a profession for women is less than fifty years old. Dr. Marie Zakrzewska, of Boston, has recently published an interesting account of the early struggles of the pioneers in this particular field. Harriet Hunt and Elizabeth Blackwell were stirred by the idea that an important work might be done by well-instructed medical women. The materialization of this view resulted in complete social ostracism, impossible to be endured by any but the strongest and most courageous women. No woman doctor ever earned a living before 1860. No respectable family, in any common respectable neighborhood, would let rooms to a woman physician. Even when friends gave her shelter, a business card or sign was not allowed. The lack of practical training was really the stumbling-block, and the cause of all this prejudice.

BOOKS RECEIVED.

THE THEORY AND PRACTICE OF MEDICINE, PREPARED FOR STUDENTS AND PRACTITIONERS. By James T. Whittaker, M.D., LL.D. Octavo, 840 pages; more than three hundred engravings and one chromo-lithographic plate. Extra muslin, price, $5.75; leather, price, $6.50. William Wood & Co., New York.

ANATOMY, DESCRIPTIVE AND SURGICAL. By Henry Gray, F.R.S. Edited by T. Pickering Pick. New American from the thirteenth English edition. 8vo, 1129 pages, illustrated. Lea Brothers & Co., Philadelphia, Pa.

A DICTIONARY OF MEDICAL SCIENCE. By Robley Dunglison, M.D., LL.D. Edited by Richard J. Dunglison, A.M., M.D. New (21st) edition, thoroughly revised, greatly enlarged and improved, with the pronunciation, accentuation, and derivation of the terms. In one imperial octavo volume of 1181 pages. Cloth, $7.00; leather, $8.00. Lea Brothers & Co., Philadelphia, 1893.

A TEXT-BOOK OF OPHTHALMOLOGY. By William F. Norris, M.D., and Charles A. Oliver, M.D. In one octavo volume of 641 pages, with 357 engravings and 5 colored plates. Cloth, $5.00; leather, $6.00. Lea Brothers & Co., Philadelphia, Pa., 1893.

INDEX-CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE, UNITED STATES ARMY. Vol. XIV. Sutures–Universally. Royal 8vo, 1016 pages.

ESSENTIALS OF MINOR SURGERY. By E. Martin, M.D. Second edition. 12mo, 166 pages, illustrated. W. B. Saunders, Philadelphia, Pa. Price, $1.00.

HEATH'S PRACTICAL ANATOMY. Eighth edition. Edited by W. Anderson. 8vo, 744 pages, illustrated. P. Blakiston, Son & Co., Philadelphia, Pa. Price, $5.00.

ESSENTIALS OF BACTERIOLOGY. By M. V. Ball, M.D. Second edition. 12mo, 205 pages, illustrated. W. B. Saunders, Philadelphia, Pa. Price, $1.00.

THE CLINICAL USE OF PRISMS AND THE DECENTERING OF LENSES. By E. Maddox, M.D. Second edition. 12mo, 170 pages, illustrated. John Wright & Co., Bristol, England. Price, 4s. 6d.

MINOR SURGERY AND BANDAGING. By H. R. Wharton, M.D. Second edition. 12mo, 529 pages, illustrated. Lea Brothers & Co., Philadelphia, Pa.

SYPHILIS. By Edward Cotterell. 12mo, 36 pages. John Bale & Sons, London, England.

TRANSACTIONS OF THE ASSOCIATION OF AMERICAN PHYSICIANS. Eighth Session, May 3–June 1, 1893. Vol. VIII. 8vo, 402 pages.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF GEORGIA. Forty-fourth Annual Session. 1893. 8vo, 426 pages, illustrated.

LECTURES AND ESSAYS ON FEVERS AND DIPHTHERIA, 1849 to 1879. By Sir William Jenner. 8vo, 581 pages. Macmillan & Co., New York. Price, $4.00.

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THERAPEUTIC REFLECTIONS.

By SIMON BARUCH, M.D.,

NEW YORK.

THE prudent merchant resorts from time to time to an inventory of his obligations and assets, in order that he may diminish the former and increase or enhance the value of the latter. It would surely inure to the satisfaction of the physician and to the advantage of his suffering clients, if he would follow this example. This I propose to do, asking your indulgence if I bring before you trite observations and experiences which are not novel to you. Indeed if my remarks call forth a responsive echo in your minds, this will demonstrate that I have truly given voice, as is my intent, to actual observations at the bedside. From such I propose to draw lessons and to elicit discussions, which may enable some of us to leave this hall better armed for the battle with disease and death which we are daily waging.

Enthusiasm in therapeutics is indeed unwarranted, for the history of medicine abounds in the rise and fall of the most brilliant structures, in the explosion of the most plausible theories, and, what is more painful than all else, the overthrow of remedies which have seemed to be so firmly intrenched in the minds of the foremost physicians for so long a period that they seemed impregnable against all attacks. I need but call from the shadows of the past the spectre of venesection. Though hoary with age, and lauded by men whose works are to day revered, this therapeutic flower withered under the light of modern physiology and pathology.

Another remedy, once the sheet-anchor in many serious diseases, has been dethroned and has taken the subordinate though most useful position of a simple anodyne.

Time was when in certain forms of peritonitis opium was the chief remedy, because it "acted as a splint to the inflamed surfaces;" to-day, Lawson Tait's teaching, that it is dangerous and that the opposite treatment by saline purgatives is more useful, is most successfully followed. Let him who grows fulsome in his laudations of a remedy, bear in mind how these mighty giants have fallen and endeavor to rescue the remedy he espouses from a similar fate by judicious tests and unprejudiced comparisons. What is the status of therapeutics to-day? What are the assets with which the physician may meet his daily obligations to cure the sick?

Let us confess that the materia medica consists chiefly of medicinal agents, whose action on the human body, with the exception of very few, is uncertain, and whose effect upon disease is either neutral or unreliable. How often can we conscientiously say that we have accomplished, by means of any medicinal agent or combination of such agents, the cure or removal of any disease? With the exception of quinine, and perhaps of mercury and the iodides, there is not a single medicinal agent which may be regarded as actually curative. And yet we constantly meet intelligent physicians who insist upon the contrary, and in so doing neglect remedies that are more valuable because their action is clearly explicable upon rational principles. Faith in drugs is almost as frequent among physicians as faith in being drugged among patients. As an illustration I would refer to a case of acute entero-colitis in a child which I saw recently in consultation with a gentleman who is justly esteemed by colleagues and patients. The usual symptoms, fever, a large number of evacuations, loss of sleep and appetite, etc., were present. Upon the antiseptic theory salol had been frequently administered; to meet other symptoms bismuth, Dover's powders, and other remedies. The simple substitution of intestinal irrigation for the salol, together with an abolition of the milk diet, produced a complete change in this case. It may be held that the latter course is that recognized as proper at the present time. But I cite this case to show that it is not so universally recognized as it should be, and to illustrate the difference between medicinal and nonmedicinal remedies for the purpose of emphasizing the chief point of this paper, viz., the too frequent neglect of those nonmedicinal agents, whose action in disease is so simple, rational and clinically effective, and the unhappy reliance on pharmaceutical preparations whose effect, like that of salol, as an intestinal antiseptic, has never been definitely proven. The vast majority of remedies in our pharmacopœia have no better foundation than salol, and yet they are constantly used upon the strength of so-called clinical observation.

The rock upon which therapeutics has always split, and which continues to menace us because we seem not to profit by the teachings of history, is the treatment of symptoms. In my student days, when venesection was in its last gasp, veratrum viride had in the South gained many adherents. A rapid pulse was the chief manifestation of all fevers; here was a remedy which in small doses perfectly controlled the pulse. A reduction to one-half of its rate could readily be produced. I shall never forget one of the first cases of pneumonia which I treated as house physician of a hospital.

Veratrum was given until the pulse was reduced from 140 to 80, and yet the consolidation continued to the bitter end, and the patient succumbed with a normal pulse. History repeats itself in the application of the coal-tar antipyretics recently so much in vogue.

The temperature may be readily reduced from 105 to 100 and, as in the case of veratrum, we may even have the questionable satisfaction of seeing the patient die with a normal temperature. This striving after symptomatic remedies is the unhappy legacy which our forefathers have bequeathed to us. It is an echo of this mysticism which veiled their idea of disease and which led them to regard the latter as an essence rather than as a manifestation of certain disturbances in the economy which rendered the latter incapable of regulating its functions. Therapeutics would be a simple art in this day of patent medicinal agents, could its aims be merely filled by meeting certain symptoms or certain definite alterations in the functions of the body.

As pathologists it is our function to discover changes in the organs, but as physicians who stand at the bedside of those who implore us to heal them, we can accomplish but little if we are called to act after these changes in the tissues have taken place. As has been well said by another, the physician who is called to combat a case of well-established organic disease with remedies may be likened to the sanitarian who is called upon to prevent an infectious disease by disinfecting the emanation of the patient. The physician who would cure, must assume the task early; in the beginning of that anomalous relation between capacity of the system for work and the demand upon it for work which is really the inception of all tissue changes and which may be prevented by limiting the labor imposed upon the organs. To discover this anomalous relation in its incipiency, and to guard against

its development into organic disease, is the function of the true physician. The latter must soon discover that in this contest medicinal agents play an unimportant rôle when compared with those methods which we learn by observation of nature's course in health. As an illustration may be mentioned dilatation of the stomach, an organic alteration which is most commonly the result of long-continued insufficiency of its functions. The early recognition of the causes, the adaptation of diet, mode of life, manner of eating, gastric lavage, etc., to each individual case, will conduce far more to the prevention and cure of the organic disturbance than all the medicinal agents, from ancient gentian to modern strychnine, from muriatic acid to pepsin. No physician of experience can gainsay this proposition. It must be patent to the most enthusiastic poly-pharmacist that he accomplishes only an amelioration or removal of certain manifestations of disease—a result which may and probably does facilitate a restoration to health, but is rarely if ever the direct means of such restoration.

In the large preponderance of acute diseases, among which may be numbered all infectious diseases, the administration of these medicinal agents is not only entirely symptomatic, but in many instances absolutely harmful. Take as an example a case of appendicitis. The tendency to treat such a case as localized peritonitis and to meet the symptoms tempts the average practitioner to prescribe morphia to subdue pain, ice or poultices to the right iliac regions, food to satisfy the bugaboo of coming failure of the vital powers, and an antipyretic to reduce the temperature. This is not a fancy picture but a chapter from personal experience. Coming into contact with such a case as a consultant, how can the latter take his bearings? Like a mariner in a fog he is handicapped, pain is absent, temperature perhaps normal, all is serene, except the anxious countenance, perhaps vomiting, and the attendant's fear that something may be brewing.

Here the remedies employed have hidden the enemy's movements, the physician has become the ally of the disease; diagnosis and prognosis become difficult, and valuable time may be lost. I am sure many of my hearers have passed through this experience. Am I presuming too much then, if I counsel that in the early stage of disease, the warning of Italy's lamented clinician, Cantani, be constantly before our eyes, "Nil Nocero." To make a clear diagnosis is important for a favorable issue. It is better for the patient to suffer some discomfort than to have his life jeopardized by remedies which obscure the real issues of the case. Later in the case, too, it should be our constant endeavor to avoid damaging the system which is staggering under disease and cries out for every possible aid on the part of the physician. In this day of powerful symptomatic remedies, veratrum for the pulse, antipyretics for the temperature, pilocarpin for the secretions, morphia for the pain, chloral for sleeplessness, all agents which strike mighty blows at the manifestations of disease, often lead to disaster by lulling the physician into a false sense of security. And yet how eagerly they are resorted to, daily observation teaches but too sadly. It may be urged in defence of such a course that the patient and his friends are importunate to have the pain, the fever, etc., combated. Medicine is a business, said a gentleman in a recent discussion on antipyretics, and we must yield to the demands of our patient to be relieved of his fever. It has doubtless been your experience, as it has been mine, that much can be accomplished by placeba, by mild remedies, by gentle reassurance, and by taking the friends into our confidence.

When there is severe pain, as in some cases of appendicitis, I prefer to keep the patient gently under the influence of chloroform until a decision for or against operative measures can be reached. In a case of perforating appendicitis at Long Branch, two years ago, morphia administered by an able colleague was discontinued, chloroform substituted for twelve hours with intervals, until Dr. Wyeth arrived. The patient was not aware of his arrival, nor of the laparotomy performed on her until an hour afterwards. She made a good recovery. Ten years ago the belief had become all but unanimous that the only direction in which therapeutic effort was most conducive to the patient's benefit, lay in following the tendency of nature in each disease. *Vis medicatrix naturæ* is an old rallying cry of the profession, but one which did not gather many steadfast defenders. At one time a complete therapeutic Nihilism, emanating from the Vienna school, threatened to become its expression. But when the chemist evolved those potent therapeutic sledge-hammers which could beat down symptoms, the gentle hand maiden Nature was thrust aside, and the patient was beaten down with the symptoms. To-day a reaction is happily setting in. Once more are heard warning voices that bid us follow Nature's prompting. To join these and to re echo them in these halls, is the purport of my paper to-night. For instance, rest is the first prompting of nature in diseased conditions. What can be more simple and obvious than rest in inflammatory conditions? The surgeon puts an inflamed joint into a splint and trusts to nature, *i.e.*, the restorative powers of the system to heal the disease. May not an acutely inflamed kidney be treated in a similar way? Its functions must go on. in this respect it differs from the inflamed joint. But the intelligent physician, knowing that the chief function of the kidney is to eliminate urea, so arranges the patient's diet that this work is reduced to a minimum; knowing that other functions of the kidney may be vicariously taken up by the skin and bowels, he endeavors to utilize these vicarious eliminants for the purpose of relieving the inflamed organ from labor. And yet we find the contrary so often that I may be pardoned for emphasizing here the necessity, nay the duty, of doing in internal diseases what is so obvious and so successfully done in external diseases. Only recently I saw a case of acute nephritis with a well informed physician of ten years' graduation from a most exacting school, a hospital physician too, who treated the case with digitalis and acetate of potassium as diuretics, because the secretion was reduced to nineteen and a half ounces, paying no attention to the physiological aids which nature points out.

In acute conditions rest must be provided; in chronic conditions rest, judiciously alternated with gentle exercise of the functions of the diseased organs, is indicated, and will prove far more useful than medication. Let me not be understood, however, as despising the latter. There are few to whom I should be willing to yield independence upon our well-tried medicinal agents. But I spurn them if their action is based on empirical observation alone, the *ipse dixit* of one or more men.

Those medicines alone which evince their presence in the system by certain definite signs, have my confidence. When quinine is administered in sufficient doses to cinchonize the patient, I know, without fear of contradiction, that whatsoever effect is produced on the paroxysm may be attributed to it; when it is used in small doses three times a day, for so called malaria, I spurn the remedy as I do the disease. True malaria will as surely yield to cinchonization before the paroxysm, as spurious malaria (the so-called civic or international malaria) will fail to yield to it. This much I may say positively, from a long experience on the banks of Southern rivers.

To refer to the value of salicylic acid in acute articular rheumatism would seem supererogation in this assemblage. But bear with me if I apply it as an illustration of my views on positive medications, for which I plead. I have seen capable men in hospital and private practice order five grains of salicylate of soda every two hours in rheumatism. Is it surprising that these gentlemen are unwilling to testify to the value of this remedy? Twenty grains every two hours of pure salicylic acid until tinnitus aurium is produced and affords evidence of its having been absorbed, is the method I adopt. I can therefore not be charged with antagonism to reliable medicinal agents. I would only inveigh against the thousand and one impotent drugs with which the sick are deluged—drugs

To be continued

without ascertainable effects upon the economy, though many frogs and dogs may have died and lived under their experimental use, have no charms for me. If careful observation among various classes of patients in country and city, private and hospital practice, in peace and war, may crystallize one's experience into some definite shape, permit me to say here to-night that far more actual curative results may be obtained from watching and cautiously following the tendencies of a disease and applying those agents which are potent in maintaining the system in health, viz., rest, exercise, diet, baths, change of environment—than from the most intelligent application of medicinal agents, highly though I esteem some of these. To demonstrate this proposition in a representative acute disease, let us choose typhoid fever. Here we have a malady which runs a more or less definite course, whose etiological factors are beyond our control. We are called upon here to contend against a foe of great power. The system is overwhelmed by the toxines due to the biochemic activity resulting from the life or death of the micro-organism to which the disease is traceable. Be that as it may, we do know clinically that we stand in the presence of an intense toxæmia which exercises a depressing, a devitalizing influence upon the nervous system. Every function which draws its force from the latter suffers visibly. The brain itself is more or less overwhelmed.

The patient lies in a semi-stupor, his face is expressionless, the eyes dull and glassy, lids have closed (typhoid countenance). His perceptions are blunted, he mutters incoherently, he has no control over his sphincters. In brief, there exists great cerebral depression.

The pulse is rapid, feeble, dicrotic—all manifestations of cardiac enfeeblement. The blood is deteriorated; its leucrocytex decreased. The respiration is shallow and ineffective; hypostatic conditions, bronchial congestions, and pneumonia result. The temperature is elevated, either because of the loss of regulatory influence of the heat centres, or by diminution of heat radiation from the skin, or both. The secretions are impaired; the urine, for example, is concentrated, highly acid, and loaded with products of active tissue-change. These, together with the shallow respiration, are evidences of the crippled condition of the emunctories, whose integrity is vitally important for the maintenance of health. In brief, the patient's vitality is sapped because the organs upon which it depends receive imperfect sustenance from the nervous system. Modern physicians are agreed that every effort should be made to maintain the patient's vitality, to counteract the palpable toxamenia, be it due to micro-organism or not, in short to sustain life until the disease has run its course. The expectant treatment, so called, was the outcome of the fatality of the former spoliative treatment. Liebermeister's great success in the Bâsle Hospital made high temperature the chief point of attack. So long as we had no real medicinal antipyretic it was not clear whether to the (medicinal) quinine or to the (physiological) baths administered by him was due the superior results which he attained. The high temperature idea was plausible, and gained many adherents rapidly, until the discovery of the coal tar series brought to the physician the first real antithemic remedies. A few years' use of these positive remedies has awakened the profession to the fallacy of regarding high temperature as the chief lethal agent. To-day a reaction is impending. While in the medical centres the coal tar antipyretics are being reluctantly abandoned, it will be long ere the less enlightened rural practitioner will let this comforting drug slip from his fond grasp. The same fate has befallen other medicinal agents, which, however, were not so readily abandoned, because their specific effects are not so patent; for example, veratrum, to which reference has been already made. To day internal antisepsis has become a fad. Though claiming to be based upon the attractive germ theory, which threatens to upset all past pathology, the advocates of this method have thus far failed to demonstrate its tenability, by actual experiment. Until such demonstration shall be made, it is difficult to accept the idea that the mild antiseptics (naphtholin naphthol, sulpho-carbonate of zinc, etc.), which are applied in typhoid fever, are capable of disinfecting a long intestinal canal, containing more or less fluid, which dilutes or otherwise neutralizes them. Moreover, long before the disease has been diagnosed, during its incubation, these pathogenic germs have been circulating in the blood. Having already passed into the lymphatic glands and spleen, it borders on the absurd to assume that these antiseptics are capable of searching out and destroying them. When the patient comes under observation he is really suffering more (if deductions from recent investigations may be accepted) from the toxines generated by these pathogenic bacilli than from the presence of the latter. Disinfecting the intestinal canal may prevent some auto-intoxication, but it surely cannot reach the pathogenic germs nor its toxines.

That there are fewer bacteria in the fæces after some of these antiseptics are administered, even if it had ever been positively demonstrated, does not by any means justify the deduction that the intestinal mucous membrane has been rendered aseptic, much less so than that pathogenic germs have been destroyed. The surgeon would not be content with such a demonstration. Why should the physician be? Hence this pseudi-scientific claimant to our faith in numerous drugs is feeble indeed, and must go the way of its predecessors.

It follows, from these brief considerations, into which the lack of time does not permit me to enter more fully, that the only active medicinal agents, those agents whose effect has been positively demonstrated, have simply afforded the physician means for suppressing certain pronounced symptoms. Pulse and temperature are still important indices to the condition of the patient. Nevertheless, despite the fact that we have positive medicinal agents to bring them to an almost normal standard, they are proven absolutely harmful by good observers. The physician, therefore, is forced to acknowledge his entire dependence on the *vix medicatrix*, which he attempts to aid by withholding all injurious elements and utilizing physiological remedies.

Rest, seclusion, proper adaptation of food and drink, and cleanliness are the chief agents in the so-called expectant plan of treatment, whose superiority over the former spoliative and the present antipyretic treatment clinical observation has demonstrated. There is, however, one physiological remedy which, judiciously adapted to the case as are diet, rest, etc., has produced a vast improvement in the condition of the patient and in the final issue of the case. The bath treatment of typhoid fever no longer requires defence before an enlightened medical audience. It has demonstrated its value in so many clinical texts on large numbers, that I need refer here only to its salient advantages. Being a physiological agent, *i.e.*, an agent if used in health, promotes the latter, its judicious application is as potent as that of air, food, and rest. Its injudicious application is as injurious as that of the latter agents. For example the wrapping of a typhoid patient in a cold, wet sheet, and sprinkling it with ice water until the temperature is reduced—a method actually used by eminent practitioners—is as injurious to the patient as the exposure to draughts of cold air, or the administration of a mixed diet would be. In the one case it would still be bathing, in the other it would still be ventilating and feeding. In all it would be an injudicious, senseless application of useful, remedial agents.

The judicious application of ventilation and diet are pretty well understood by the profession, the judicious application of water is unfortunately still a *terra incognita* to the large majority. It is true nearly all utilize water in some form. Cold sponging is quite commonly adopted in fever, and yet the feeble refreshment obtained from it may be compared to the ventilation obtained by the opening of a window an inch. Injudicious application

may assume both extremes of directions, doing too much or too little.

The Brand bath has proved the most successful method of treating typhoid fever. The more nearly we approximate it, the more surely may we depend upon obtaining its grand therapeutic results. This has been acknowledged by Juergensen and others, and it is the personal experience of many, myself included.

In a letter received a few days ago from the venerable author of the Brand method, he writes: "Who reads what we write? Who acts upon it? No one. My typhoid treatment has proved this sufficiently now, after thirty years' labor, debate, discussion, and polemics, only a few know, the multitude knows not, what the aim of the Brand method is; they still confound it with the symptomatic method." These words from the man who has revolutionized typhoid treatment are indeed a sad commentary. They truthfully depict the present state of knowledge on this subject. In this city there are only three hospitals in which the Brand method is correctly applied; in others it is modified to suit personal predilections, irrespective of the fact that its results cannot be any more fairly judged by such modification than the rules of antisepsis in surgery can be judged if some essential of cleanliness be omitted.

The rationale of the bath is so simple that it appeals to our best judgment at once. We have an overwhelming of the nerve-centres by the products of infection. The shock and subsequent stimulus to the cutaneous surfaces are conveyed to the nerve-centres, and thence reflected to the heart, lungs, and other organs. Observation at the bedside at once renders these effects patent. The first effect is a refreshment, an enlivenment of the cerebrum. The eyes are opened; the face loses its apathetic stare; consciousness returns after one or more baths: the inspiration is deepened; expectoration is facilitated: the widening of the peripheral vessels and the stimulation of their coats relieve the heart; blood-pressure is increased; and the laboring organ becomes as quiet as does a sea-tossed ship in the hands of a skilled mariner. The secreting glands are aroused to activity. Moreover the temperature is reduced, not so violently as by medicinal agents, but more definitely, more in accord with normal tendencies. In brief, all the manifestations of the disease are favorably influenced because the normal standard is slowly but steadily and lastingly approximated under the influence of repeated judicious bathing. Even the exacting demands of the most recent ideas are met by this treatment. Mentchnikoff has shown, by his interesting studies, that inflammation is the phagocytic reaction of the organism to an irritant." Cells are phagocytes, hungry to devour any toxine or microbe that may find entrance into the blood. We may successfully aid the system in this "reaction against toxines" by endowing its main vitalizing agent, the nerve-centres, with vigor, by furthering elimination from the skin and kidneys, by removing hyperæmia of the organs, and facilitating the passage of phagocytes into the tissues: but more especially by rendering the blood more alkaline, and thus more favorable to the phagocytes.

All these are accomplished, according to well-established experiments, by the cold bath treatment. It has been recently shown by Thayer, in the Johns Hopkins laboratory, that the leucocytes are more than doubled after a Brand bath. On the other hand, the destructive effect of medicinal antipyretics on the leucocytes, their inhibition of excretion of products of tissue-change, and their effect on the heart have been again and again demonstrated.

Here we have an obvious illustration of the action of medicinal remedies and physiological remedies in a very common acute disease. The same observation may be made in all acute diseases, while in those of short duration and characterized by absence of serious depreciating tendencies, medicinal agents are more useful chiefly because more agreeable and practicable than baths, the latter are far superior in all those acute maladies which endanger life. Baths, though unpleasant to the patient and friends absolutely give sustenance to the crippled organs which are struggling to maintain life, while medicinal agents, though agreeable to patient and friends, serve only to enfeeble the heart, cripple the kidneys, and thus aid the disease rather than the patient.

In chronic diseases the difference in effect of medicinal and physiological remedies is no less striking. If such diseases are attacked ere serious organic degeneration has ensued, the most threatening and subsequently incurable diseases become amenable to treatment. Even when these are advanced, good results may be expected. I can affirm, from personal observation, the statement of the great Neapolitan clinician, Semmola, who says: "The methodical, internal, and external application of water, modified in temperature as required. together with climate, an appropriate diet, muscular exercise, etc., are aids by which hydrotherapy excites cutaneous activity and, with it, all functions of tissue changes and organic purification, so that by these means often real marvels of restoration in severe and desperate cases may be accomplished." The reports of the Montefiore Home for Incurables, and my papers read before the State and County Medical Societies, contain clinical proofs of the correctness of this apparently enthusiastic view. Cases of intractable anæmia, dyspepsia, angina pectoris, Bright's disease, diabetes, phthisis, and epilepsy are recorded, which have been under observation by Drs. Gaillard Thomas, Janeway, A. H. Smith, Jacoby, and others, the results of which justify Professor Semmola's claim.

It is not my purpose, however, so much to dwell upon these results as to afford illustrations of the superiority of these hygienic or physiological measures over the medicinal agents. Let us take as an example, for this purpose, chlorosis. I have chosen this chronic affection because it is as well or perhaps as poorly understood as any other, but more especially because, in its treatment, one medicinal agent, iron, has long been regarded as almost a specific. Chronic diseases do not, like the acute forms, tend to spontaneous recovery. Chiefly because patients affected by them are not, as they are in acute diseases, forced to be removed from their etiological agencies, and they are not, as in acute disease, usually subjected to physiological remedies A patient suffering from typhoid fever or scarlatina is withdrawn from the source of his infection; he is placed at rest and secluded—good air, proper diet, etc., are usually afforded him as a matter of course. A young woman suffering from anæmia usually remains within the sphere of the etiological factor of her disease: while the doctor attempts, by iron, food, etc., to reconstruct the blood, which is unhappily regarded as the chief point of attack.

There can be no doubt in the mind of any practical observer, that the same care that is given (perforce) in typhoid fever to the removal of the patient from his unfavorable environment would, if afforded the chlorotic girl, conduce far more to her recovery than the faithful dosing with iron in any of its more or less vaunted forms. Who has not seen a pallid school-girl, who had been for months dosed in vain with Blaud pills, regain her ruddy color, spirits, and appetite so soon as she was removed to the country, where she had access to unpolluted air, water, and food; where she was allowed untrammelled movement of muscle and lung and heart? Hygienic remedies are as potent for good here as they are in typhoid fever. Many of the latter recover under the expectant or medicinal treatment, more recover under a rational application of physiological remedies; many cases of chlorosis recover at home, even under unfavorable conditions and unphysiological treatment, more recover under the judicious use of exercise (rest, which is just as important), proper (not necessarily so-called strengthening) food, etc. Despite these patent facts, physicians continue to ply these unhappy patients with drugs whose reputation rests upon a purely empirical basis. The abuse of iron in anæmia is a crying shame, when it is considered that the quan-

tity in the entire human body amounts to about fifteen to forty-five grains, and that the greatest loss ever found in an anæmic patient was three to four grains, which one quarter pound of good beef would readily furnish. How much more rational is the removal of the patient into pure air, where the hunger of the oxygen-carrying hæmoglobin may be appeased. How much more rational than iron administration is the placing of an anæmic seamstress (?) into a well-aired hospital ward, where good food, rest for her treadle-wearied limbs, baths, etc., could be methodically applied.

Allow me to urge a more methodical application of non-medicinal remedies. If there is any point upon which we are derelict as a class, it is the lack of precision in our prescription of remedial measures, especially those valuable non-medicinal agencies which, as Nothnagel and more recently Osler have shown, are coming to the front as chief remedies. While there is no lack of insistence upon the systematic administration of medicines, while the regulation teaspoonful doses three times daily, or powder every three hours, is swallowed with the utmost punctuality, the patient suffering from a chronic malady is allowed to drift along as best he may, taking his exercise, his diet, his rest, his bath, as pleases his sweet will or suits his personal convenience.

In this connection I cannot refrain from again referring to the neglect of the chief hygienic remedy in chronic disease—water. Its value in acute diseases is so recognized by some of the best teachers in this city and country that I may well leave its fate to the good seed annually sown by these earnest men. In chronic diseases, however, which are the bane of our lives and the opprobria of medicine, much missionary work is required to arouse a just appreciation of the great value of water as an auxiliary to other physiological remedies. Abroad this is no longer the case. The most prominent teachers and consultants constantly dwell upon and prescribe it. In this country a few men like Draper and Peterson have written upon it. The clinical results obtained by it abroad and at home surely entitle it to a more careful investigation. While electricity, whose clinical results are far inferior, is taught in our schools, there is not a single chair from which the principles of hydrotherapy are explained or its technique demonstrated. If one tithe of the interest manifested in new drugs, which in most instances benefit only the manufacturer and leave physician and patient deluded and disappointed, were devoted to the study and practice of hydrotherapy, our knowledge of this subject would be enriched and suffering humanity would rise up and call us blessed.

If I have referred more freely to the application of water in this connection, my reason lies in the fact that it is the most powerful agent among physiological remedies, both for evil and for good, and the least understood and appreciated by the profession. The extract from Dr. Brand's letter given above and the rare application of hydrotherapy in chronic diseases testify to the truth of this proposition.

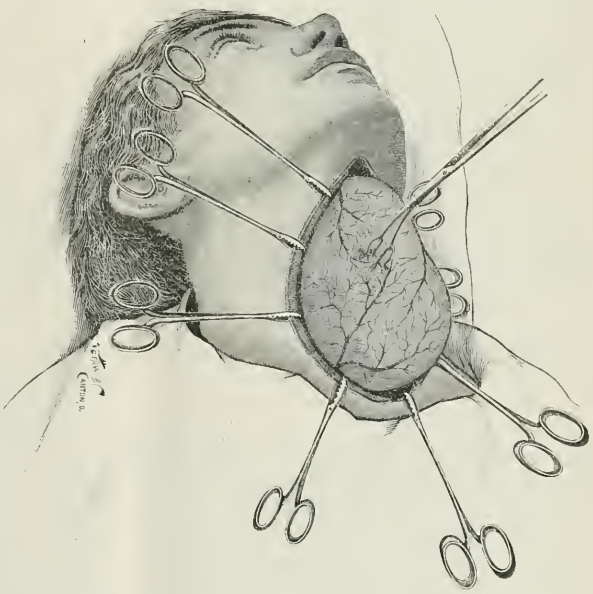
Though the modern physician claims to have emancipated himself from dogma and the schools, he is enslaved by the drug-prescribing habit. Drugs are to-day presented in alluring forms and rapid succession; they come to us not with the sounding of trumpets but with the insidious claims of a few clinical tests of Professor So-and-so and Private Docent So-and-so. Often we are not even vouchsafed information as to their method of manufacture. If their composition is given, it is in the new chemical nomenclature, which to most of us is absurdly incomprehensible. For instance, agathin, a new remedy extolled for neuralgia, is said to be the salicyl-alpha-methyl-phenyl-hydrazone; it is obtained by the interaction of salicylic-aldehyde and alpha methyl-phenyl-hydrazone.

I plead to night, not for the abolition of drugs, some of which I value as highly as anyone, but for a more methodical application of remedies like rest, exercise, diet, water, and proper environment—remedies which boast of greater antiquity than any medicinal agent, remedies which have demonstrated their value in all epochs of medical history and which to-day challenge the most searching investigation.

AN OPERATION UPON AN INTERESTING CASE OF CYSTIC DEGENERATION OF THE THYROID GLANDS, WITH A REPORT.

By J. S. PYLE, M.D.,
CANTON, O.

Clement N——, aged twenty-one, consulted me, about August 10th, as to the propriety of removing a large growth of eight years' standing from the anterior part of the neck. The patient's condition at this time was becoming rapidly dangerous, the breathing was labored and the voice markedly husky. Severe dyspnœa was excited upon the least exertion. Examination of the source of the trouble revealed the presence of an enormous new-



formation extending from the hyoid body above and disappearing into the thorax below. Its lateral boundaries corresponded to those of the neck. The growth was pressing heavily upon the trachea, which occasioned the labored breathing. The sternum in front prevented a forward expansion, and hence the cause of the pressure upon the trachea. The urgency of the symptoms made it necessary to decide upon its removal. The patient entered my private hospital September 1st, and was operated upon the same day. The thyroid origin of the growth was easily made out, but its real nature was not determined until after the beginning of the operation, which was found to be cystic, the degenerative changes apparently commencing in the isthmus and extending to both glands. As far as it was possible to make out, no glandular substance remained. The growth was surrounded by a dense capsule, which was opened and the contents shelled out without in any way rupturing the

walls of the cyst. The appearance of the tumor is shown in the accompanying illustration after it was released from behind the sternum and before the capsule was opened. The lower third of the growth was fully concealed by the thorax and rested in approximation to the arch of the aorta and apices of the lungs. The excision was commenced by a vertical incision in the medium line of the neck, cutting through the integument and deep fascia, and following the interval between the sternohyoid muscles until the covering of the growth was reached. At this time the patient's breathing became very difficult, and it was found necessary to release the tumor from its thoracic environments, which was done with the index-finger, and with complete relief to the patient. The capsule was now opened and the cyst stripped of its envelope. This occupied but a few minutes and was attended with but little hemorrhage. The operation could not be said to be difficult, but a thorough knowledge of all the important anatomical structures and great self-possession are the prerequisites of success. Oozing of blood continued for several hours, and the wound for this reason was not closed until hemorrhage had almost ceased. Owing to the deep pocket formed behind the sternum by the removal of the growth, a strip of gauze, soaked in carbolic solution, was placed in it and allowed to protrude through the lower angle of the wound, to empty the space of blood that would otherwise accumulate. With the drainage arranged in this manner the incised borders were approximated with silk sutures. Healing was immediate, and the case was discharged in two weeks entirely recovered. The points of interest in this case are of physiological significance. No glandular substance could be found, and yet the patient showed no sign of abnormal nutritive changes, which is so characteristic of other cases that have been reported. His body appeared well nourished, but the color of the skin was strikingly sallow. The gland had undoubtedly not been functionating for a long time. The question which arises is whether the capsule in any way compensated for the loss of the glandular substance, or does the age in this case have anything to do with the delay of the characteristic symptoms?

68 West Tuscarawas Street, September 25, 1893.

REPORT OF A CASE OF SYMPHYSEOTOMY.

By J. S. BROWN, M.D.,

MONTCLAIR, N. J.

ATTENDING SURGEON TO MOUNTAINSIDE HOSPITAL, MONTCLAIR, N. J.

Probably never before, in the history of operative obstetrics, has an operation been proposed which in the same period of time (about eighteen months) has attracted such general attention than has the revival of symphyseotomy. The reason is plain. Fœtal destruction is distasteful to all, and the thought of having destroyed human life, whether by craniotomy or by unusual traction made by forceps or version, leaves an impression of cruel and unscientific work. The following case is reported, not only because of the happy result and the aiding of statistics, but also because it well represents a class of cases, whose pelvic diameters have always been considered too great to admit of Cæsarean section, yet whose delivery by either forceps or version must surely prove disastrous to the child.

On the morning of September 8th, I was asked by Dr. L. W. Halsey to see in consultation Mrs. O——, aged twenty-five, white, United States; four feet ten and one-half inches in height, and of an average weight of one hundred and ten pounds. She had been pregnant on one previous occasion, and was delivered at term on April 2, 1892, of a dead child, weighing seven pounds, after a forceps delivery which amounted to a craniotomy, the head being crushed to such an extent that the eyes were pushed from their orbits. The present labor had been in progress about twenty hours—a midwife being in attendance. Dr. Halsey had been called about an hour before my arrival. The woman's general condition was pitiable—fully exhausted. Her face and eyes were œdematous from straining. The vulvæ were enormously swollen. The os œdematous, dark, and protruding. The latter condition caused by the pounding of the child's head against the lower uterine segment and pelvis. The membranes had ruptured. The head presented R. O. A. The pelvis was a generally contracted flat pelvis, with an antero-posterior diameter of three and one-quarter inches. I applied an Elliott forceps, and retracted os; but after repeated trials to make the head engage, I became satisfied that delivery with a living child by this means, or by version, was quite impossible, there being such a disproportion between head and pelvis. The child was still alive, the fœtal heart-sounds being distinctly heard. Symphyseotomy was decided upon as offering the best chances to both mother and child. The sacro-iliac joints were movable. The method of technique has been so often described that it is sufficient to state that the operation was done cleanly and the method of Morisani used. The subpubic ligament was left intact. It is worthy of mention, however, that the incision was made with one stroke of the knife, no dissection being used, and the fibres of the pyramidalis were but slightly separated. The forceps had been left upon the child's head, and a sterilized towel wrapped around the handles. This latter procedure would seem to be an advantage when one was cramped for help, as then no time is lost in their application. The pelvis was now supported by Dr. Halsey, and much to my gratification, the head at once engaged and with good but gentle traction was delivered. Some little trouble was experienced in extracting the shoulders, the child being large and weighing immediately after birth ten pounds. The child was somewhat asphyxiated, but soon revived and cried lustily. The placenta was easily expressed. The parts were well cleansed, and tears of the vaginal wall due to over-distention looked for. One was found commencing in the vestibule to the left of the urethra, and running one inch inside of vagina, communicating above with the incision over symphysis. A suture passed just back of the rent, pulled the vaginal wall forward, and the rent was closed with a continuous suture of sterilized five-day gut. The incision over symphysis was closed by a layer of buried gut uniting all subcutaneous tissues down to bone, fine iron-dyed silk being used to unite the skin. The method of bandaging, while perhaps not new, was eminently satisfactory. An assistant grasping the trochanters and raising the patient from the bed, a strip of three-inch rubber plaster was run from one anterior-superior spine of ilium, around body over opposite trochanter. A similar piece was placed opposite, thus crossing over incision and holding the gauze dressing firmly in place. Over the rubber plaster, and in a similar manner, were run several layers of plaster-of-Paris bandage. The result being to place the pelvis in a case not easily soiled, and one that could be depended upon to keep the bones in apposition. A catheter was tied in the bladder and the parts disturbed as little as possible for the first three days. The nurse had no trouble in keeping the patient clean, being able to raise her without injury. The case did nicely, the temperature reaching its highest point on the evening of the third day, 100⅘° F., then falling to normal and remaining there. The stitches were removed from the incision over symphysis on the seventh day. Primary union was secured throughout. The vaginal tear was also examined at this time, and found completely closed. The patient sat up on the twenty-first day, and walked on the twenty-sixth. Strange to say, the patient showed few signs of weakness from her long confinement in bed. There was no so-called waddling gait. The symphysis seems firmly united. The child continues to thrive, and is a well-nourished baby-boy.

In an interesting and instructive article in the *Medical News* of August 5th, Dr. Robert P. Harris reports twenty-five similar operations in the United States. I

have been able to find reported since, one. Four mothers have died, and seven children have been lost. Four, stillborn. The other three have died from one to seventeen hours after birth. One from long head-pressure, one from meningeal hemorrhage, and one from injuries received during attempts to deliver. The cases which have proved fatal to mothers have been of such a desperate character when the operations were performed, that, judging from the reported histories, one would expect two to die, no matter how treated, while the third and fourth might have recovered, had sepsis not occurred in the symphysis of the third, and a double pneumonia from exposure in the fourth. The operation, taking all cases reported throughout the civilized world, gives a mortality far greater than does conservative Cæsarean section under antisepsis, as managed in the best maternities of Europe. Statistics are deceptive at their best, but to calculate the mortality in our own country on twenty-seven cases, would seem misleading, especially so when one considers that the best results have been obtained from operations performed early, before the patients were greatly exhausted. Unfortunately, most of the operations in the United States have been upon cases which have been seen late. This latter statement is true of my own case, and if a woman who has been thoroughly infected by a dirty midwife and allowed to remain in agony for many hours, till nature rebels, does not develop a septic metritis, it is because God is good.

October 9, 1893.

TREATMENT OF FRACTURES INVOLVING THE ELBOW-JOINT.[1]

By JAMES E. MOORE, M.D.,

MINNEAPOLIS, MINN.

So many bad results have followed these fractures in the past, that surgeons the world over have been somewhat inclined to accept of the situation and conclude that a very large percentage of bad results was unavoidable. The experience of our best surgeons of the present day, however, demonstrates that a good result is the rule, and that a poor result is the exception; and the exceptions are growing beautifully less from year to year.

The poor results are deformity and anchylosis. The fact that better results are being obtained now than formerly, goes to show that a large percentage of bad results was not a necessity, but was due to bad surgery. If foreign surgeons follow the instructions laid down in their books they must expect bad results. American surgeons, in this as in every other branch of mechanical surgery, have taken the lead.

The deformity in fractures involving the elbow is usually due to loss of the "carrying function," and this loss is due to a failure upon the part of the surgeon to place the arm in the proper position.

The laity, and unfortunately many doctors, do not seem to understand that a normal arm is crooked at the elbow when in extension. I have been consulted many times by persons who had accidentally discovered that they had crooked arms, and who seemed greatly surprised when informed that the Almighty makes arms that way. Writers upon anatomy and surgery have laid too little stress upon this "carrying function." It is best demonstrated by bringing the arms close to the trunk with the forearms extended and supinated. This wise provision of nature, which enables us to carry a heavy weight in each hand without interfering with locomotion, would seem to be a strong argument against our ever having walked upon "all fours." This function differs very much in different individuals, and many times there is a marked difference between the two arms of one individual. The angle is usually greatest in muscular persons, and least in women and children; although I have seen it very marked in women who had very large hips.

The indications for treatment in this class of fractures are just the same as in any other: viz., to place the fragments in proper position and hold them there. Much depends upon the first dressing. It is rarely necessary or advisable to make local applications to reduce the swelling or inflammation; in fact, much harm has resulted from delay in order that useless liniments and poultices might be applied. The fragments should be placed in proper position at the very earliest time possible. If reduction cannot be readily accomplished without an anæsthetic, one should be administered. In the vast majority of cases reduction can be readily accomplished by straightening the arm, and gently pushing the fragments into place with the fingers. Occasionally, in fractures of the lower end of the humerus, the fragments are so misplaced that they cannot be reduced by manipulation. In such cases they should be cut down upon, under proper aseptic precautions, and reduced through open wound. Having made an open wound to reduce the fragments, they should be wired. After reduction the arm should be compared with its fellow. The apices of the outer and inner condyle, and of the olecranon process, should form a straight line across the back of the arm when the forearm is extended. The distance between the point of the external condyle and the tip of the olecranon should be greater than between the last-mentioned point and the apex of the inner condyle.

The forearm should be extended and extension kept up by an assistant while the dressings are being applied; and just before the dressings are applied the arm should be compared with its fellow, in order to estimate the size of the angle between the arm and the forearm, or, in other words, to see that the "carrying function" is properly preserved. The dressings should be applied ordinarily with the forearm extended. There are exceptional cases, however, where the fragments can be controlled better with the elbow flexed. Within the past year I treated a case for Dr. Beard, in which I could not keep the inner condyle in position with the elbow extended.

I advise the straight position because I believe that in the majority of cases the fragments can be controlled best in this position, and because the "carrying function" can be preserved. The most unsightly deformities following these fractures are due to the loss of the "carrying function," and these cases have usually been treated in the flexed position. When the arm is flexed it is very difficult to tell whether this function is preserved or not. The majority of fractures involving the elbow-joint have been treated in the flexed position, not because the fragments could be held better or because deformity could be prevented, but for the sole reason that the surgeon feared anchylosis, he very properly claiming that if anchylosis should follow it would be better to have it in a flexed position. With good treatment anchylosis will very rarely follow, and even if it should occur with the arm straight, it is a comparatively simple matter to put a crook in it.

The parts having been properly placed and the dressings applied, the arm should be kept at rest for four or five weeks, or until union is complete. In other words, the passive motion should not be employed until union is complete and all dressings removed. I have followed this plan for years, and find that passive motion is rarely called for even after the dressings are removed, because motion is quite free and the natural use of the arm is the very best kind of motion for it.

This "anchylophobia," that has prevailed in the profession for so long, is responsible for much bad surgery. It is not only responsible for the treatment of elbow fractures in the flexed position, causing deformities that might otherwise have been prevented, but it is responsible for much meddlesome surgery called passive motion, which in its turn has many times caused arthritis, and consequent anchylosis. As a rule, it is not the fracture *per se* that causes anchylosis, but the amount of inflammation following the injury. Now, if there is any one thing well-established among orthopedists and those having large experience in the treatment of inflamed joints, it is that absolute rest is the best treatment. Rest

[1] Read before the Hennepin County Medical Society, October 2, 1893.

never causes anchylosis. I have very often kept healthy joints at rest for months, and have never seen anchylosis follow. I have kept inflamed joints at rest for years and seen them get well with some motion. Of the many anchylosed joints coming to me following fractures, I believe that most of them have been due to ill-advised passive motion rather than to the injury. These cases almost invariably give the history of prolonged torture from passive motion. As a means of overcoming existing anchylosis, passive motion is very valuable, but as a means of prevention, I am very sure it has done more harm than good.

While I emphatically denounce unnecessary interference with a joint fracture, I am just as emphatic in asserting that it is necessary to change the dressings from time to time owing to circumstances, particularly during the first two weeks. Whether there is much swelling or not, the size of the arm will vary, so that a dressing which fits nicely and holds the fragments perfectly when first applied, may be a bad fit and fail to hold the fragments after a few days. Any material that will hold the parts properly may be used as a splint.

My preference is for plaster-of-Paris, because it meets the indications so beautifully; because it stays where you put it, and because a restless patient or meddlesome friends cannot misplace it.

After union is complete, if I find free motion, even if limited, I do not employ passive motion, but advise the patient to begin using the arm at once. When motion is not free, or when it is very limited in extent, I employ passive motion for a few times, until a certain amount of free motion is present, which is gradually increasing, after which I am content to depend upon the use of the arm to restore the joint to its normal condition.

I wish to mention fracture of the olecranon very briefly, just to demonstrate the inconsistency of the advocates of passive motion. We all agree that extension is the only position in which this fracture should be treated, because it is the only one in which the fragments can be approximated. Passive motion is seldom attempted here, even by its most enthusiastic advocates, because of the danger of interference with union; or if it is advised, it is not until union is quite well advanced, when the joint has so far recovered from the injury that motion does not injure it. We do not expect, nor do we get, anchylosis after this fracture, and one very important reason why we do not get it is that, instead of fearing anchylosis, we fear non-union, and are therefore content to work a cure without interference.

Allow me to ask in conclusion if it would not be better for our patients and for ourselves, if we had some such wholesome fear concerning other fractures of the elbow?

The best article I have read upon this subject was written by John B. Roberts, and appeared in the *Annals of Surgery*, May, 1892.

Thyroid Therapy for Psoriasis.—Struck by the remarkable improvement observed in the condition of the skin in cases of myxœdema treated by the administration of thyroid extract, Dr. Byron Bramwell, of Edinburgh, was led to try the same agent in the treatment of some chronic and obstinate cases of psoriasis, with results that were at once surprising and gratifying, as detailed at the recent meeting of the British Medical Association. A preparation of thyroid gland was the only medicament given, so that the possibility of doubt was practically eliminated. In some cases the subjective improvement was immediate, and was soon followed by objective evidence of improvement. The inflammatory redness of the diseased areas diminished, and there was considerable desquamation. One patient was made worse; in two the treatment was followed by no benefit; and in one case a slight relapse took place. The question at once suggests itself that if this method of treatment prove ultimately successful in psoriasis, why should it not be applicable to other diseases of the skin as well.

Clinical Department.

INFLAMMATION OF UPPER AIR-PASSAGES AND EARS CAUSED BY INHALATION OF PERSIAN INSECT POWDER.

By WILLIAM PHILIP SPRATLING, M.D.,
NEW YORK.

My attention was recently called to a family of three persons suffering from marked nasal catarrh and sore throat. In one case the trouble, which had commenced in the nose and throat, had extended along the Eustachian tubes and caused painful swelling, that involved, first the left and subsequently the right, internal and middle ears. The trouble in all three cases began immediately after exposure to the fine dust of Persian insect powder that had been freely used about the premises for the purpose of destroying water-bugs and roaches. The first symptoms noticed were a feeling of roughness and discomfort in the throat, a constant irritation that provoked cough, and a sensation of fulness about the nose. One of the persons, a young girl of seventeen, who suffered from asthma in a mild form, suffered most from the immediate effects. Her asthmatic breathing, never so loud that it could be heard across a small room, became so greatly exaggerated as to be heard from any part of the house. In one of the other cases the trouble extended along the Eustachian tube and set up a violent inflammation that involved the left internal and middle ear, and later on the parts above the ear. The side of the face became swollen and tender to touch. Three days after the trouble had reached its height in the left ear, the right began to pass through the same process. This person had been troubled for some years with double chronic otitis media. The third person, immediately after inhaling the powder, experienced considerable irritation about the throat, and later on nasal catarrh, ringing in the ears, and considerable deafness. These symptoms lasted three days, when improvement began, and shortly ended in complete recovery. In the case in which the ears were inflamed, no improvement was manifest before the end of a week. Intense pain was constantly present, and nothing would in any degree relieve it, except morphia hypodermatically. Swelling occluded both auditory canals. I report these cases for the reason that the cause of the trouble is unique. Persian insect powder is made from a plant that grows in Europe and resembles the large white American daisy. The insect powder made from it is essentially a pollen; and it would seem a wise thing to caution such persons as those who are subject to hay fever, especially, against being in the immediate locality when it is being used.

70 WEST EIGHTY-EIGHTH STREET.

COMPLETE BURIAL OF A RING BENEATH THE SKIN OF THE FINGER.

By JAMES J. CONCANON, M.D.,
NEW YORK.

THIS curious case presented itself in my class at the Northwestern Dispensary, October 10th.

While treating a child, I observed that one of the fingers of her grandmother's right hand was considerably swollen around the first phalanx, a small point of granulation-tissue protruding about an inch from the knuckle.

Examination showed a narrow cicatrix extending around the finger, while a hard mass, suggestive of annular productive ostitis, could be felt beneath the skin. The uniform size and shape of the mass, as well as its very slight mobility, soon suggested what it was—an imbedded ring.

The woman (Mrs. K——, aged sixty) stated that it was a chased gold ring of the band pattern. She had put it on about nine months ago. When worn for a month, the surrounding tissues became swollen and sore. The ring was not removed, but at the end of another month

was completely imbedded and covered over by healthy skin, so that only a slight scar marked its site.

Apart from the slight œdema the finger is in good condition, there being no pain or impairment of joints. The case proved an interesting diagnostic study for the staff. The woman refuses to have the ring removed, as it gives her no trouble.

CEREBELLAR SYPHILOMA.

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SYPHILOMATA are rarely met with in the cerebellum, according to Gowers (vol. ii., p. 493). The following case may therefore be worthy of record, especially as the localizing was unusually clear, and as the results of treatment seem to establish the nature of the lesion.

Daniel M——, forty-four years of age, cabinetmaker, came to my office on September 1st, complaining of dizziness, occasional vomiting, unsteadiness in walking, double vision, and bilateral occipital headache. He also stated that he had "machinery" noises in the left ear, and thought that his left-hand grasp had become weaker. These symptoms had existed about a month, and were progressive.

His previous history was that of a sober, temperate man. He had "muscular rheumatism" at times, but never had acute articular attacks. He absolutely denied ever having had syphilis, but cross-examination disclosed the fact that fourteen years ago he had an "ulcerated" throat, and was informed that he needed medicine to "drive the disease out." When an eruption subsequently appeared upon his body, he assumed that the disease had come out, and discontinued treatment. He has never had a convulsion.

On examination, the scalp was not found to be sensitive to tapping or pressure. The watch could not be heard on contact with left ear. Both drumheads appeared to be normal. Tuning-fork heard best on unaffected side. Diplopia is manifest in the left eye, one image being below and to the left of the other, and nystagmus is evident. Dr. Leroy Pope Walker examined with the ophthalmoscope and found absolutely no sign of optic neuritis, blood-vessels normal in size, no tortuosity, no swelling of disks, outlines clear and distinct. Dr. Walker's further report is as follows: O. D., hyperopia = 1.50 D. with 0.75 D. vertical astigmatism. Vision uncorrected = $\frac{2}{10}$; with proper correction, V. = $\frac{20}{20}$ +. O. S., hyperopia = 2.50 D. with 0.75 D. vertical astigmatism. Vision uncorrected = $\frac{2}{200}$ +; with proper glasses, V. = $\frac{20}{30}$ +. Fields and color perception normal.

In standing, the patient keeps the feet widely separated, and has a tendency to fall toward the right side. On walking, he presents the characteristic titubating gait, and his reputation for sobriety has suffered thereby. There is no inco-ordination in the upper extremities, nor in the lower extremities when patient lies supine. The knee-jerks are exaggerated.

The diagnosis is therefore syphilitic neoplasm in left cerebellar hemisphere, with pressure on abducens and auditory nerves. The treatment ordered was iodide of potassium, grs. x. t.i.d., to be increased five grains every third day until grs. lx. t.i.d. had been taken. Five weeks later, patient reports that his dizziness, headache, and double sight have disappeared. He has resumed work and discarded his canes. There is still ataxia, nystagmus, and exaggerated knee-jerks. Dr. M. Allen Starr very kindly examined the patient for me to-day and confirmed the diagnosis.

29 EAST TWENTY-FOURTH STREET.

October 6, 1893.

Gelsemium for Lumbago —Ten drops of gelsemium every four hours will relieve the pains of lumbago.

Progress of Medical Science.

Insanity following Infectious Disease. — An abstract of the report made by Regis and Chevalier-Lavaure, presented to the *Congrès des médicins aliénistes des pays de langue française*, is to be found in the *Mercredi médical*, August 9, 1893. Insanity following infectious disease is a consequence, direct or indirect, of some special intoxication. In form it is a primary mental confusion, or a confusional insanity. Seglas sums up the concensus of contemporary opinion in the following: "Primary mental confusion is an expression of nervous prostration, and appears to have an individual etiology. Without absolutely rejecting predisposition, this factor often exists in a minimum degree, the exciting cause being in general the most powerful influence. The most frequent exciting causes of confusional insanity are trauma, moral or physical, accidental or surgical; infectious diseases, as puerperal fever, typhoid fever, cholera, grip, etc.; and disorders of nutrition." Infection or auto infection is in many cases the only possible assignable cause for the mental state, though at present its exact influence is unknown. On general principles, gastro-intestinal antisepsis, the regulation of different bodily functions, improvement of nutrition, and appropriate therapeutic measures, constitutes rational treatment, however diverse the mental troubles to which primary confusion may seem closely allied.

In confusional insanity there is a premonitory stage that may last several hours or several months. There is change in character, irritability, loss of sleep, and great anxiety. The onset is generally abrupt, accompanied by extreme excitement that suggests acute mania with complete unconsciousness of surroundings. Sometimes the onset is gradual, resembling in character a condition of subacute alcoholism. There may be a marked degree of stupor, with or without cataleptiform phenomena. The course of the disease may be continuous, remittent, or paroxysmal; but usually there is a mixture of excitement, calm, stupidity, and stupor, that varies in duration and often presents intervals of relative lucidity. Its duration varies, ranging from a few days to several months, and possibly several years. Thus it will be perceived that there are acute, subacute, and chronic cases. The termination of the disease is as follows: Recovery, preceded by a long or short stage of more or less psychic exhaustion, with complete loss of memory concerning the time and duration of the disease; recovery, with slight impairment of the mental faculties; chronic state of dementia, with periods of excitement and of stupor; death, following an acute or chronic course of the disease, and usually due to pneumonia, marasmus, or acute delirium. The pathological changes are states of anæmia, cerebral œdema, and meningeal abnormity, which prompts Willi to consider mental confusion a form of psychic disturbance that holds a middle ground between purely functional insanities, like mania, melancholia, and paranœa, and the insanities of organic changes. Meynert gives a long description of characteristic psychic manifestations. Attention, perception, apperception are weakened, resulting in loss of consciousness for time, place, and personalities. Language is often totally incomprehensible, and may or may not have reference to the patient's thoughts. Emotion is enfeebled, and follows the course of the disease. Ideas present themselves as in a dream, and may or may not be accompanied by hallucinations and delusions that do or do not influence conduct. Confusional insanity is more serious as regards prognosis than mania or melancholia. It is about as frequent as these two conditions. Heredity plays a less important part than in other mental diseases. Rachitis and all abnormal states that weaken the nervous system or the organism in general during the period of development, are factors of moment in the history of mental confusion. Meynert considers a powerful influence in its production

to arise from a defect of parallelism in the development of the nervous system and the development of the circulatory system.

Ununited Fracture in Children.—Dr. Power says ununited fractures of the long bones in children are rather uncommon. Of 150 cases of fracture reported by Norris, only 1 was found; of 484 cases reported by Gurit only 14 were found; of 685 cases reported by Agnew, only 28 were found. The author divides all cases of ununited fracture into three classes: 1, those fractures produced in utero or immediately after birth; 2, those produced by slight traumatism; 3, those resulting from osteotomies. Spontaneous fracture is very uncommon in children. An analysis of 72 cases showed there were 6 of the clavicle, 7 of the arm, 12 of the thigh, and 45 of the leg. In 21 cases there was subsequent consolidation; 4 were improved, and 45 remained ununited.

Anuria for Eleven Days, with Recovery.—Dr. Düring has reported a case of a man, sixty years of age, who had suffered for a number of years from gout and renal colic, the urine at times containing small calculi. On one occasion the man was seized with severe pain in the left loin and in the course of the left ureter. The testicle of the same side was retracted. A few drops of urine were passed from time to time at long intervals. There was also vomiting. From this time no urine was passed, despite the efforts of the patient. The bladder was found to be empty. Warm baths, douches, massage, and diuretics were employed, but without avail. On the third day uremic symptoms appeared: vomiting, eructations, somnolence, depression, restlessness, thirst, anorexia. In a short time copious diarrhœa set in. On the eighth day the man's condition became alarming, the uremic symptoms becoming more pronounced. This condition continued until the eleventh day, when, while straining at stool, a large amount of bloody urine was passed by the urethra. The urine was not preserved and a possible calculus could not be looked for. During the first ten or eleven hours between twelve and fifteen quarts of urine were passed. The threatening symptoms at once subsided, and in the course of forty-eight hours the patient felt as well as usual.—*Medical News.*

On the Treatment of Bronchiectasis.—Stewart says that while the generally accepted theory is, that bronchial dilatations are produced by the contraction of fibrous tissue in the lungs, that process does not explain many, and, indeed, the most typical examples of the disease. For bronchiectasis is often present when there is no cirrhosis, and in not a few cases the fibroid change follows upon it as a secondary consequence. Further observations have confirmed the views which he expressed twenty-six years ago, that an atrophic process in the walls of the bronchial tubes affords the real explanation, and that, given such an atrophy, the pressure of the air in the respiratory tract leads to dilatation of the tubes, while the consequent accumulation and decomposition of the mucus produce further changes characteristic of the disease. He has therefore endeavored to adopt treatment which would meet these conditions. Very little, however, can be done to prevent the occurrence of atrophy, nor, except by keeping down cough so far as that was warrantable, to interfere with the pressure of conditions which tend to dilate the weakened walls. The constant aim has been, therefore, to prevent the decomposition of the sputum and its consequences. Turpentine, creasote, carbolic acid, salol, and other antiseptics by the stomach, as well as sprays and vapors of various kinds, have all been sedulously tried with, on the whole, a very limited and temporary advantage. In one case during the past winter he had used an intratracheal injection of menthol (10 parts), guaiacol (2 parts), and olive-oil (88 parts), a drachm being injected into the trachea twice daily. The injections were given regularly for about a month, and then gradually less frequently, with the result that in a week the fetor of the breath and sputum had entirely gone. The temperature speedily fell to normal, the general symptoms disappeared, the weight increased, the appetite returned, and the digestive process became established, while the pulmonary signs had been favorably modified. Had this treatment failed Stewart proposed to try operative interference, and gives details of a case under his care several years ago in which such treatment was adopted with good result.—*British Medical Journal.*

Granular Lids.—In the *Archives d'Ophthalmologie*, April, 1893, Dr. A. Trousseau reviews the subject of surgical and mechanical treatment of granulations of the conjunctiva. Several questions are asked and answered concerning the methods of Davies and Abadie. Is the treatment dangerous? No; though serious accidents may follow. Is the treatment inconvenient? Certainly; its sequences last from four to six weeks, and the patient always does well to remain in the hospital for a month. Does treatment radically cure the granulations? Not in the most serious forms; in average cases, yes. Caustics and mechanical procedures must supplement this treatment in severe cases. Surgical treatment alone can secure recovery. It relieves the granulations, but does not cure at once. Without supplementary treatment relapses always occur. For average cases two methods are recommended: rubbing with pumice-stone dipped in sublimate, and rubbing with cotton dipped in the same solution. These may be alternated with the sulphate-of-copper treatment.

Sodium Bicarbonate in Large Doses.—In the *Revue générale de Clinique et de Thérapeutique*, March, 1893, is given some observations on what Huchard calls heroic alkaline treatment. This consists in the administration of two drachms to ten drachms daily of sodium bicarbonate, in successive doses, in conditions of hyperacidity of the stomach sometimes present in diabetes, in the gastric crises of tabes, in cardiac disease with acidity of the stomach, in diseases of the liver, and sometimes when gall-stones have formed. A case is recorded of incipient diabetic coma warded off by ten drachms daily of bicarbonate of soda.

Movable Kidney with Hydronephrosis.—In the *International Medical Magazine*, August, 1893, Dr. D. W. Graham gives the following conclusions as results of observation concerning this condition: Intermittent hydronephrosis is a frequent sequel of movable kidney. Mental disquietude may be the only symptom of a movable kidney or hydronephrosis. On the other hand, there may be functional disturbance of every neighboring organ. Disturbance of the function of the kidney may be less marked than that of the other organs. Hydronephrosis is a progressively destructive condition. Nephorrhaphy is indicated as a preventive measure even when not called for by the severity of the symptoms *per se*. Hydronephrosis once developed is most effectually and safely treated by lumbar nephrotomy and drainage. Nephrectomy is not warranted unless the kidney substance is completely destroyed or the ureter is impervious.

Growing Pains.—Karewski, of Berlin, has recently made a study of so-called growing pains, and finds that usually they have nothing whatever to do with growth. As a rule they are not seated in the bones, but about the muscles, and are similar to the pains of slight apyretic attacks of rheumatism. Such cases should be referred to their proper cause. Sometimes, however, in other cases there is a mild increase of temperature and more or less dull aching pain about the long bones. These occur in children who have been growing tall with undue rapidity. Karewski thinks that possibly active bodily exercise at this period has in some way irritated the epiphyseal lines of the long bones, and that this irritation has resulted in rapid proliferation and growth. When this condition is extreme, there is mild inflammatory action, with pain and abnormally rapid growth. Hence the natural inference that children have pain and fever not because they are growing too fast, but because they are really ill.

Extension of Gonorrhœal Infection in Women.—Dr. F. B. Robinson states that the course of the spread of gonorrhœa in women is mainly along the cylindrical epithelium. First, the gonococcus infects the urethra and the vulvo-vaginal glands; then the endometrium suffers, as it is cylindrical epithelium; next, the cylindrical epithelium of the endo-salpinx is involved; fourth, the germinal epithelium (cylindrical) of the ovary becomes affected; and, fifth, the gonorrhœal infection spreads into the membrane granulosa (cylindrical epithelium) and ovarian cystic degeneration occurs. It may require years to produce pus in an ovary from gonorrhœa. When the tubes are inflamed from gonorrhœa the patient gets better, but she does not entirely recover. There are recurrences of the inflammation, and the diseased tubes are best removed. Keating, who has an abstract of Robinson's paper in the *International Medical Magazine*, July, 1893, calls to mind the interesting fact that many cases of latent gonorrhœa in married women are rendered more acute and productive of future trouble by the pregnant state, thus accounting, probably, for cases of post-partum tubal disease.

Syphilis as an Infectious Disease.—The following views on syphilis, Dr. H. J. Klotz gives in the *Journal of Cutaneous and Genito-urinary Diseases*, August, 1893. Syphilis is caused by a micro-organism similar to those of the acute exanthemata. Primary and secondary local manifestations are due to the direct influence of this parasite. Its presence in these lesions is proved by their contagiousness. The general symptoms accompanying the stages and immunity are the result of the actions of toxines. The micro-organisms, under the influence of their own chemical products or under the influence of treatment, or in consequence of their own innate character, are either eliminated, or become extinct, or undergo some modification, or produce a new kind or species of micro-organism. This secondary parasite, which is similar to the bacillus of tuberculosis, can indefinitely remain in the organism, in a dormant condition, until called into activity by some accidental irritation. Accidental irritation produces the tertiary (gummatous) manifestations; but not the visceral affections, like tabes, general paralysis, etc., which are the result of intoxication with the toxines of the primary parasite. The secondary micro-organism is inoculable, like the bacillus tuberculosis, and produces lesions identical with the tertiary syphilis, but not primary syphilis. Tertiary syphilitic manifestations may, therefore, be due to direct inoculation without the necessity of a primary or a secondary stage.

Jaundice from Mental Emotion.—The existence of jaundice from mental perturbation was recognized by the older pathologists. Budd, in 1844, referred it to arrest of the secretion and retention of the bile in the blood. The theory of arrested secretion was abandoned when more correct notions of the physiology of the bile were acquired, and subsequently jaundice by nervous influence was ascribed to spasm of the bile-ducts; this, it was affirmed, might produce complete obstruction to the passage of the bile and consequent reabsorption. Frerichs, later on, recognized the occasional occurrence of this form of jaundice, which may appear very suddenly or in the course of a few hours after a violent mental emotion, as vexation, anger, fright, and he thinks that it may come about in two ways: 1. By interruptions to the circulation of the blood through the liver, arising from the influence exerted by the nerves over the calibre of the branches of the portal vein. 2. By interruptions to the heart's action, the respiratory movements, and the renal secretion.

Talamon, in a recent number of the *Médicine Moderne* (August 23, 1893), takes up the subject in connection with a remarkable case which had lately come under his observation, where a healthy woman, aged twenty-four, having had a severe fright, became intensely jaundiced after five hours. The icterus lasted twenty-four days. Talamon, in discussing the pathogeny of emotional jaundice, thinks that there are two objections to the current notion that it is due to spasm of the bile-ducts: 1, the suddenness of its production; and, 2, its persistence. With regard to the suddenness, there are cases on record where the jaundice has come on almost instantaneously. Villermé mentions a case where two young persons quarrelled and drew their swords; one of them suddenly became yellow, and the other, terrified at the change of color, dropped his weapon. The same writer relates another case of an abbé who suddenly became yellow on a mad dog rushing against him. Although statements of this nature may appear doubtful, still there are numerous observations which prove that under such circumstances as those alluded to, jaundice may be developed in a much shorter space of time than is wont to happen after the application of a ligature to the common bile-duct. The experiments of Tiedmann and Gmelin show that bile-pigment does not appear in the urine till forty eight hours after the ligation of the choledochus; those of Audigé, that resorption of bile is not effected under thirty-six hours. As to the persistence, it does not seem likely that a spasm of the bile-ducts can continue eight, ten, or fifteen days without relaxation. In Talamon's patient the urine was loaded with bile-pigment on the fifteenth day.

The theory of polycholia (Grisolle) does not alone explain the jaundice that follows mental perturbation, for the resorption is still to be accounted for. Talamon thinks that the principal element in the pathogeny of this form of jaundice is the disturbance through nervous shock of the hepatic cell whose secretory function is augmented, while at the same time it loses its property of retaining the bile which is formed, whence the immediate diffusion in the blood of the excess of bile secreted. This is, in fact, Liebermeister's explanation, who calls this emotional icterus a *cachectic* jaundice. In the normal state, he says, the liver-cells retain in their protoplasm the formed bile, a property which they lose in certain morbid conditions, leaving their product of secretion to diffuse itself through the blood as lymph. There is at the same time augmentation of the absorbent surface by reason of sudden paralytic dilatation of the hepatic capillaries. This, however, only in part explains the retention of the bile, and here Talamon assumes the existence of disordered contractions of the bile-ducts extending to the choledochus. This only partially interrupts the passage of bile into the intestine, for the spasm is not continuous, and there are periods when the bile passes freely, as when the stools are deeply colored. In the case which he reports, this fact is strikingly apparent in the clinical record; the stools were clay-colored one day, and bilious the next, etc. This is in accordance with the observations of Labadie-Lagrave, who has recently published a very complete treatise on "Diseases of the Liver." This kind of jaundice is clearly differentiated from most of the other varieties by the fact that the stools are not invariably and continuously decolorized. In a recent case of emotional icterus observed by Chauffard, the patient, after intense excitement, became jaundiced in the space of an hour; during the first five days the choledochus remained permeable, and the stools were colored and soft; the decolorization did not appear till subsequently. Labadie-Lagrave rejects the theory of spasm for these reasons, and also because histological investigation proves that the bile-ducts are very poorly provided with unstriped muscular fibres; faradization cannot efface the calibre of these ducts through their muscular fibres. He believes, with Chauffard, that if in this kind of jaundice there is any obstruction of the choledochus, this results from thickening of the bile, or from epithelial desquamation, as in simple catarrhal jaundice. It must be admitted that the mechanism of emotional icterus is not yet completely elucidated.—*The Boston Medical and Surgical Journal.*

The Operative Treatment of Peritoneal Tuberculosis.—The value of operation in the treatment of peritoneal tuberculosis in children has been much disputed, and even yet is by no means generally allowed. The nume-

rous cases benefited by laparotomy have been challenged as to correctness of diagnosis and the indications which predict a favorable result not thoroughly understood. The report by Conitzer of seven cases operated upon for tuberculosis of the peritoneum throws some light upon the points in dispute. The children varied from two and a quarter to nine years of age. Four cases were of the exudative form, in which there was a diffuse superficial inflammation of the peritoneum, with numerous very small tubercles upon the parietal and visceral membrane, and free serous fluid in the abdominal cavity. In all of these cases there was but slight disturbance of the general health. Some anorexia and heaviness and disinclination to move about were the chief symptoms. Some of the patients, too, had gray-colored stools, though not otherwise icteric. The other three cases were of the dry adhesive form, in which there was more general disturbance and often pain, and a considerable degree of matting together of the intestines and omentum. The operation consisted only of an incision into the abdomen, and, after allowing the free fluid to escape, closing up of the wound. No washing or manipulation of the cavity was done in any case. The four exudative cases all made a lasting recovery. In each microscopic examination of the tissue showed characteristic tubercular structure, giant-cells, and in two cases the presence of bacilli. The three other cases all showed caseous tubercular nodules with bacilli. One case recovered from the operation, and after four and a half months was still relieved from much of the pain and discomfort, though not at all well. The other two cases died with little or no relief.

After discussing these cases in detail he draws the following conclusions: 1. Peritoneal tuberculosis is spontaneously curable: the dry form in very few, the exudative form in a very large number of cases. 2. All forms may be cured or at least relieved by laparotomy, even when other treatment, including puncture, has failed. 3. The results of the operation depend upon (*a*) the form of the disease, the best results being obtained in the cases of effusion; (*b*) the duration of illness; (*c*) eventual complication. 4. The operation is contra-indicated in advanced cases or those with marked tuberculosis of other organs. 5. No explanation can be given of the reason or manner of the curative effect.—*Boston Medical and Surgical Journal.*

A British View of Germs.—According to the *Medical Press*, it seems that nothing less thorough than total abstention from food and drink can protect us from the imbibition of disease germs, inasmuch as there is not an article of daily consumption which will not harbor and propagate the bacilli in greater or less number. We cannot even eat a cabbage or other vegetable in the comfortable assurance that we are safe from infection, for it has recently been shown by Lominsky that the specific organizers of anthrax and typhoid and the staphyloccus pyogenes can exist for more than eighty days and multiply in plant tissues. After all, is not the germ craze getting rather wearisome? Is it worth while to trouble ourselves about 100 or 1,000 bacilli in a cabbage, when we know that we live from morning to night in a more or less thick fog of germs of all sorts?

Dangers Following Total Extirpation of the Uterus per Vaginam.—Dr. Jessett has pointed out the dangers following total extirpation of the uterus by the vaginal method. 1. Intestinal obstruction has occurred in several instances after vaginal hysterectomy, the result of adhesions of a loop of intestine to the edges of the wound through which the removal of the uterus was accomplished, causing distention and bending of the gut above the point of adhesion. All of the cases reported have proved fatal; in each, death appeared to be due primarily to exhaustion. 2. A second source of danger is met with chiefly in those cases in which the disease has extended somewhat laterally, from the risk of either dividing the ureters, or including them in the ligature, or forceps applied to the broad ligament to arrest hemorrhage. Several such cases are recorded. 3. Vesico-vaginal, or recto-vaginal, fistulæ are by no means so rare as might be supposed, after total extirpation of the uterus. Vesico-vaginal fistulæ are especially liable to occur in those cases in which the disease is somewhat extensive and the pelvis contracted, necessitating considerable force to enucleate the uterus. Often the opening is so high up that it is difficult to locate the exact seat of the urinary fistula, and in these cases the hope of closing the fistula must be very small. 4. Another source of danger is peritonitis, especially in those cases in which the parts are of necessity much dragged and torn. 5. Sepsis is answerable for many of the fatal cases. 6. Lastly, severe and even alarming hemorrhage often takes place.

Surgical Treatment of Fioroid Tumors.— Martin (*American Gynecological Journal*, May, 1893) groups the surgical procedures for the relief of fibroid tumors of the uterus under the following heads: 1. Removal of the ovaries to establish an early menopause. 2. Removal of the tumor per vaginam. 3. Removal of the tumor through an abdominal incision; (*a*) removal of the tumor without the uterus; (*b*) removal of the tumor with the uterus. The first method is adapted to that class of medium or small tumors where the growth is slow and the tumor is hard and symmetrical, and there is menorrhagia without metrorrhagia. Removal through the vagina can only be done when the tumor is not larger than a hen's egg. Unless the tumors are small and pedunculated, the operation is as liable to prove fatal as removal of the uterus; and if the tumors are large and more or less incorporated with the uterine walls, their removal leaves the uterus in an abnormal and mutilated condition, and should a portion of tumor be left it would continue to grow. As regards removal through abdominal incision, only occasionally is a tumor so situated that it can be removed separate from the uterus. The great majority of the cases require removal of the uterus together with the fibroid mass. Martin prefers in favorable cases to retain the cervix and treat the stump intra-peritoneally, because a stronger pelvic floor results, and the vagina is left in a better condition than if the cervix had been removed. Fixation of the stump in the abdominal wound is objectionable, as free dilatation of the bladder is thus interfered with and convalescence is prolonged. The author does not favor Byford's method.

Coma after Operation for Epilepsy.—The following case is related by Dr. Tiling. A youth aged seventeen had an epileptic attack eight days after an accident in which the lower part of his thigh was injured by a gunshot wound. After that there was a daily recurrence of the fits. Two operations were done. The first on the wound and the second for an abscess in the cicatrix. After the first operation the fits ceased for a brief period, and after the second operation for a year; but the fits returned, being accompanied by pain in the cicatrix, and a third operation was performed. This consisted in extirpation of the scar and excision of a piece of the thickened small saphenous nerve, and stretching of the sciatic and anterior cervical nerves. The curious thing about the case is that the patient did not awake from the narcosis, but remained comatose, being able to swallow, but unable to pass urine, which was drawn off. For twenty-four days he remained in this state, and five days later he was quite himself again, and the attacks have not recurred. A considerable difference of opinion was expressed in the discussion on the case, which was communicated to a medical society in St. Petersburg. It was regarded by some as a case of meningitis, while others argued the absence of signs of irritation and of paralysis as tending to disprove such a view.—*Neurologisches Centralblatt.*

The Diagnosis of Cholera.—Dr. G. Sherman Bigg, formerly Staff Surgeon, Allahabad, India, writes to the *Lancet* as follows: "The recognition of the fact that the presence or detection of the cholera bacillus is not a constant factor, reduces the diagnosis of cholera to that of an

ordinary disease. This result is a practical advantage, for bacteriological investigation, except as an aid in doubtful diagnosis, could not be relied upon to verify a disease in times of an epidemic. Furthermore, the diagnosis of cholera is exceedingly simple, for if there is one disease more than another in which the symptoms are characteristic of the complaint, that disease is essentially cholera. The very expression of the face invariably suffices to declare the true nature of the illness; but, coupled with the whispering voice, the violent cramps, the absence (not suppression) of urine, and the agonizing appeal for a long drink, a mistaken diagnosis is highly improbable. Cholera, when once seen, can never be forgotten (Dr. Fenwick), and if, instead of surrounding the disease with a halo of mystery, the simple method of relying for a diagnosis on the appreciation of the collective symptoms were adopted, an error of judgment would be rare, and medical men who have not had the opportunity of seeing a case of cholera would be ready to recognize the complaint with facility."

The Treatment of Obstruction of the Large Intestine by Temporary Typhlotomy.—Dr. Harrison Cripps remarks that unless the obstruction can be felt in the rectum, or some definite tumor be discovered in the abdomen, its exact site in the large gut cannot be determined. He advises in the first instance careful injections, with the view of possibly washing away an obstructing plug. If these fail to give relief, abdominal section is the last resort, the author recommending that in the first instance the incision should be made in the left inguinal region, between the umbilicus and the anterior superior spine. He related to the Harveian Society of London two cases in detail, in which he had found, after making the abdominal incision on the left side, that the sigmoid and descending colon were empty and collapsed. In each of these cases he closed the wound and opened the abdominal cavity on the right side over the cæcum. The parietal peritoneum was carefully stitched to the portion of the bowel in such a way that only a circular portion of the cæcum, no bigger than a dime, was exposed; through this an opening was made which gave immediate relief to a large quantity of air and liquid fæces. In both cases, after nine and thirteen days respectively, the stools appeared in the natural way, and in both the cæcal fistula was subsequently closed. The author advocates temporary typhlotomy in all cases where the obstruction proves to be above the descending colon, and, moreover, advises that the opening in the cæcum in the first instance be quite small, so that it may be easily closed should the obstruction subsequently give way and the stools pass through the normal channel.—*Annals of Surgery*.

Observations on Trional and Tetronal.—Drs. Rarmindi and Marioffini have been making some investigations upon trional and tetronal as hypnotics. Trional is chemically diethylsulphomethylethylmethane. It is a crystalline powder, fusing at 76° C., is soluble in cold water, but is more soluble in hot water and alcohol; it has a slightly bitter taste. Tetronal is diethylsulphodimethylmethane; it crystallizes in white flakes and is fusible at 86° C. It is soluble in water at the ordinary temperature, but it is more soluble in hot water and alcohol; it has a very bitter taste and an odor somewhat like camphor. As regards the clinical action of these bodies the investigators came to the following conclusions (*The Lancet*): 1. Trional and tetronal are hypnotics with an action similar to that of sulphonal; they act on the cortex of the brain. 2. One half or two thirds of a dose of trional or tetronal, respectively, produces the same hypnotic effect as a full dose of sulphonal. Both of the drugs were found to be successful after sulphonal had failed, but trional acted better than tetronal. 3. The general action of the ethyl group in producing hypnosis could be easily recognized, but at the same time an increase was noticed in the toxic action of these bodies in the following order: firstly, sulphonal; secondly, trional; thirdly, tetronal—in the proportions of 1, 1, and 3, respectively. 4. In small doses, neither trional nor tetronal produced any diaphoresis, nor did they have any effect on the temperature of the patient; sleep and respiration appeared to be normal. 5. As with morphia, a certain tolerance of the drug was soon established, and it was found to be necessary to gradually increase the dose of the drug in order to maintain its hypnotic effects. 6. There was a slight accumulative action, and toxic phenomena occasionally occurred. 7. The secondary symptoms of intoxication were the same as those of sulphonal—namely, prolonged somnolence, headache, a sensation of tension in the head, and in the early stages of inco-ordination of movement and ataxic debility. These phenomena were especially noticed after the prolonged use of tetronal in rather large doses. They ceased soon after the drug had been discontinued. 8. The ordinary therapeutic dose is from ten to thirty grains. When the use of the hypnotic requires to be prolonged—as, for instance, in the case of the insane—it is better not to employ tetronal, but trional or sulphonal. 9. The quantity of trional for a single dose varies from ten to forty-five grains, according to the age, sex, etc., of the patient. If a prompt effect is desired, it is advisable to administer the dose suspended in mucilage or milk, and to have the mixture warmed. Both trional and tetronal should be given at bedtime, and not some hours before, as is necessary with sulphonal.

Olive Oil for Lead Colic.—The *Gazette Médicale de Paris*, September 23, 1893, contains Combemale's report of cases of lead-poisoning treated medically by large doses of olive oil. For attacks of colic, oil was given by the tumblerful with most gratifying results. Sixty grammes of olive oil a day were administered in chronic lead-poisoning, with a resulting diminution in the tremor, in the difficulty of standing and walking, and all the nervous symptoms. The observer states that it is impossible to say just how olive-oil acts upon lead. The fact remains that doses of two hundred grammes will cure lead colic, and daily doses of sixty grammes will relieve many of the most distressing manifestations of plumbism.

The Joints in Osteo-arthritis.—The changes in the joints in osteo arthritis are described in the "American Text-book of Surgery." The articular cartilages are first affected. There occurs a fibrillary degeneration of the intercellular substance, with abundant new-growth of cartilage cells, and soon a breaking down and a disappearance of both, leaving the surface eroded and velvety; or, less often, smoothed and thinned. By pressure of the adjoining bone marked central thinning is produced. Later there is complete disappearance of the cartilage and exposure of the bone. This in turn wastes away, with resulting changes in its shape. While the central part of the articular surface is gradually wearing away, the peripheral portion is increasing in thickness, and grows into lips hanging over the edge. This increase of substance partly or wholly ossifies. The synovial fringes enlarge, new ones form, and outgrowths are developed. The original cartilage cells of the membrane proliferate greatly. Adhesions of the adjacent sides of the fringes take place. The capsule and ligaments, at first only congested and œdematous, after a time usually undergo degeneration, adhesions and contractions forming later. Occasionally, instead of becoming harder, they soften and permit undue movement of the joint. The irritated periosteum over the end of the affected bone throws out new bone, the osteophites at times being numerous and of considerable length. The interior of the joint is generally dry; it may, however, contain fluid in large quantity. Muscular atrophy occurs early. The tendons passing over the joint may harden and contract, may ossify, or become detached from the bone, or soften and disappear. As results of these various processes, deformity and restriction of movement follow in due time, though it

may take years for the arthritic changes to develop to this degree. Suppuration does not take place either in or about the joint, except in rare instances. In osteo-arthritis is found the one great exception to the rule of securing rest to a diseased joint. Immobilization is not indicated. Except in an acute attack, when pain is constantly present, active and passive movements of the joints must be kept as long and freely as possible. An inactive life, with its absence of fresh air and exercise, is the worst possible condition for anyone suffering from osteo arthritis. Want of exercise intensifies all the symptoms. Much sunlight is needed to keep the patient in relative health, and the best climate is one that is dry, equable, and warm.

Gout and Calomel.—In the *Journal de Médecine de Paris*, June 11, 1893, an account is given of F. Grimm's method of treating acute attacks of gout, and irregular and subacute gouty conditions with calomel in broken doses, until slight colic indicates the imminent purgative influence of the drug. When this slight colic begins, there is a sudden quieting of all the gouty symptoms. Pain is lessened, swelling, tenderness, and redness rapidly diminish, and in two or three days the patient is able to walk about. Sometimes good results are not so rapid. The same improvement follows, however, even if more slowly. Especially when constipation is a feature of the gouty condition is calomel valuable in breaking up the attack.

The Influence of Chloroform upon the Course of Normal Labor, as Shown by the Tachadynamometer.—Dr. Donhoff administered chloroform in various degrees to five cases of normal labor, and noticed its influence upon the expulsive force of the uterus and abdominal muscles, as shown by a carefully constructed physiological apparatus. The conclusions reached are in substance the following: 1. The administration of chloroform, even in diminutive doses, exercises a retarding influence upon the progress of labor. The muscular pressure sinks to one-half of the amount of that present before the administration of the anæsthetic. In eight observations the average figures were 1,837. 2. The expulsive force of the uterine contractions steadily diminishes during the exhibition of chloroform. 3. The labor pains, besides being weaker, are also more irregular during a slight anæsthesia. During deep anæsthesia the intervals between the pains are longer and all the pains are diminished in strength. 4. The pains increase immediately after discontinuing the anæsthetic. 5. The labor pains generally continue diminished in power for some time after discontinuing the chloroform. In one case they had resumed their normal intensity in ten minutes, while in two other cases two hours had expired. 6. If the action of the abdominal muscles is only slight, this action is checked entirely by a superficial anæsthesia, but soon reappears after the stopping of the chloroform. 7. The action of the abdominal muscles continues, but in diminished force, during superficial anæsthesia, if before the exhibition of the chloroform it was vigorous in character. 8. Deep anæsthesia abolishes entirely the action of the voluntary muscles. 9. The intervals between the pains become longer immediately after chloroform is administered, and the labor pains, besides being less intense, decrease in numbers about twenty-five per cent. These carefully conducted experiments show that chloroform, no matter in what degree it is administered, exercises a retarding influence upon the progress of labor. The expulsive forces are lessened, and there is no corresponding diminution of the resistance—*Medical Review.*

Treatment of Syphilis by Simple Application of Mercurial Ointment.—Dr. Welander finds simple application of gray salve to be as efficacious in the treatment of syphilis as inunction. In thirty cases where it was tried the various symptoms disappeared fully as quickly as with a carefully carried out treatment by inunction. Among these were four pregnant women with pronounced symptoms of secondary syphilis, and all these went on to labor at full term—a good proof of the efficacy of this method. Examination of the urine demonstrated that mercury was excreted by the kidneys. The procedure is very simple. Each evening on going to bed one and a half drachm of the ointment are spread on a portion of the body by means of a knife or spatula, and covered with a piece of linen. The patient keeps himself warmly covered in bed, yet not too warm, for profuse perspiration would rather hinder than favor absorption. The next morning the salve is washed off and a warm bath of ten to fifteen minutes' duration is taken. In this way the treatment is continued every evening, another portion of the body being chosen, as in inunctions. Of course requisite care of the mouth must be observed. This method is much simpler than inunctions, and does not irritate the skin. He thinks that the salve containing more mercury could be employed, as, for example, Ziemssen's, which consists of two parts of mercury and one of pure fat.—*The Cincinnati Lancet-Clinic.*

Opium and Bromide for Epilepsy.—Opium associated with bromide is advocated by Flechsig in the *Neurologisches Centralblat*, No. 7, 1893, as superior to bromide alone. Pills of powdered opium are given two or three times a day, the strength of the dose being gradually increased during a period of six weeks, when the drug is abruptly dropped and replaced by large doses of bromide of potassium. The large doses of potassium are continued for two months. Then they are gradually reduced to a daily portion of two grammes. The opium has a preparatory effect, facilitating and strengthening the action of the bromide. During the opium period of treatment the only amelioration is a temporary suspension of the attacks, or a decrease in their frequency. Two cases are recorded of complete cure by this method, when all other known remedies had failed.

Affections of the Testicle in Hereditary Syphilis.—Dr. Carpenter passes in review much that has been written upon this interesting subject, and relates many interesting cases, which will aid future investigators in the solution of the difficulties surrounding it. In summing up the present state of knowledge it would appear that, 1. The testicles may be affected so slightly in congenital syphilis that it needs the microscope to detect the malady. 2. In a certain small percentage of cases of congenital syphilis the lesions of the testicle are such that they can be detected by physical examination. These lesions may be present at birth, arise soon after, or make their appearance some months or years afterward. The general rule, however, seems to be from birth up to two or three years, not often much after this time, and very rarely indeed at puberty. Fournier's case of twenty-four years seems to be the present extreme limit. Syphilitic orchitis may, as has been before remarked, arise when the patient is apparently thoroughly under the influence of mercury, but in this latter respect it does not differ from other syphilitic manifestations. 3. The globe is, more often than not, alone affected, but, not infrequently the globe and epididymis suffer together, and quite exceptionally the epididymis is attacked singly. It appears from Bumstead and Taylor, that the cord may suffer, and in one of Obédénaro's cases it was as thick as a child's thumb. The vas, vesiculæ seminales, and prostate are not attacked: at least so far there has been no record of such a complication. 4. The disease is very frequently, but not invariably, bilateral in its distribution, though one side may be more advanced in pathological changes than the other. 5. Hydrocele of the tunica vaginalis is not such an infrequent accompaniment of the malady as some writers would have us believe, and it may be, in young infants, the earliest indication that there is something wrong with the testicles. In all probability, as time goes on, the fluid is reabsorbed, and then the condition of the gland itself becomes more marked. 6. There is just a possibility that hydrocele of the cord may, in some instances, owe its origin to congenital syphilis. 7. The

swelling of the testicle is a painless one, it feels like scirrhus; it may, or may not, be nodular, the latter for the most part, and a fungus testis is sometimes seen. 8. The enlargement of the affected organ is usually not great, and in fact there may be none at all, it being a very rare occurrence indeed to find in infants and children a testicle the size of an egg. 9. In the large majority of instances the microscopical appearance is that of the simple inflammatory form, passing on to the development of fibrous tissue with consequent destruction of the gland, leading possibly, if not attacked in time by suitable remedies, to impotence and sterility. Certain atrophied organs may be accounted for in this manner. A scrotum, of natural or almost natural dimensions, containing an atrophied organ, the vas, seminal vesicles, and prostate being free, with marks of congenital syphilis on the person, in the shape of scars on the buttocks, fissures round the mouth, characteristic teeth and physiognomy, specific eye troubles, or what not, would suggest such a causation. The inflammatory form is akin to that observed in the liver. Gummata, on the other hand, are rare manifestations.—*Journal of Cutaneous and Genito-urinary Diseases.*

Renal Tuberculosis.—Dr. Tuffier points out that in addition to hydronephrosis of tuberculous origin, there is also a variety of renal tuberculosis characterized by paroxysmal pain indistinguishable from that of nephritic colic, without detectable enlargement of the kidney and without pyuria or hæmaturia, although it may be possible to find tubercle bacilli in the urine. Besides this form of renal tuberculosis there is another, characterized by the occurrence of hæmaturia, and corresponding to the form of pulmonary tuberculosis attended with hæmoptysis. A case is reported in a woman, forty-two years of age, of good family and personal history, who in September, 1888, after a long walk, not especially attended with fatigue, was suddenly seized with hæmaturia. There was no pain, but a sense of burning referred to the bladder. The urine soon resumed its normal appearance. Thereafter, the hæmaturia was repeated from time to time, after intervals of varying duration in which the urine appeared quite normal. The woman became extremely anæmic, almost cachectic in appearance, and weakness became marked. The urine examined in an interval between two attacks presented no abnormality. The physical examination was facilitated by the marked emaciation, but it was not possible to detect any enlargement or lesion of kidney, ureter, or bladder. The manipulation was unattended with pain. The patient at this time would not submit to a cystoscopic examination. Examination of heart, lungs, and other viscera failed to disclose the existence of organic disease. Upon the strength of the evidence it was concluded that there must be a neoplasm of the kidney or of the bladder, the character of the hæmaturia pointing to the bladder. Accordingly the bladder was opened through a hypogastric incision and explored, but no lesion was found. The wound of operation closed readily and without untoward event; but after the lapse of two months there developed in the course of the cicatrix a small spot of fungous ulceration, of the tuberculous nature of which there was no doubt. Shortly afterward hæmaturia recurred, and now a diagnosis of renal tuberculosis was ventured. The right kidney appeared to be a little the larger, but the left was slightly painful. Cystoscopic examination yielded a negative result; for the patient was greatly agitated and, perhaps as a result of spasm, not a drop of blood escaped from either ureter during a period of ten minutes. A second examination, however, showed clearly that the blood came through the left ureter, while the secretion of the right kidney appeared to be normal. In view of the gravity of the situation it was determined to operate at once, and incise and scrape the kidney or excise it, according to the conditions found. No change was found in the tissues surrounding the kidney. The organ itself was not enlarged, but within its parenchyma several fluctuating areas of softening were found. No enlargement of adjacent lymphatic glands was detected. The organ was removed. There was no surgical complication, and five weeks after the operation the patient appeared to be perfectly well. Tubercle bacilli were found in the contents of the abscesses. There was, however, no communication with pelvis or ureter.—*The American Journal of the Medical Sciences.*

The Knee-jerk.—Dr. Sherrington has contributed to the proceedings of the Royal Society a paper in reference to this much-discussed phenomenon. The same observer recently pointed out that the muscular part of the mechanism consists of the vastus internus and part of the crureus division of the quadriceps extensor of the thigh. In the Rhesus monkey the spinal centre was found to lie in the fifth and fourth lumbar segments of the cord, corresponding to the fourth and third in man (*The Lancet*). The efferent path was found to lie in the fifth and fourth lumbar nerves, and was traceable in the anterior crural nerve to the muscles in question, while the afferent path was found to lie in the posterior root of the fifth lumbar, and possibly to a small extent also in the fourth lumbar root. This fifth posterior root runs in fibres from the obturator nerve, the anterior crural, the external and internal popliteal nerves, and also from the branch of the sciatic nerve distributed to the hamstring muscles, conveniently named the "hamstring nerve;" but of all these fibres only those from the anterior crural nerve from the afferent path on which the jerk depends, and in the anterior crural nerve only those fibres which issue from the vastus internus and the crureus muscles. Various methods were resorted to in order to test the conductivity of this root, *e.g.*, severance, partial or complete, and cooling by the indirect application of ice and salt, by carbonic acid vapor and the application of cocaine; and by lowering the conductivity of the posterior root by such means, it was found that the knee-jerk could be abolished, even if conductivity was not impaired, to such an extent as to make the transmission of skin impulses impossible. Thus, merely lifting the posterior root by a thread will often suffice to prevent the jerk from being obtained, while the afferents of tactile sense are not obviously impaired in their function. Dr. Sherrington also found that excitation of the central end of the divided hamstring nerve at once abolished or greatly reduced the briskness of the jerk. In the paper already alluded to he had pointed out that the jerk could be rendered brisk by section of afferent or efferent spinal roots, immediately below those on which the jerk itself depended. The explanation then offered was that it depended on the fact that the tone of the hamstring muscles was abolished by section of the afferent roots belonging to them. By a series of ingenious experiments this explanation is confirmed and expanded. The fact was pointed out by Tschiriew that severance of the great sciatic nerve produces increased briskness of the jerk, and this Dr. Sherrington finds to depend upon the section of that part of the sciatic nerve which he has called the hamstring nerve; from the experiments already alluded to he thinks it clear that this exaggeration is not the result simply of muscular relaxation, leaving the joint mechanically free to move, but of an interruption of a stream of centripetal impulses passing up from the hamstring muscles and exerting a depressing or restraining influence upon the jerk. He also finds that a stream of impulses, similarly efficient, can be set up by stimulation of the central ends of the divided nerves of the hamstring muscles, or by simply stretching or kneading the muscles when they are released from one of their fixed points, or, finally, by throwing the muscles into contraction by excitation of motor roots supplying them, so long as the sensory roots remain intact.

Chorea Cured by Cerebrin.—A case of chorea associated with rheumatism is reported by Montagnon, in the *Lyon Médical*, September 17, 1893, as cured within thirty days by injections of cerebrin. A twenty per cent. solution was used at first, and then a ten per cent. solution.

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PUBLIC HEALTH BILL OF THE ACADEMY OF MEDICINE.

THE Quarantine Committee of the Academy of Medicine has completed its draft of a Public Health Bill, and in our columns of this week we give the full text. It is the outcome of an exhaustive examination of all of the health bills heretofore introduced into Congress, of the laws at present in existence, and of the health laws of other countries. We may add that, as the Committee extensively circulated tentative drafts of the bill and invited criticisms and suggestions from the ablest sanitarians in this country, large numbers of whom responded, the bill embodies the best thought and experience of the practical laborers in the field of preventive medicine.

In referring to the more important features of the bill, we may premise that it is quite impossible for any committee to draft a measure, susceptible of so many modifications in details, which will meet universal assent. It was in this view that the Committee very wisely determined to submit a first draft to public criticism and thus obtain every diverse opinion possible, in the hope that in the final draft it could harmonize conflicting ideas, and concentrate on one measure the united support of every person and organization interested in the proposed legislation.

The provisions of the bill which are most susceptible of criticism we shall briefly notice.

1. The bill creates a Bureau of Public Health in the Treasury Department, instead of an independent Department of Public Health. To those familiar with the history of the public service of the General Government there is a manifest necessity of organizing a new branch within a department most likely to aid it in the performance of its special duties. It is quite impossible to create a new and full-fledged Department. There must first be a demonstration of the value and necessity of the special service undertaken before any consideration will be given by Congress to a proposition to make a new Department The Treasury Department has, from the origin of our government, been intimately associated with quarantine and the health of sailors through its Custom House officers and the Marine Hospital Service. It is thereby especially adapted to foster that branch of a public-health service devoted to the regulation and supervision of a maritime quarantine. The relation of the Treasury Department to interstate commerce equally adapts it to aid in the development and practical enforcement of a permanent system of sanitary regulations which will prevent the spread of contagious and infectious diseases from one State to another.

2. The Bureau is placed under the control of a commission instead of a single officer. The importance of this feature of the bill will appear if we consider the nature of the duties that devolve upon the Bureau. These duties are legislative, executive, and judicial. It must make the rules and regulations which shall hereafter govern maritime and interstate travel and commerce; and those rules and regulations, when approved by the Secretary of the Treasury, will have the force of law. It must execute largely its own rules and regulations at foreign seaports, on the sea, and at our own seaports and throughout the United States. Finally, it must interpret its own acts judicially, and sit in judgment upon the acts of other health officers. These are duties which cannot safely be intrusted to a single individual, however great his abilities or enlarged his experience.

3. In providing a suitable commission, the Committee has happily conformed to the genius of our Government, and made it a representative body. The members represent, not States, but sanitary districts, which have been very judiciously grouped so that the public health interests of every section are properly represented. The Committee seem to us to have devised far the best method of creating a central health authority yet proposed. Representation by States, sometimes suggested, would have involved a large and unwieldy body. And even this end is attained, as far as it may be desirable, by the power given to invite the State Boards of Health to send representatives to meet the commission in conference as often as the interests of the service may require.

4. The provision for an executive committee, which by the location of its members will practically be in continuous session, is an important feature of the bill. As in the case of the head of the Bureau, a commission is far preferable to a single officer, so an executive committee is preferable to a single executive officer, when the members of that committee are experienced men and can meet at a few moments' notice. Most of the questions which the executive committee are called upon to decide should not be left to the judgment of one person, but require for their proper determination the careful consideration of a council of experts.

5. The composition of the commission is eminently judicious. The representatives from the sanitary districts are to be medical sanitarians, and as they are to be nine in number they form the majority of the commission, and hence are the foundation on which it rests. The terms of service of these members are so classified that one-third retire annually, thus giving continuity to the service. The two members appointed at large are not necessarily medical men, and their terms of service are lengthened to six years, but one retires every three years. As one of these members must be the president of the commission, the arrangement seems well adapted to preserve the organization and work of the commission from any sudden or radical changes.

We need not discuss the details of the bill. Its more important provisions are already the law under which the Treasury Department performs its health functions. The new sections are chiefly derived from bills which have already been before Congress, and are essential to the perfection of the measure.

Whatever may be the final result of the labors of the Committee, the Academy of Medicine is certainly entitled to the highest commendation for its effort to secure an adequate public health administration in the General Government. How far the Academy will succeed in this undertaking time alone will determine, but it is to be hoped that not only all factious opposition will be withheld, but that the Committee, which is acting with full power, will receive the prompt and cordial support of medical societies, State and municipal health authorities and boards of trade, in its further efforts to obtain the enactment of this measure by Congress.

MORE MILLIONS FOR OUR HOSPITALS.

To them that have it shall be given. Neither the New York Hospital nor the Presbyterian are in distressing need of money, yet by the will of the late Charles B. Beck, each will receive about $900,000. New York's reputation for being the city of magnificent and many-millioned hospitals, is not likely to decline. Yet how much more really urgent is the need in this community of money for our medical educational institutions. Our undergraduate colleges are still behind Philadelphia, Boston, and Baltimore in the standard set for medical students, though this will, we trust, not long be the case. The two hospitals which have just been so handsomely remembered do not contribute much to our educational work, not being attached to any colleges.

HOMICIDAL CRANKS.

The recent shocking murder of Mayor Harrison calls attention again to the danger to which society is subjected by the half-mad. We cannot pretend to give a complete list of the assassinations and attempted assassinations of public men in this country and Europe during the past ten or twelve years. But our readers will recall the murder of Garfield, by Guiteau, the attempted murder of Frick, by a Jewish anarchist, the dynamiting of Russell Sage by Norcross, and the attempted shooting of the Rev. Dr. Hall. All these crimes were done by men of a somewhat similar character, and all suffered from a somewhat similar form of mental and moral perversion. The name which science gives to their malady is paranoia persecutoria. It is not, however, so much a real disease as it is an inherent defect in the structure of the brain.

This defect exists in many, but it is overcome and controlled by education and training. In the homicidal paranoiac natural defects and natural bad propensities are increased by bad habits of life and thought. For example, by the over-indulgence in alcohol, tobacco, and excitable haranguing, a man who has simply exaggerated political views becomes a political criminal or a murderer.

The question naturally arises whether the homicidal paranoiac has come with us to stay and to increase in numbers and activity. Already it is necessary for public men to exercise care in admitting people to audience, and the life of the American millionaire, or high political functionary, is perhaps already quite as uneasy as that of the Czar of Russia.

We see no immediate prospect of relief from this condition of things. Certainly lynching will do no good, though so strongly recommended by many. Whether such people should be hanged is a question to be decided in each individual case. In some instances it is surely necessary and helpful, even if from our stand-point it seems cruel. But cranks and paranoiacs will not be suppressed by hanging, because they often love notoriety more than they fear death, or are impelled to their act by a morbid instinct which no prospect of future punishment can suppress.

The paranoiac is the result of bad breeding, and he will flourish as long as neurotic people intermarry and give birth to children whose morbid tendencies are allowed to develop. To prevent the increase of the paranoiacs we need good fathers and mothers.

ENGLISH AND AMERICAN DOCTORS.

The bright English journal called *The Hospital*, devoted to science, medicine, nursing, and philanthropy, publishes, in the issue of July 15, 1893, a view of English and American doctors. Its little preachment has for text the late meeting in congress of the editors and conductors of about four hundred American medical journals. The bare announcement that there are four hundred medical journals in America almost takes the breath away, so says *The Hospital*. How many are there in England? Four dozen? More than four or five that a physiologist would declare to be living and in normal health? The population of Great Britain is more than half the population of the whole of the United States. It is evident that different conditions obtain in America, where the most striking characteristics of modern medicine are courage and freedom. The American's boldness and the Englishman's caution both possess merit. But caution can be too cautious, and then it becomes a limitation. Better crude experiments than to make no experiments at all. England assigns experimentation to a handful and freedom to a class. The bold man claims freedom, and it is granted because he had the courage to take it. The timid is forbidden to open his lips, except by permission. Independence of mind is the true and open secret of American progress. The day is dawning when a like independence will be universal in Great Britain. The men from Oxford, Cambridge, and other ancient universities, who are going all over the country, will submit to no dictation. Freedom of thought, of tongue, of pen, freedom the largest and most absolute, is the inheritance of every medical man as of every Englishman.

A little enthusiasm, a little fearlessness, would put life into the somewhat rusty and creaking machine of English general medicine. Too much dread of the English critic, the terrible man with the pen who writes reviews for the medical journals, prevails in England. But good work well done pays small attention to the irresponsible judgments of the unlearned in large and philosophical medicine. Modern medicine is not a thing of unmeaning traditions and senseless etiquette. It is a living science, a noble art. All its ethics worthy of the name come under the golden rule. And with this rule as a guiding star, medical men in England, like their brethren in America, may claim and use that bold, unshackled freedom which is the first essential of progress and true intellectual greatness.

LAVAGE OF THE WHOLE INTESTINAL TRACT.

It has no doubt often occurred to physicians that a washing out and scrubbing down of the entire intestinal tract would be a most desirable thing to accomplish. We have already succeeded in washing out the stomach satisfactorily, also the large intestine. But there are some twenty odd feet of small intestine which have heretofore defied laundry therapeutics.

In a recent issue of the *Progrès Médical*, Dr. Antoine de Genersch, a Hungarian physician, describes some experiences of his in antiseptic irrigation of the whole digestive tube. This has brought out Dr. Jules Dauriac (*Progrès Médical*, September 30th), who gives his experiments together with some definite conclusions regarding the same subject. Working in the service of Dr. Bourneville, the writer states that he gave total intestinal lavage to eleven infants, who were suffering from obstinate fetid diarrhœas. In all instances the disease was checked. The fluid used was a weak solution of lactic acid, which was forced in through the rectum until evidence of its reaching the stomach was obtained. In five other cases a weak solution of creoline was employed. One case of typhoid fever was treated in the same way with good results. Every day about five litres of the solution was introduced, at a pressure not exceeding sixty centimetres. The treatment was also employed in catarrhal jaundice.

Dr. Dauriac thinks it proved that a partial or complete lavage of the whole intestinal tract can be given safely. He believes that the procedure will have a great utility in the future, when the technique has been perfected.

THE ABANDONMENT OF LITHOTOMY.

Hyderabad is a country which to most of us appears very far away from the great centres of scientific progress, yet it shows itself to be an extremely active surgical focus. The Hyderabad Commission aroused the whole surgical and physiological world to a renewed discussion of anæsthesia. And now Dr. J. Forbes Keith, of the same place, comes forward advocating the entire abandonment of the cutting operation for stone. (The *Lancet*, September 30, 1893.) The advantages of this abandonment ought to be stated first, and they are shown in a statistical table compiled by Dr. Keith. During four years of lithotomy by this surgeon the mortality among 367 cases was 7.8 per cent., while in five years the mortality from lithotrity was, among 1,158 cases, 2.5 and 1.9 per cent. The mortality among 408 cases during the year 1893, when all cases were treated by lithotrity, was only 0.5 per cent. This is surely a brilliant showing, and if Hyderabad surgical conditions are similar to those of other countries, the new methods of Dr. Keith ought to be adopted.

Dr. Keith adapts lithotrity to all kinds and sizes of stones, by two means: first he cuts open the membranous urethra, introduces through its prostatic portion an extra-large lithotrite, and then crushes the stone by striking the male screw with a hammer; next, in very hard stones he introduces first a lithotome by which he cuts the stones into pieces. The description of his plan of work deserves insertion here. He says:

"We have now, in male and female alike, advanced lithotrity to limits circumscribed by the largest instruments available. The largest lithotrite in Bigelow's case locks on stones a little over one inch and a half in diameter; but many cases of stone are admitted into hospital with diameters which are much larger than this instrument can embrace. Seeing the ease with which the largest lithotrites traversed the urethra of the female and the prostatic portion of the male after slitting up of the membranous part, and being thoroughly convinced in my own mind that lithotrites of much larger size could be readily introduced into the bladder of both sexes, and that thus much larger stones could be brought within the sphere of lithotrity, causing a corresponding abandonment of the cutting operations for removing calculi entire from the bladder, I sent a description of the new kind of instrument I wanted to Messrs. Coxeter & Son, and afterward found that this new lithotrite answered my purpose in every way. It was a bold, massive, compact, and highly-finished instrument, the peculiarities of which were its length of male screw (embracing calculi of two inches and a half in diameter) and its long and massive jaws. I had not long to wait before its merits were put to the test, and to my great satisfaction I found that it was as sensitive and easily handled as any of my smaller lithotrites. For breaking up calculi in the first instance this lithotrite is a complete success; and I find that by its use I can remove large calculi with almost as much safety to the patient as I can do smaller stones, with this difference, that the patient is much longer under the influence of chloroform. The small wound in the perineum is of little consequence, as will be seen in the sequel."

The description of the lithotome and its method of use is too detailed for insertion here. Dr. Keith says, however, that he has used it now successfully in five cases.

News of the Week.

Sir Andrew Clark, of London, Seriously Ill.—On October 19th he saw a number of patients in the morning and seemed in his usual health, but soon after noon his butler found him in a state of unconsciousness on the floor of his room. The help of his medical neighbors was at once procured, and it was evident he had been suddenly seized with paraplegia. He partially recovered consciousness the next day and appeared to recognize those in attendance, but had lost the power of speech and the use of the left arm. On Saturday, when the mail left, he was reported to be a little better, but his medical attendants and family were in a state of anxiety, and his numerous friends looked with apprehension to the consequences.—*Our London Correspondent.*

Tobacco for the Insane.—The State Commission in Lunacy of New York having denied the requisition for tobacco for the patients of the Hudson River State Hospital at Poughkeepsie, on the flimsy pretence that there was danger of fire by pipe-smoking, the Board of Managers, through its Committee, has made the following protest:

"To the State Commission in Lunacy. The managers of the Hudson River State Hospital for the Insane, in session at a regular meeting held at Poughkeepsie on October 28, 1893, desire to respectfully protest against the passage or enforcement of any rules or regulations of your Commission prohibiting the use of tobacco by the patients in said hospital. In many in-

stances it is the principal solace and comfort appreciable by them in their unfortunate condition, and to be deprived of its use after being habituated thereto for long periods, often nearly an ordinary life-time, would result in genuine distress and hardship. It is also believed that in many cases deprivation from the use of tobacco would be attended with both mental and physical injury to the patients. In the interest, therefore, of humanity as well as from a medical standpoint, the managers urge that no action be taken by your body looking to the passage or enforcement of the rule or regulation in question."

The Yellow Fever continues at Brunswick, Ga., there still being about twelve new cases daily. The epidemic is declining, however, and all fear of its extension has disappeared. The local quarantine has been raised.

A Tooth-making Boy.—Dr. O. Hildebrand, of Göttingen, reports the case of a boy of fourteen, who since the age of twelve years had had from a hundred and fifty to two hundred teeth of various sizes removed. A year and a half later seventeen more were removed, with evidences of others coming. The boy's jaws seemed to be a perennial fountain of teeth.

Cures for Inebriety.—It is interesting to learn that the action for libel brought by Dr. Leslie E. Keeley, of "gold cure" notoriety, against the editors of *The Lancet*, has been discontinued by him, and that he will have to pay the taxed costs of the action.

The Philadelphia County Medical Society and Nostrums.—At a meeting of the Philadelphia County Medical Society, held October 18, 1893, the following resolution was unanimously adopted:

"Whereas, Dr. James E. Reeves, of Chattanooga, having denounced the so-called 'Amick Cure' for consumption as a quack nostrum, and stated that its proprietor was not a physician in good and regular standing, was accused of criminal libel; and

"Whereas, The grand jury has ignored the indictment brought against him; be it

"*Resolved*, That the Philadelphia County Medical Society congratulates Dr. Reeves on his bravery, a bravery unfortunately too rare at the present day, and tenders him sympathy in the persecution to which he has been subjected.

"*Resolved*, That no person who makes, deals in, or advertises as a cure a quack nostrum, that is to say, a preparation the composition of which is kept secret, can be termed a physician in good and regular standing, because such action is *ipso facto* sufficient to cause forfeiture of membership in this or any other County Medical Society governed by the laws of the American Medical Association.

"*Resolved*, That a copy of these resolutions, duly attested with the signature of the President and Secretary, and with the seal of the Society, be forwarded to Dr. Reeves, and that they be handed to the press for publication."

As a fitting supplement, it may be stated that Dr. Reeves has won his case in court.

New Medical College.—The trustees of the Kansas Medical College met at Topeka, October 9th, and voted to erect a new college building. Francis Storrs, M.D., was elected Instructor in Latin, and G. L. Beers, A.M., M.D., Professor of Materia Medica and Therapeutics.

New Hospital at San Francisco.—The new hospital annex of the Cooper Medical College of San Francisco, will be opened some time next summer. The building will cost somewhere in the neighborhood of $150,000, and will have a capacity of one hundred beds.

Dr. George W. Jarman has been elected attending gynecologist to the New York Cancer Hospital

A Tribute to the Late Dr. Peters.—A correspondent of the *Evening Post* writes: "Sir: I notice the death of Dr. John C. Peters, and would like to put on record, in your columns, a little testimony as to his patriotism. In 1862 I was a lieutenant in a New York regiment, and participated in the Chickahominy campaign against Richmond. When the army had effected its change of base and reached the James River, I was among the number stricken with 'Chickahominy fever,' and was sent to my home in this city for treatment. Dr. John C. Peters was called in, and most faithfully did he care for me, calling two and three times a day while the fever was at its worst. When finally I was ready for duty, I called for his bill, whereupon he said: 'I am, like many others in my profession, debarred from going to the front, where my sympathies lie, for I have responsibilities at home that prevent. But my heart is wholly with our soldiers, and as I cannot share their perils, the next best thing I can do is to take care of them professionally when they fall into my hands. I make no charge for services rendered our sick soldiers, and I have no bill against you.' There are other old soldiers who can bear witness to similar kindnesses received at his hands, and now that he has gone to his reward I am sure they will be remembered to his credit."

The Empress of Russia's Physician when in attendance upon his imperial patient receives a fee of $350 a day (700 rubles).

Legacy to Philadelphia Hospitals.—The Ingersoll estate was partially divided, October 11th, by which the Episcopal Hospital, the Children's Hospital, and the Consumptives' Home, all of Philadelphia, each received one third of $476,574.67, the residue on hand at the date of the distribution.

A Centenarian.—A man, named Pedro Erello, is said to have died on July 12th, at Tarimors, in Mexico, at the patriarchal age of one hundred and thirty-three, leaving four hundred living descendants. The funeral, which was largely attended by his family, was, for obvious reasons, held in a church.

Antiseptic Hairdressing.—The Government of the Republic of Colombia has, in view of the possibility of contagious diseases such as ringworm, favus, and syphilis, being transmitted by combs, brushes, etc., passed an enactment making it compulsory for all barbers and hairdressers to keep the instruments of their art clean, and to disinfect them every time they have been used. A notice to this effect is to be posted up in all tonsorial establishments.

Hypnotism in Russia.—The practice of hypnotism, which has hitherto been forbidden in Russia, has recently been legalized, subject to the restrictions indicated by the Minister of the Interior as follows: "Physicians

must strictly observe the provisions of Art. 115 of the Medical Code; they must inform the administrative authorities of their intervention in each case, mentioning the name of the physician present at the sitting. All advertisement of treatment is forbidden."

St. Luke's Hospital.—Dr. Van Horne Norris has been made an Attending Physician.

Hospital Graduates' Club.—The following officers are elected for the ensuing year: *President*, Dr. N. H. Henry; *Vice-President*, Dr. T. T. Janeway; *Secretary*, Dr. F. A. Manning; *Executive Committee*, Drs. W. R. Townsend and C. A. Powers.

Death of Dr. A. W. Heise, of Joliet, Ill.—Adolphus W. Heise, M.D., aged seventy years, died of sclerosis of the brain in Joliet, Ill., October 22, 1893. Born in Bramsche, Germany, he was graduated from Heidelberg in 1842, and from Goettingen in 1846. Taking part in the revolution in 1848 he was compelled to leave the country and come to America. In 1849 he located in Du Page Co., Ill., and practised there until 1856, when he went to New York, was house surgeon in the Marine Hospital on Ward's Island in 1857, and then came to Joliet. Was surgeon of the Eleventh Regiment, Illinois Volunteer Infantry, three months service, and then of the One-hundreth Regiment. After the battle of Murphreesboro was promoted to Brigade Surgeon and Operator of the Brigade, which position he held until compelled to resign in 1864 on account of ill health.

Alfred Ludlow Carroll, M.D., died October 30th at his residence, 30 West Fifty-ninth street, after a short illness. Dr. Carroll was born here on August 4, 1833. He was a son of the late Anthony Carroll. In 1855 he was graduated from the medical department of the University. He was a student under and assistant to Dr. Valentine Mott. Dr. Carroll practised medicine in this city until 1871, when he removed to Staten Island. He organized the Board of Health on Staten Island, and was its first President. While living at Staten Island he was appointed Secretary of the State Board of Health. In 1889 he resumed his practice in New York City. Dr. Carroll was one of the originators of the New York State Medical Association, and was also a member of the British Medical Association. He was instrumental in organizing the Society of Letters, Arts, and Sciences. He is survived by two sons.

To the profession the deceased was well known as an indefatigable worker, a citizen of exceptionable public spirit, a graceful writer, and fluent debater. In disposition amiable, he won many friends, who yielded homage to his great abilities while they regretted the extreme modesty which tended to obscure them. All in all, he was a most admirable gentleman, and much that he offered will abide with us. His remains were interred in the family vault in old St. Mark's Churchyard.

New York State Association of Railway Surgeons.—The third Annual Meeting is to be held in the Academy of Medicine, 17 West Forty-third Street, New York City, Wednesday, November 15, 1893.

Russian Physicians.—There are 12,000 male physicians in Russia, of whom 2,500 are in the army, and 400 female physicians. There is one doctor to every 12,000 people.

Reviews and Notices of Books.

A Manual for Boards of Health and Health Officers. By Lewis Balch, M.D., Ph.D., Secretary of the Board of Health, State of New York. Albany and New York: Banks & Brothers.

The Legislature of this State passed the Health Law some years ago, organizing a State Board which should be a central body having authority, and creating local boards in towns, counties, and villages, which should all ultimately form a part of one system. "Ultimately," because the local health officers were to learn as the months went by the duties of their office, and the local boards were to be taught how and when they should act in the interests of the public health, either in their own municipalities or away from them. The work of teaching them was under the law placed on the Secretary of the State Board, because he, as the Executive officer, found himself obliged to answer the ceaseless inquiries from the local boards as to the meaning of the law itself, or of the various resolutions passed by the State Board. The efficiency of the boards of health of the State of New York, their power of united action, and the sureness with which they will handle any disease dangerous to the public health, is the result of the never-ending work of the Secretaries of the State Board.

Dr. Lewis Balch, the present secretary, has been longer in his office than any of his predecessors. During his time the work of the State Board has grown in most amazing fashion, and the local boards have become more efficient than ever. The reason of this growth, the letters which he has had to answer, is the origin of this book which he has just published. No one could have written this Manual who had not before him the innumerable questions which many men of many minds have asked. In no other way could the difficulties which the law presents to those unfamiliar with it, have been known, and it is but justice to Dr. Balch to say that he solves these difficulties to the full.

The book is the most practical of Manuals on the Public Health Law of New York. It explains the relations between the State and local boards, the duties of each, the powers of the latter in their municipalities, the procedure necessary to make their work legal, the measures which should be taken to preserve the health of the people, as well as those which should follow the outbreak of contagious disease. Each subject is treated fully and clearly. Blank forms of Vital Statistic returns are filled up, and the Health Law is bound up with the Manual, which explains it. It is one of the most practical works that we have seen, and will be of value to all interested in the public health.

Transactions of American Pediatric Society. Fourth Session, Held at Boston. Edited by William Perry Watson, A.M., M.D. Vol. IV. Bailey & Fairchild. 8vo, pp. 276. 1893.

This volume contains several interesting papers on Diphtheria, Typhoid Fever, and Chorea, with a scholarly address on Specialism, by the retiring President, Professor William Osler, of Philadelphia.

Lessons in Physical Diagnosis. By Alfred L. Loomis, M.D., LL.D., Professor of Practice of Medicine and Pathology, University of the City of New York. Tenth Edition. 8vo, pp. 278. New York: William Wood & Co. 1893.

This work long ago won for itself a leading position in its line. In the present edition the section on the physiological action of the heart, and the lesson on examination of the urine, have been entirely rewritten, while a new lesson on clinical microscopy has been added. At present it may be considered to be as complete a guide within its compass as can be obtained in any language.

Society Reports.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 5, 1893.

D. B. St. John Roosa, M.D., President, in the Chair.

Report of the Statistical Secretary.—Dr. A. B. Judson, Statistical Secretary, reported the deaths of members since the meeting in June. The number had been unusually large.

Accessions to the Library.—Dr. Edward S. Peck, Executive Librarian, reported that since the last meeting the library had received 77 volumes, 533 pamphlets, and 8,359 numbers of medical journals.

Dr. M. Allen Starr, Corresponding Secretary, said he had received an official announcement of the death of Dr. Charcot, which the Council had duly acknowledged.

Memorial of Charles Carroll Lee, M.D.—Dr. H. T. Hanks read a touching memorial of the late Dr. Lee, former Vice-President of the Academy, and at the time of his death President of the County Medical Society. The address referred to Dr. Lee as possessing in the highest degree the qualities of respect for his fellow-man, earnestness of purpose, attention to duty, affability, dignity, and friendship. His success was due more to persistence than to flights of genius. He was very popular with the medical profession, was loved and respected by his patients, and his family life was a model in every respect.

A Club for Medical Men.—The President stated that the buffet would be open by the next meeting, when the members of the Academy could obtain refreshments and cultivate the social amenities. He hoped the club life of the Academy would prove as successful as had the scientific work.

Some Therapeutic Reflections.—Dr. Simon Baruch presented the paper in the spirit of the prudent merchant who found it desirable from time to time to take an account of stock. Lessons should be drawn from our own and our forefathers' experience. Many remedies much lauded at one time came to be cast aside either as harmful, valueless, or inferior to others. Among these was venesection. The opium treatment of peritonitis had given place to salines. The examples of change, presumably for the better, could be multiplied many times. How often could we conscientiously say that we had accomplished by a given medicinal agent the cure or removal of a disease? With the exception of quinine, perhaps mercury and the iodides, there was scarcely a single agent which could be considered as actually curative. Yet we constantly met with physicians who acted on the contrary view. The faith of some physicians in drugs rivalled that of the laity. The temperature could readily be reduced by drugs from 105° to 100° F., and, as in a certain case of pneumonia treated by veratrum viride, we might have the satisfaction of seeing our patient die with almost a normal temperature. There was too much strife for symptom remedies. As pathologists it was our work to discover disease in the organs, but as physicians we must act before. To guard against the development of altered or interrupted function into organic disease was the duty of the true physician. He must learn that medicinal agents played an unimportant rôle. We must consider the mode of living—the breathing, eating, exercise, recreation, etc. Attention to these facts would give a surer basis for effecting a cure and in preventing disease than all medicinal agents from ancient gentian to modern quinine. A correct early diagnosis was important for a favorable issue. Anodynes often left the physician with a sense of false security. Example: In cases of appendicitis our remedies were often a burden to the kidneys and skin, which should be channels of vicarious action. In acute conditions rest was indicated; in chronic conditions, rest judiciously alternated with activity of organs. The superiority of physiological or hygienic methods over medicinal, as a rule, was illustrated by the action of water upon typhoid patients. In spite of the improved statistics shown by the Brandt method, in only three hospitals of the city had it come to be the chief treatment of typhoid fever. Chlorosis was treated almost universally by iron, yet how much superior would be a change to mountainous regions with out-of-door exercise and wholesome food. If one-third the attention given by the profession to new drugs were given to the study and application of hydrotherapy the race would soon rise and call us blessed. The modern physician was enslaved by the drug-prescribing habit.

The author concluded by saying that while not denouncing drugs, he wished to reimpress the importance of rest, exercise, diet, water, hygiene, remedies which had withstood the test of time and which challenged the most searching investigation.

Common Sense in Treatment.—Dr. Alfred L. Loomis was requested by the President to open the discussion, Dr. Draper, who was to open the discussion, not being present. He said it seemed to him that the paper was an argument for the use of common-sense in the treatment of disease. While it was being read he recalled a paper which had been presented before the American Climatological Association at its meeting in Boston three or four years ago. In it was given the mortality-rate of pneumonia as it had occurred in the Massachusetts General Hospital during a period of seventy-five years under various plans of treatment. The author of the paper took into consideration the age of the patients, habits of life and surroundings prior to admission, and, as far as possible, all those conditions which would be likely to influence the results of treatment. At one time during the seventy-five years the antimony treatment of pneumonia prevailed, at another the blood-letting, at another the calomel, at another the let-alone plan, at another the antipyretic, and finally the antiseptic treatment prevailed, presenting the results in the form of a chart during the different decades when these several plans of treatment were in vogue. The chart, arranged on a similar plan to a temperature chart, showed, instead of a zigzag line, which one might expect, almost a straight line for the entire seventy-five years. This result had seemed to Dr. Loomis the strongest proof that a certain proportion of patients with pneumonia would recover, whatever kind of treatment they might be subjected to, while a certain proportion would die. In other words, there was a certain proportion of cases in which the death-blow took place at the beginning, and the result would not be modified in those cases, at least by treatment; between these two classes of cases there were a limited number where life might be saved by judicious management. He believed that every good physician, every careful observer, every intelligent man, as he grew older, became less and less attached to drugs. The more he saw of disease and the more he treated it, the more did he become convinced that the most reliable therapeutic agents were proper food, fresh air, exercise, rest, and water. The speaker was sometimes astonished, on carrying a patient safely through typhoid fever or some other form of acute disease, at the few medicines he had prescribed. About three years ago he read a paper before the State Medical Society in which he thought he had shown conclusively that ordinary use of antipyretics did harm rather than good. It seemed to him that when we studied the condition of our patient, the causes of his disease, and their immediate and ultimate effects, we would treat him rather than the disease, using, for the most part, such physiological remedies as the author had referred to. "I have sometimes thought that Dr. Baruch has gone a little 'crazy' on the use of water in his treatment of disease. Perhaps I am a little off on fresh air, climate, change of surroundings, and all that these imply. If we are enthusiasts the tendency is to favor one line of therapeutics more than another, however good or bad it may be; but the statements contained in the paper in regard to the treatment of disease by drugs I most heartily endorse."

Not Ready to Discard Drugs.—Dr. A. Jacobi said that Dr. Loomis was correct in the statement that he had been preparing what he should say, for he had been preparing himself the last half hour and had prepared himself so much indeed that he now had really nothing to say. He had taken notes but had said to himself, "Yes, that is well understood and everybody knows it; if not, everybody ought to know it, and may know it in the future." On the other hand, he had noted several things with which he could not agree, and while he admitted the former he would also defend the latter.

No sensible person would say to day that the whole of medical science or therapeutics consisted in prescription-writing, any more than that forty or fifty years ago the whole of medical science in certain parts of Europe consisted in diagnosis. While there might be a disposition on the part of some doctors, or doctors in some localities, at certain periods, to give too much attention to one branch of medical science, yet they must admit that diagnosis, pathology, prescription-writing, and the various other departments of medicine were necessary to make up the whole

It should also be remembered that as individual physicians we had to deal with individual cases of disease, although the tendency of that disease in the generality of patients was to get well. If the cases were left alone, the patient was kept in bed, supplied with fresh air, such diet as was appropriate, and given such hygienic surroundings as were desirable, it was true that unnecessary medicines could then only prove disturbing. However, now and then a medicine would certainly be required, if it were only for the purpose of, for instance, correcting the gastric secretions in fever. For such a reason hydrochloric acid, or even an antipyretic, might be indicated and prove useful. Each individual case must be treated according to its merits. It was all very well to bring statistics of, for instance, a thousand cases of pneumonia, which had been treated in different ways, but he did not believe we could learn by this means how to deal with individual cases of pneumonia.

He had understood that the author condemned venesection *in toto* in the treatment of pneumonia. He could not take this view even of this therapeutic procedure, for although it was seldom called for, yet there were now and then cases in which it alone would save the life of the patient. When the state of the circulation demanded venesection he then regarded this procedure just as much a physiological remedy as were diet, climate, water, etc.

He fully agreed with the author as to the impropriety of overdosing in the treatment of high temperature, but here again he must say that there were individual cases in which it was necessary to resort to the use of antipyretics. For instance, when the temperature was at 105° or 107° F., the stomach might refuse to absorb any nourishment whatever until that temperature had been reduced, as it could readily be by the use of certain drugs. He also agreed with Dr. Loomis that the older we get the more we were inclined to reduce the number of our medicines. The example of the German Pharmacopœia was worthy of our imitation in this regard. The number of remedies which that had included had gradually dwindled down to hundreds, where it had been thousands some years ago, yet he hoped that he would not become so old that he would drop all medicines. He wanted, for instance, his salicylic acid, to which the author had referred; his quinine, and a great many other excellent remedies in certain cases. He did not wish to be reduced simply to cold water, fresh air, climate, and diet, in the treatment, for instance, of diphtheria.

Unnecessary prescription-writing was bad, so was excessive eating, sitting in a draught, excessive bathing, etc.

Dr. George L. Peabody said that he agreed with the general drift of the communication, but in certain details he found himself somewhat at variance with it. There could be no doubt, he thought, that it was far better to resort to some such rational therapeutics as the paper had indicated than to symptomatic therapeutics which it had condemned in rather a wholesale way. Symptomatic therapeutics was simply no therapeutics in a large majority of cases. It was, in his opinion, a misnomer. Yet occasionally symptoms arose which were so urgent that they had to be treated merely as symptoms.

When it came to the author's proposition to treat all chronic diseases by, for instance, sending the patient to the mountains, this might be very well where the circumstances would permit; but how about the pale-faced anæmic or chlorotic maiden without means, and living in unfavorable environments? We were compelled to do what we could by prescribing medicines. He must also admit that personally he felt that iron was of considerable value in chlorosis, even where the circumstances would permit of carrying out hygienic rules.

He was also somewhat a believer in the efficacy of intestinal antisepsis. Not that he expected them to ferret out all the bacteria in typhoid fever and annihilate them at a blow, but they seemed to check intestinal fermentation and the development of gas, and promote digestion

As to discarding blood letting altogether, as he understood Dr. Baruch did, he was in agreement with D. Jacobi that there was certain cases of pneumonia, for instance, in which it was of benefit. Of course the old custom of bleeding in nearly every case, and even to the extent of producing syncope, should never be revived. Especially had he found that blood-letting was a life-saving agent in some cases of coal-gas poisoning.

He had already put himself on record as to the value of the full bath, or Brandt method of treatment of typhoid fever, and it was unnecessary for him to say that he disapproved of any modification or substitute; yet it was here like in the case of the pale-faced, chlorotic maiden who could not go to the mountains. Poverty sometimes made it impossible to apply the treatment in the most perfect way. Under these circumstances he had found the bed-bath a good substitute, though far inferior to the tub-bath.

Regarding the evil of symptomatic treatment or the abuse of prescription-writing, he regarded it as due largely to the ignorance of partially educated physicians, and believed it would not cease until the public demanded a higher grade of education on the part of the medical adviser, and showed its willingness to pay for the better service.

Dr. Baruch said, in conclusion, that the reason why he had written this paper was to be found in the statement of two of the speakers, namely, that as we grow older we resort less and less to drugs. Some thirty years ago this fact had been alluded to by a physician whom he had occasion to meet in consultation, and who told him that when he should have attained to riper experience he would not be so positive as to the exact action of certain medicinal agents. Dr. Baruch had warmly disputed this statement, but time had proven the correctness of the old physician's assertion. It was especially desirable that young men should be taught not to place too much reliance upon drugs.

He said that if he was "crazy" as to the use of water, there were a good many lunatics abroad in Germany and France, and some in this city, one of whom had spoken quite rationally while discussing the paper.

Regarding venesection, he said that he had only given the general opinion of the profession on the subject. There were some rare cases where he thought himself it was of benefit.

A Doctor with Experience Wanted.—One day, while mending the roof of his house, Chodja lost his balance and, falling to the ground, broke a rib. A friend of his went hurriedly for a Hakim (doctor). "Hakim, have you ever fallen from a roof and broken a rib?" was the first question Chodja asked the doctor. "Thank God, no," replied the Hakim. "Then go away at once, please," cried Chodja; "I want a doctor who has fallen from a roof and knows what it is."

The Bill of the National Quarantine Committee of the New York Academy of Medicine.

THE following is the final draft of the bill of the Committee on Quarantine of the New York Academy of Medicine, which is to be presented to Congress during its coming session :

A Bill to establish within the Treasury Department a Bureau of Public Health.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled :

Creating Sanitary Districts.

SECTION 1. That for the purposes of this Act the States and Territories of the United States be, and are hereby, grouped into districts, to be known as "The Sanitary Districts of the United States," as follows :

The Northern Sanitary District shall include the States of Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio, Wisconsin.

The Northeastern Sanitary District shall include the States of Connecticut, Massachusetts, Maine, New Hampshire, New York, Rhode Island, Vermont.

The Northwestern Sanitary District shall include the States of Idaho, Montana, North Dakota, Oregon, Washington, and the Territory of Alaska.

The Eastern Sanitary District shall include the States of Delaware, Maryland, New Jersey, Pennsylvania, Virginia, West Virginia, and the District of Columbia.

The Western Sanitary District shall include the States of California, Nevada, and the Territories of Arizona and Utah.

The Southern Sanitary District shall include the States of Arkansas, Alabama, Kentucky, Louisiana, Missouri, Mississippi, Tennessee.

The Southeastern Sanitary District shall include the States of Florida, Georgia, North Carolina, South Carolina.

The Southwestern Sanitary District shall include the State of Texas and the Territories of Indian Territory, New Mexico, Oklahoma.

The Central Sanitary District shall include the States of Colorado, Kansas, Nebraska, South Dakota, Wyoming.

SEC. 2.. That there shall be established in the Treasury Department, under the direction and supervision of the Secretary thereof, a Bureau of Public Health, to consist of a commission of fifteen, of whom eleven shall be appointed by the President, by and with the advice and consent of the Senate, as follows, viz. : One Medical Commissioner from each of the "Sanitary Districts of the United States," provided in section one of this Act, and two commissioners at large ; the compensation of the appointed commissioners, when actually engaged in the performance of their duties under this Act, shall be ten dollars per diem and reasonable expenses. The other four members of the Commission shall be the Surgeon-General of the Army, the Surgeon-General of the Navy, and the Supervising Surgeon-General of the Marine Hospital Service, and an officer, learned in the law, detailed by the Attorney-General from the Department of Justice ; these four members shall receive no compensation.

SEC. 3. That the members of the Commission shall meet at such time and place as may be designated by the Secretary of the Treasury, and organize by the election, from their own number, of a president who shall be one of the members at large, and who shall receive five dollars per diem, in addition to the ten dollars per diem provided in the last section, when actually engaged in the performance of his duties under this Act. The other member-at-large shall be Vice-President of the Commission who shall perform the duties of President when the latter is unable to do so. The Commission may appoint a Secretary not one of its number, and fix his salary at a sum not exceeding three thousand dollars annually. The Commission shall thereafter meet annually, at Washington, on the first Tuesday of October, and at such other times and places as the President of the Commission, with the approval of the Secretary of the Treasury, may designate. At the first meeting of the Commission, the members appointed from sanitary districts shall be divided into three classes of three members each, and they shall determine by lot to which class each member shall belong ; the first class shall serve for one year, the second class for two years, and the third class for three years ; the two members at large shall serve, one for three years, and the other for six years and they shall determine by lot their respective terms of service ; thereafter the terms of service of each member appointed from a sanitary district shall be for three years, and each member appointed at large shall be for six years ; all appointments to fill vacancies shall be for the unexpired term.

SEC. 4. That there shall be an Executive Committee of the Commission, consisting of its President, the Surgeon-General of the Army, the Surgeon-General of the Navy, and the Supervising Surgeon-General of the Marine Hospital Service, and the officer detailed by the Attorney-General. The Commission shall from time to time prescribe the duties of the Executive Committee, and may make all needful rules and regulations for its own control and for the guidance and discipline of all its officers and employees, and shall establish all rules and regulations for the government of national sanitation in all of its foreign and interstate relations, and special departments in the enforcement of the provisions of this Act.

SEC. 5. That when, in the opinion of the President of the Commission, the interest of the public health would be promoted by a conference of the Commission with the State Boards of Health of the several States, or of any sanitary district or districts, he is hereby authorized to invite, with the approval of the Secretary of the Treasury, said State Boards of Health, or such number thereof as he may designate, each to delegate one of its members to meet the Commission in conference at such time and place as he may appoint ; the President of the Commission shall be the President, and the Secretary of the Commission shall be the Secretary of any such conference ; the delegate in attendance upon the conference from each State Board of Health shall be entitled to receive reasonable compensation for expenses for a session not exceeding three days, to be paid on vouchers provided by the Secretary of the Treasury.

SEC. 6. That the duties of the Bureau of Public Health shall be to collect and diffuse information upon all matters affecting the public health : to advise the several departments of the Government, the executives of the several States, and all health authorities on all questions submitted to it, or whenever in the opinion of the Bureau such advice may tend to the preservation and improvement of the public health ; to secure the best sanitary condition of vessels from foreign ports ; to prevent the introduction of contagious and infectious diseases into the United States, and their spread from one State into another ; to co operate with and aid State and municipal health authorities in the execution and enforcement of rules and regulations to suppress contagious and infectious diseases ; and, in general, to be the medium through which the General Government shall adopt such measures and take such action as will most effectually protect and promote the health of the people of the United States.

SEC. 7. That the Bureau of Public Health may, with the approval of the Secretary of the Treasury, make investigations, both in the United States and, if necessary, in foreign countries, into the nature, origin, and prevention of contagious, epidemic, and other diseases, as well as the causes and conditions of particular outbreaks of disease in the United States, and may employ such experts and for such time and in such manner as the exigencies of the service may require. When requested by

the Bureau of Public Health, and when the same can be done without prejudice to the public service, the President may detail officers from the several Departments of the Government for temporary duty to act under the direction of said Bureau, to carry out the provisions of this act; and such officers shall receive no additional compensation except for actual and necessary expenses incurred in the performance of such duties.

SEC. 8. That as soon as practicable after this act shall take effect the Commissioners appointed from the Sanitary Districts shall each in his respective District examine all the means and measures employed by State, municipal, and other health authorities to prevent the introduction of contagious and infectious diseases into the United States, and their spread from one State or Territory into another, and report the fact to the Bureau of Public Health, and the Commission shall embody these facts in a report to the Secretary of the Treasury, who shall transmit the same to Congress with such recommendations as he may deem important. Thereafter each Commissioner shall annually, on or before October 1st, report upon the measures employed, with the result, in his Sanitary District to prevent the introduction, origin, and spread of contagious and infectious diseases, and the Commission shall embody the facts in its annual report to the Secretary of the Treasury.

SEC. 9. That it shall also be the duty of the Bureau of Public Health to obtain information of the sanitary condition of foreign ports and places from which contagious and infectious diseases are or may be imported into the United States, and to this end the consular officers of the United States at such ports and places as shall be designated by the Bureau of Public Health shall make to said Bureau weekly reports of the sanitary condition of the ports and places at which they are respectively stationed, according to such forms as said Bureau may prescribe; and the Bureau of Public Health shall also obtain, through all sources accessible, including State and municipal sanitary authorities throughout the United States, weekly reports of the sanitary condition of ports and places within the United States; and shall also, as far as it may be able, by means of the voluntary co operation of State and municipal authorities, of public associations, and private persons, procure information relating to the climatic and other conditions affecting the public health, and the existence of epidemic, endemic, and other diseases; also statistics relating to marriages, births, and deaths.

SEC. 10. That the Commission shall prepare, publish, and transmit to the medical officers of the Army, Navy, and the Marine Hospital Service, to collectors of customs, and to State and municipal health officers and authorities, weekly abstracts of the consular sanitary reports and other pertinent information received by the Bureau of Public Health.

SEC. 11. That whenever any department of Government or the Executive of any State or Territory, or the authorities of the District of Columbia, or the health authorities of any State or municipality, shall request information from the Bureau of Public Health in regard to any matter pertaining to the protection or promotion of the public health, said Bureau shall promptly furnish such information as it may have on record, together with any necessary or pertinent advice; and whenever information shall be received by the Bureau which the interests of the public health require should be promptly communicated to any department of the Government, or to any State or municipal officer, such information shall be forthwith furnished to the respective department or officer.

SEC. 12. That the Commission shall take such action by correspondence or conference as will tend most effectually to secure the co-operation of State, municipal, and local boards of health in establishing and maintaining an efficient and accurate system of notification of the existence and progress of contagious and infectious diseases in the United States, and said Commission shall also by co-operation with the proper health authorities of foreign nationalities and municipalities endeavor to extend to the United States a reliable system of international notification of the existence and progress of such diseases as cholera, yellow fever, typhus fever, and small-pox.

SEC. 13. That the Bureau of Public Health shall make such rules and regulations, with the approval of the Secretary of the Treasury, as are necessary to be observed by vessels at the port of departure and on the voyage, where such vessels sail from any foreign port or place, to secure the best sanitary condition of such vessel, her cargo, passengers, and crew, which shall be published and communicated to and enforced by the consular officers of the United States. None of the penalties herein imposed shall attach to any vessel, or owner or officer thereof, until a copy of this act, with the rules and regulations made in pursuance thereof, has been posted up in the office of the consul or other consular officer of the United States for ten days, in the port from which said vessel sailed; and the certificate of such consul or consular officer over his official signature shall be competent evidence of such posting in any court of the United States.

SEC. 14. That the Bureau of Public Health shall, with the approval of the Secretary of the Treasury, from time to time issue to the consular officers of the United States, and to the medical officers serving at any foreign port, and otherwise make publicly known, the rules and regulations made by it, and approved by the Secretary of the Treasury, to be used and complied with by vessels in foreign ports for securing the best sanitary condition of such vessels, their cargoes, passengers, and crew, before their departure for any port in the United States, and in the course of the voyage, and all such other rules and regulations as shall be observed in the inspection of the same on the arrival thereof at any quarantine station at the port of destination, and for the disinfection and isolation of the same, and the treatment of cargo and persons on board, so as to prevent the introduction of cholera, yellow fever, or other contagious or infectious diseases.

SEC. 15. That it shall be unlawful for any merchantship or other vessel from any foreign port or place to enter any port of the United States except in accordance with the provisions of this act, and with such rules and regulations of State and municipal health authorities as may be made in pursuance of, or consistent with, this act; and any such vessel which shall enter, or attempt to enter, a port of the United States in violation thereof shall forfeit to the United States a sum, to be awarded at the discretion of the court, not exceeding $5,000, which shall be a lien upon said vessel, to be recovered by proceedings in the proper district court of the United States. In all such proceedings the United States district attorney for such district shall appear on behalf of the United States; and all such proceedings shall be conducted in accordance with the rules and laws governing cases of seizure of vessels for violation of the revenue laws of the United States.

SEC. 16. That any vessels at any foreign port clearing for any port or place in the United States shall be required to obtain from the consul, vice-consul, or other consular officer of the United States at port of departure, or from the medical officer where such officer has been detailed for that purpose, a bill of health, in duplicate, in the form prescribed by the Secretary of the Treasury, setting forth the sanitary history and condition of said vessel, and that it has in all respects complied with the rules and regulations in such cases prescribed for securing the best sanitary condition of the said vessel, its cargo, passengers, and crew; and said consular or medical officer is required, before granting such duplicate bill of health, to be satisfied that the matters and things stated therein are true; and for his services in that behalf he shall be entitled to demand and receive such fees as shall by lawful regulation be allowed, to be accounted for as required in other cases.

The President, in his discretion, is authorized to detail any medical officer of the Government to serve in

the office of the consul at any foreign port for the purpose of furnishing information and making the inspection and giving the bills of health hereinbefore mentioned. Any vessel clearing and sailing from any such port without such bill of health, and entering any port of the United States, shall forfeit to the United States not more than $5,000, the amount to be determined by the court, which shall be a lien on the same, to be recovered by proceedings in the proper district court of the United States. In all such proceedings the United States district attorney for such district shall appear on behalf of the United States; and all such proceedings shall be conducted in accordance with the rules and laws governing cases of seizure of vessels for violation of the revenue laws of the United States.

Sec. 17. That it shall not be lawful for any vessel to enter any port of the United States to discharge its cargo, or land its passengers, except upon a certificate of the health officer at such quarantine station certifying that said rules and regulations have in all respects been observed and complied with, as well on his part as on the part of the said vessel and its master, in respect to the same and to its cargo, passengers and crew; and the master of every such vessel shall produce and deliver to the collector of customs at said port of entry, together with the other papers of the vessel, the said bills of health required to be obtained at the port of departure, and the certificate herein required to be obtained from the health officer at the port of entry; and that the bills of health herein prescribed shall be considered as part of the ship's papers, and when duly certified to by the proper consular or other officer of the United States, over his official signature and seal, shall be accepted as evidence of the statements therein contained in any court of the United States.

Sec. 18. That the Commission, with the approval of the Secretary of the Treasury, shall have authority to forbid entry of vessels from ports known or suspected to be infected with cholera, yellow fever, small-pox, or other declared quarantinable disease into all minor approaches to a port of entry or into any inlet or place within the jurisdiction of the United States not provided with a complete quarantine plant, in order to compel such vessels to be subjected to maritime sanitation at the quarantine station equipped for that purpose and commanding the scope of region in question.

Sec. 19. That on the arrival of an infected vessel at any port not provided with proper facilities for treatment of the same, the Commission may remand said vessel, at its own expense, to the nearest national or other quarantine station where accommodations and appliances are provided for the necessary disinfection and treatment of the vessel, passengers, and cargo; and after treatment of any infected vessel at a national quarantine station, and after certificate shall have been given by the United States quarantine officer at said station that the vessel, cargo, and passengers are each and all free from infectious disease, or danger of conveying the same, said vessel shall be admitted to entry to any port of the United States named within the certificate. But at any ports where sufficient quarantine provision has been made by State or local authorities, the Commission may direct vessels bound for said ports to undergo quarantine at said State or local station.

Sec. 20. That when cholera or yellow fever shall be ascertained by the Bureau to exist in any port or place within any one of the United States or Territories, or the District of Columbia, in such form as threatens its spread to other ports and places within other States, or Territories or the District of Columbia, by means of vessels and vehicles engaged in the transportation of goods or passengers between two or more States, or States and Territories, and the District of Columbia, whether by land or water, the Commission is authorized to adopt such rules and regulation with the approval of the Secretary of the Treasury, as, in its judgment, may be necessary in order to prevent the spread thereof from one State or Territory to another or to the District of Columbia, and to employ such inspectors and other persons as may be necessary for the purpose aforesaid; the Commission may select suitable localities for establishing stations on rivers and other lines of inter State commerce and travel by railroads, and may cause to be erected necessary temporary buildings for the disinfection of passengers, baggage, cargoes, vessels, and vehicles, and may enforce such rules and regulations relating thereto as may have been prescribed therefor; it shall be lawful for the Commission to confer upon any local health officer or health board within or near the locality where his or its authority is exercised, power also to enforce the provisions of this act and any rules and regulations made in pursuance thereof; and any person who shall knowingly disobey or violate any order, rule, or regulation made pursuant to the authority herein conferred shall be deemed guilty of a misdemeanor, punishable by a fine of not less than five hundred dollars, and by imprisonment for a period of not less than one year.

Sec. 21. That the Commission shall, under the direction of the Secretary of the Treasury, co-operate with and aid State and municipal health authorities in the execution and enforcement of the rules and regulations of such authorities, and in the execution and enforcement of the rules and regulations made by the Commission and approved by the Secretary of the Treasury to prevent the introduction of contagious or infectious diseases into the United States from foreign countries, and into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia; and all rules and regulations made by the Commission and approved by the Secretary of the Treasury shall operate uniformly and in no manner discriminate against any port or place; and at such ports and places within the United States as have no quarantine regulations under State or municipal authority, where such regulations are, in the opinion of the Commission, necessary to prevent the introduction of contagious or infectious diseases into the United States from foreign countries, or into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia, and at such ports and places within the United States where quarantine regulations exist under the authority of the State or municipality which, in the opinion of the Commission, are not sufficient to prevent the introduction of such diseases into the United States, or into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia, the Commission shall, if in its judgment it is necessary and proper, make such additional rules and regulations as are necessary to prevent the introduction of such diseases into the United States from foreign countries, or into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia, and when said rules and regulations have been made they shall be promulgated by the Commission and enforced by the sanitary authorities of the States and municipalities, where the State or municipal health authorities will undertake to execute and enforce them; but if the State or municipal authorities shall fail or refuse to enforce said rules and regulations, the President shall execute and enforce the same and adopt such measures as in his judgment shall be necessary to prevent the introduction or spread of such diseases, and may detail or appoint officers for that purpose.

Sec. 22. That whenever the proper authorities of a State shall surrender to the United States the use of the buildings and disinfecting apparatus at a State quarantine station, the Commission shall cause an examination thereof to be made by its own members or by a competent person, or persons, and if the said station, buildings, and disinfecting apparatus be found adapted to the purposes of a quarantine, and the Commission approve of their use as such, the Secretary of the Treasury shall be authorized to receive them, and to pay a reasonable compensation to the State for their use.

SEC. 23. That all orders, rules, and regulations of the Bureau of Public Health relating to Sanitation in any branch of the Public Service, or to prevent the introduction of contagious and infectious diseases into the United States, and their spread from one State or Territory into another State or Territory, or the District of Columbia, through or by means of any branch of the Public Service, the medical officers of such Service shall execute such orders, rules, and regulations, and to this end the Surgeon-General of the Army shall perform all such duties in respect to the Army, the Surgeon-General of the Navy shall perform all such duties in respect to the Navy, and the Surgeon-General of the Marine Hospital Service shall perform all such duties in respect to quarantine and quarantine regulations which are provided by this act.

SEC. 24. That whenever the Commission shall certify to the President, and it shall appear to his satisfaction that, by reason of the existence of cholera or other infectious or contagious diseases in a foreign country, there is serious danger of the introduction of the same into the United States, and that notwithstanding the quarantine defence this danger is so increased by the introduction of persons or property from such country that a suspension of the right to introduce the same is demanded in the interest of the public health, the President shall have power to prohibit, in whole or in part, the introduction of persons and property from such countries or places as he shall designate, and for such period of time as he may deem necessary.

SEC. 25. That the Bureau of Public Health shall make an annual report of its operations to the Secretary of the Treasury, who shall transmit the same to Congress, with such recommendations as he may deem important to the public interests; and said report, if ordered to be printed by Congress, shall be done under the direction of the Board; and that all mail matter of whatever class relative to the Bureau of Public Health and its duties, and addressed to its secretary and indorsed "Official Business, Bureau of Public Health," shall be transported free of postage; and if any person shall make use of any such indorsement to avoid the payment of postage on his private letter, package, or other matter in the mail, the person so offending shall be guilty of a misdemeanor, and be subject to a fine of five hundred dollars, to be prosecuted in any Court of competent jurisdiction.

SEC. 26. That there shall be, and hereby is, appropriated, out of any moneys in the Treasury not otherwise appropriated, the sum of one million dollars, to be expended, or so much of the same as may be necessary from time to time, under the direction of the President and according to his discretion, to meet emergencies arising in the execution of the provisions of this act.

SEC. 27. Repealing Section.

Victims to Duty.—*The Lancet* says: "One more name has to be added to the roll of those young members of our profession who have perished on the threshold of a promising career, while actually engaged in the attempt to save the lives of others. We regret to learn that Mr. W. F. Lucas, casualty medical officer to the Middlesex Hospital, died in that institution on Monday last from diphtheria contracted in the discharge of his duties." *The Boston Medical and Surgical Journal* adds this: "Every physician knows many instances where his professional comrades have fallen by his side, struck down by infectious fevers or septic absorption received at the bedside of a patient. Notable instances have recently brought this peril afresh to our minds. A contemporary journal, in the last issue, records the death of a practising physician who caught the infection of yellow fever from a patient whom he was attending, and also the death of a promising young doctor to whom the infection of typhoid fever was communicated from a child patient at the New York Hospital. Last week it was our melancholy duty to report the death of a brilliant young physician of unusual qualities of mind and heart, who caught diphtheria from a patient at the Boston City Hospital."

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE PATHOLOGICAL SOCIETY—DR. PAVY'S ADDRESS—HE REJECTS THE GLYCOGENIC THEORY OF DIABETES—EXHIBITION OF SPECIMENS — THE CLINICAL SOCIETY — MR. HULKE'S ADDRESS—SURGERY OF THE ALIMENTARY CANAL —MR. ROBSON'S CASES OF ADHESIONS RELIEVED BY OPERATION — DISCUSSION ON THESE CASES — MALIGNANT TUMORS OF LARGE INTESTINE—FELLOW OF THE COLLEGE OF SURGEONS—KEELEY'S LAW PROCEEDINGS—CHOLERAIC DIARRHŒA.

LONDON, October 14, 1893.

THE session of the Pathological Society was opened on Tuesday evening, when Dr. Pavy, the new president, delivered an address in which he urged the importance of chemical pathology and assured those who would take up research into this department of an abundant harvest. The three fundamental properties of protoplasm, he said, were: *a*, It started from previously existing matter; *b*, under suitable conditions it was endowed with power to shape itself into some determinate form; *c*, it would bring about chemical changes in matter in its neighborhood. Modifications of the surroundings of protoplasm could give rise to deviations which are within the province of pathology. He then dealt with the case of diabetes as an instance, for here we have elimination of sugar in a manner that should not occur. In normal conditions carbohydrates taken into the system are lost sight of, but in diabetes pass off in the urine in proportion to the amount ingested. The common belief in the conveyance of sugar to the capillaries for destruction, Dr. Pavy declared, leads into darkness, and the accepted physiology, he said, is untenable. Study and experiment convinced him that the glycogenic doctrine is wrong. The liver is not charged with sugar, holds no more than other parts—not so much as some. Blood coming from the liver contains no more than that going to it; in fact, after food, the portal blood is richer in sugar than that in the hepatic vein. The normal constitutional blood contains 0.6 to 1.0 per 1,000 of sugar; while we often find 5 per 1,000 or more in the portal blood. To the cells of the villi and of the liver he attributed a "protoplasmic power" (whatever that may be) by the exercise of which carbohydrates are converted into proteids and through them into fat, and the failure of such conversion results in diabetes.

After the address specimens were exhibited and commented on of congenital deformity of the lip; pyonephrosis of the kidney with double ureter; congenital interruption of the duodenum with dilatation; a similar interruption at the termination of the jejunum, which was greatly distended; a congenital deficiency in the middle of the œsophagus, in which the pharynx ended blindly.

Mr. Hulke, as president, opened the session of the Clinical Society on the 13th inst. with a brief address in which he glanced at the progress made in the several departments of medicine. Referring to the early volumes of the "Transactions" and his own early experience, he pointed out how imperfectly asepsis was then understood by a few and how completely ignored by the majority, in proof of which he gave a realistic description of the state of one of the great hospitals at that time. He then urged that the strictest attention to method, and the most scrupulous observance of detail were nearly if not quite as important as the choice of an agent. He then directed attention to the last few volumes of the "Transactions" as containing a number of cases of surgical measures for treating diseases and injuries of the alimentary canal. He thought the serious mortality of some of these operations was often due to the late period to which they were postponed, and this particularly in cases of gradual but progressive narrowing of the tube. As to excision of the

vermiform appendix, he held that in many instances it was better to freely open, empty, and drain the abscess than to attempt a methodical removal of the appendix. The address, which was listened to with the attention due to Mr. Hulke's position and experience, was a very appropriate prelude to the papers brought forward after its conclusion.

Mr. Mayo Robson then gave an account of two cases of dilatation of the stomach dependent on pyloric adhesions. One case seemed to have arisen from gall-stones, the other from gastric ulcer. He brought forward these cases because it is not generally recognized that dilatation of the stomach may be cured by separating such adhesions, though it is well known that serious symptoms may be produced by them. He laid special stress on severe abdominal pain and visceral disability being produced by adhesions and cured by their separation, and was disposed, when medical treatment had been fully tried without benefit, to open the abdomen and then proceed as might be found desirable. He thought many cases called neuroses are due to such conditions as distorted or tied appendix, displaced ovaries or tubes, or both, omental adhesions in great variety, producing visceral distortion, all cases which may be cured or relieved by laparotomy without any mutilation of viscera.

The President congratulated Mr. Robson on his success, but thought that adhesions might be easy to separate, but that it would be difficult to prevent their recurrence, and when they had been caused by ulceration they might be the only barrier to perforation and so their separation would be perilous.

Dr. F. Roberts attached much importance to adhesions, both in the chest and abdomen. His students regard it as one of his fads. He had not seen them treated by surgery. He had met with cases, however, cured by laparotomy when the supposed cause was not found, and mentioned one he had diagnosed as gall-stones, in which the surgeon who operated found nothing, but the patient was cured.

Dr. H. White mentioned an autopsy he had performed on a case supposed to be malignant, but which was due to a gall-stone ulcerating through the pylorus, and would probably have been saved by an operation at an earlier period. He also mentioned a case of typhlitis which recovered under ordinary treatment, but some months later ovarian symptoms led to a suspicion that the appendix was adherent to the ovary. Exploration showed the suspicion to be correct. Appendix and ovary were removed and all symptoms disappeared.

Mr. P. Gould enquired how the author made out that there was no narrowing of the pylorus, and remarked that as cases were cured by operation when no adhesions were found, it was clear the symptoms did not always depend on their existence. Moreover sometimes it is desirable to cause rather than prevent adhesions—as for instance in movable kidney.

Mr. Robson in reply said there was severe peritonitis in both his cases; he grasped the pylorus to ascertain if it was enlarged and rolled it between his fingers to feel the internal surfaces glide over each other and this fairly indicated the state of the passage; if thickened and hard the pylorus might resemble malignant growth; to prevent recurrence of adhesions he placed the parts at some distance from each other when practicable, carefully stopped bleeding and wiped them dry after applying antiseptics, and so reduced the risk as far as possible. In operating for gall-stones he thought the separation of adhesions often had more to do with relief than removing the stone. Impacted gall-stone is sure to set up local peritonitis, and if he found none he scarcely ever found the stone. He had seen cases recover in which only a little ascitic fluid was let out, but offered no explanation, though he expected these curious cases would some day be explained.

Mr. W. Edmunds then read two cases of excision of malignant tumor from the large intestine in men of fifty and fifty-four respectively. Both remain well, one fifteen months the other four years after the operation. Halsted's method was preferred to Senn's, and seemed to find favor with the other surgeons present. The liquid state of the fæces in right colotomies was commented on, and Mr. Edmunds remarked that the function of the large intestine was perhaps to convert liquid into solid fæces. In support of this Mr. Robson said in a case in which he found a malignant tumor in the ascending colon which he was unable to remove, he brought up the distended ileum and opened it after twelve hours. The escape of liquid fæces was such a trial to the patient that a month afterward the abdomen was again opened and the ileum fixed to the sigmoid flexure, and the patient has remained in such good health as to decline further interference.

Some of the Fellows of the Royal College of Surgeons are elated at the triumph they think the Association of Fellows have obtained over the obstructives of the Council. The council have at length appointed a committee to consider the desirability of convening meetings of Fellows apart from members, and if deemed desirable to formulate a scheme. The Fellows are but a small body while the members number thousands. The Association of Fellows need scarcely be feared—it consists for the most part of Fellows who subscribe their guinea, but leave all work to their committee. One of them confessed to me that at a late meeting only one non-official Fellow was present.

You may be interested to hear that Dr. Keeley has withdrawn from the actions for libel he commenced against the medical journals here, on account of their criticisms of his alleged cure for the drink crave.

There has been an outbreak of choleraic diarrhœa at Greenwich workhouse which at first caused some anxiety, as comma bacilli were found, but cultivations of these failed and so bacteriologists tell us the disease was not true cholera. Clinicians would tell us as much because rice-water evacuations and other symptoms of cholera were absent and the mortality was very low.

OUR BERLIN LETTER.

THE NATURAL SCIENTISTS' MEETING—PROFESSOR HIS REGARDING THE MANNER OF BUILDING UP OF THE NERVOUS SYSTEM—PROFESSOR STRÜMPELL ON ALCOHOLISM—PROFESSOR HÜPPE ON THE CAUSES OF FERMENTATION AND INFECTIOUS DISEASES.

BERLIN, October 1, 1893.

THE sixty-fifth anniversary of German Scientists and Physicians has just taken place at Nürnberg. Last year the meeting was postponed owing to the prevalence of cholera, and the holding of this meeting looked also rather doubtful, owing to the existing cholera epidemic. It has taken place, however, and some of our greatest scientists met and discussed the most important problems of the day. It was so arranged that among the twenty different sections each and every branch of medicine and science was amply discussed. The enormous amount of literature prevents me from giving you what I consider the most important items. I shall promise, however, to give you all forthcoming important points when officially printed.

The first paper was by Professor His (Leipsic) on the "Construction of our Nervous System."

He said every nerve-fibre emanating from a central organ comes as a continued axis from a nerve-cell. The end coming from the cell runs as a rule free, and is surrounded by a bundle of branching nerve ends or nerve-fibres. The majority of the nerve-cells, besides sending out the never-fibre, which is a direct continuation of this nerve-cell, gives out a so-called protoplasma-continuations, or "dandriten," which terminates singly. The sensory fibres do not shoot from cells in the brain or spinal cord, but are bound together with the so-called spinal ganglion, with which they appear to be allied laterally.

The central portion of the sensory fibre (nerve) divides

on entering the marrow into two, and later into more fibres, which, so far as they can be followed, continue singly; and in the same way the periphery of the sensory fibre ends in free fibres. Accordingly the nervous system is composed of numerous fibres, divided, separated, and ending in cells of so called neuronen.

In the gray matter of the brain and spinal cord these endless branches unite to form a thick felt, but no network. The continual relationship of all the nerve elements within the gray substance, which has hitherto always been accepted, does not exist. The coaptation is in reality not marked, as each single fibre proves itself distinct and independent of the others.

This tends to prove that within the gray substance of the marrow the transmission of the current is brought about from one system to the other through intermediate transmitters.

At the same time there exist certain anatomical peculiarities which tend to regulate currents transmitted.

We find that several end fibres seem to be interwoven, and seem to act in some way on the one hand, while we find that the end-fibres of another bundle of nerves seem to me united basket-like on the other hand. But the nerve-cell seems to be the point of union of all currents transmitted. The further propagation of the current seems to be in the direction of the nerve-fibre emanating from the nerve-cell.

This we find in the motor centres of spinal cord and the pyramidal cells of the brain. Opposed to these latter appear the dandoide cells, which are like a collection of roots, and seem to gather currents from all directions, and then transmit them to the nerve-cell.

Of great importance appear the collateralen in which a single nerve is able to control a large area by means of diffused cell areas. It is only since we know the course of sensory fibres, which on traversing different tracts toward the brain have numerous side branches which connect with the motor and sensory centres of the spine, and thus it is that reflex action can be caused or sensation felt through one and the same nerve.

Professor Strümpell (Erlangen) read a paper on the alcohol question from a medical stand-point. He detailed the popular and legal aspects of the alcoholic question, giving the subject of crime considerable weight. He cited the ideas of the connection of both, and believed crime to be the cause of alcoholic debaucheries. Of 1,130 people sentenced for crime in 1889, in Germany, 750 were so called drinking people, and 150 habitual drunkards; the other 600 went on periodical sprees. Popularly it is believed that beer contains an enormous quantity of nutrition. Let us inquire into this by comparing the price of food with drink: If a Bavarian workman drinks 4 litres of beer daily, equivalent to 5 pints, he receives in round numbers about two hundred and forty grammes carbohydrates and 32 grammes albuminoids. If he consumes bread costing one mark, he receives 2,000 grammes carbohydrates and 250 grammes of digestible albumin. Here can be seen the fallacy of the workman in giving almost one-sixth of his wages for beer daily.

Hundreds of students consume one to one and one-half mark daily of beer, and thousands of apparently poor people would suddenly be enriched if a check to the sale of beer were suddenly given. Physicians find that next to tuberculosis—lues—chronic alcoholism is the most wide-spread disease. As in chronic lead-poisoning, there is in alcoholism a slow but constant accumulative effect until the disease suddenly appears very vigorously. In lead poisoning we find paralysis of the hands; in alcoholism cardiac paralysis, diabetes, and gout, depending on the peculiar predisposition of the individual.

But this condition does not only come when the individual is an habitual drunkard, but also when the individual would resent any reference to his being addicted to liquor. In acute alcoholic poisoning we have a weakening of the nervous system, especially manifest in the motor nerves, in the irregular gait, and the difficult articulation.

But chronic alcoholism manifests peculiar neurotic disturbances, as polyneuritis, for example, and the well-known delirium tremens. But the latter is not very common, save in large cities, among laboring classes imbibing whiskey excessively. Besides the nerves, the stomach and intestines are the next to suffer, and in consequence are unable to perform their required functions because of the irritation caused by the alcohol. Very severe complications arise when alcohol is distributed into the circulation, reaching the capillaries, causing cirrhotic conditions in the liver, heart, and kidneys.

Certain detrimental actions of whiskey have caused beer to be the substitute; but again beer can act harmfully because of the large quantities imbibed, and as an abnormal quantity of food is eaten it sometimes happens that more food enters the nutrient cells than they require, giving, instead of nutrition, a balance of fat. And this latter is the real poisoning results of alcohol. Especially is this true with the kidneys, when large quantities of fluid are imbibed.

An acute alcoholic nephritis is usually caused by chronic alcoholism, and, in other cases slow alcoholic poisoning gives rise to gout, diabetes, and fatty enlargement. Although the last-named diseases are caused by other influences, still the cases caused by alcohol are so numerous as to give cause for alarm and for action on the part of the physician. The family physician should see to it that excessive drinking be not tolerated, and he should prohibit the use of the same in children. Here the author gave numerous instances of blame on the part of parents in feeding children with alcohol.

In the last meeting Professor Hüppe (Prag) read a paper on the "Causes of Fermentation and Infectious Diseases, and their Relationship to Energy." The paper gave an outline of the older ideas of cause and effect, in which a certain something was called the cause, and the disease the effect. To day we recognize the specific causes of disease as described from a bacteriological stand-point. We have now learned that zygomenic, chromogenic, pathogenic bacteria are all widely different one from the other.

The speaker mentioned the fact that an Algerian sheep, although immune against a certain quantity of anthrax, will, however, succumb to an increased dose of same. The chicken will die after a large quantity of chicken-cholera germs are introduced, whereas the guinea pig will die after a very small inoculation, which would not affect a chicken. The dog will succumb to a large quantity of tubercle bacilli, whereas he will not react against small quantities. So we find it to be a question of quantity—not quality. Example: Ordinary milk will turn at the presence of lactic ferment, but it will require a large amount to completely sour the milk and keep up an active fermentation. From what he said he concluded with the remark that in order that infectious diseases or infections shall take place there must be some disturbances in the physiological functions in order to make room for pathogenic functions.

Whortleberry Leaves in the Treatment of Diabetes.—Dr. R. Weil (*Hospitals-Tidende*, No. 7, 1893) recommends whortleberry leaves in diabetes mellitus, as an efficacious and uninjurious remedy. They should be gathered before fruit-bearing sets in. Dr. Weil learned their use from a peasant. Two handfuls of the leaves are boiled with two quarts of water down to a quart. He now employs the extract in the form of pills, each containing 12 ctgr. (2 grs.), which corresponds to 12 gm. (3 dr.) of the leaves. First one pill three times a day is taken, after which they may be gradually increased in quantity to five pills three times a day. In the writer's patients he has observed an extraordinarily prompt and lasting action. The quantity of sugar can only be determined by polarization or fermentation, as, after using the remedy for some time, the urine contains certain reducing substances.—PRITCHARD.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending October 28, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	33	20
Scarlet fever	76	4
Cerebro-spinal meningitis	4	4
Measles	88	2
Diphtheria	187	45
Small-pox	7	2
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

Hospital Accommodation on the Man of War "New York."—The *Brooklyn Eagle* very pertinently says: "Her solitary and monumental defect is in the fact of the grossly and grotesquely inadequate accommodations for the care of the wounded, the sick, or the suffering, whether from causes of war or of peace. The ship's hospital is on the third deck from the top, called the berth-deck, at the extreme bow or forward part of the ship. The dimensions are miserably small. The room is an irregular triangle, twenty feet on its longest side, and fifteen and twenty on its two other sides. In it there is space to swing only two hammocks or sick-cots, and the place is so surrounded by some of the operative machinery of the ship as will render it in action or in motion a constant centre of noise of the most intolerable kind to the sensibilities of any patient. There are two mammoth steel tubes, technically called hawse-pipes, at the end of this sick-room. Through them by machinery run the anchor chains or cables of the ship. These chains are as large in size as a man's leg and of very great length. The noise made by these chains in operation is as great as that of a boiler factory, and in volume equal to ten calliopes. Right in front of this hospital or sick-bay is the torpedo room. All the work in using torpedoes will be distinctly audible in the hospital, and the effect of such noise and distraction can be readily imagined. The hospital is the only passageway to the torpedo room from the rest of the ship. The blunder of placing the hospital where it is, and the miserably small accommodations for hospital purposes, are a blot on naval construction, a parody on medical science, and an outrage on humanity. This blot, if it is not removed, will grow from a reflection on naval construction into an indictment and a shame on naval administration. If Hilary A. Herbert, the secretary of the navy, or William McAdoo, the assistant secretary of the navy, who are sensible and humane laymen, could see this abomination just as it is, their sleep would be tormented with reproaches until they gave orders for its reform and saw that the orders were carried out. The bureau of medicine and surgery of the navy cannot possibly approve of such a condition of things. If it is aware of them, it must, from the commonest premises of science and of decency, have protested against them. If its protest has been ignored, the shame for that fact must be due to the absence of any representative of the medical department of the navy from the board whose authority in the construction of vessels of war is final."

The Work of Medical Missionaries.—"We would be untrue," says *The Lancet*, "to one of our most honorable traditions if we failed to bring under the notice of the profession the noble work achieved from time to time in the far East, in Equatorial Africa, and indeed in all the remoter haunts of retrograde humanity, by the yearly augmenting band of missionary pioneers who are also duly qualified medical men. Now it is in the interior or on the littoral of China, now in the hill country round Lake Nyassa, that we hear of the progress made by these devoted men in elevating the savage or benighted populations to the standards of the West. No sooner does one of them sink in some generous enterprise than another fills his place and carries on the work to be in turn transmitted to an equally well-inspired successor. Recent mails have been unusually rich in such examples, and a brief record of the harvest reaped by these 'husbandmen of humanity,' with some notice of the means employed and of the men themselves, claims an appropriate niche in a journal from which the due commemoration of medical merit has at no time been withheld. Dr. Daniel Jerome Macgowan, whose parents emigrated from Ulster to North America shortly after the War of Independence, and who was born in Massachusetts in 1815, was for fifty years a medical worker in the field marked out in China by the Southern Baptist Mission. In the course of his life-long exertions he did much to bring the Chinese world into more sympathetic *rapprochement* with that of the West, and in the course of the discharge of the duties connected with his special occupation he was enabled to obtain a profound knowledge of the institutions, the character, the customs and the history of the strangely gifted and perversely governed people among whom his lot was cast. His researches found frequent expression in periodical and permanent publications, and these so impressed his British fellow-workers with their thoroughness and practical usefulness that our Foreign Office gave him a responsible post at Wenchow, whence he continued till within a few months of his death to enlarge the stores of knowledge, scientific and historical, which he had already amassed. An expedition which was undertaken to North China and the Great Wall in his seventy-ninth year proved to be beyond his strength, and on his return he was so enfeebled that he passed away peacefully on July 21st. Not only China, but Siberia and Japan, were included in his explorations; whilst his papers, embodying the scientific result of these efforts, will long be remembered as being honorable alike to the cause in which he compiled them and to the branch of the profession to which he belonged. A worthy successor in his footsteps, Mr. William Pirie, of Arbroath, entered on the same career two years ago, and he was even thus early acquiring an exemplary reputation for ability, energy, and self-sacrifice, when, as an intimation which has lately been received by the Church of Scotland Foreign Mission Committee tells us, he succumbed at Tchang amidst the deep regrets of the people among whom he worked and the friends who had watched his success."

Theobromine in Dropsy (*Le Progrès Médical*, August 5, 1893).—At the sitting of the Academy of Medicine, on August 1st, at Paris, M. Germain Sée reported seven observations on cases of dropsy healed by this drug with perfect success. It is an active diuretic, and is given in pills or cachets in doses of five to seven grains. Four doses the first day, six the second, eight the third, and ten the fourth. It should be given alone, and its effect maintained by the use of digitaline when its use is discontinued. Whatever may be the form of the cardiac lesion, it will be found to be efficient *quoad* the dropsy.

Treatment of Tuberculous Peritonitis.—Nolen (*Berlin klin. Woch.*, August 21, 1893) describes a new method. He would attribute any good results obtained by laparotomy to (1) the circulatory changes produced by the evacuation of fluid, and (2) the contact of air. He does not think that light has any effect. The author has accordingly practised tapping, with subsequent insufflation of air, after satisfying himself that there was no danger in this procedure. This treatment was tried in three cases, in two of which the results were very good. In the other advanced case (combined with intestinal tuberculosis) the ascites did not reappear, but the patient died eight weeks later. An apparatus is described by which air forced through sterilized cotton-wool, and then

through a flask containing sterilized water, is injected into the abdominal cavity after the fluid has been withdrawn. The apparatus is, of course, sterilized. The insufflation causes no pain, and does not give rise to any unpleasant result.

Ethyl Iodide is a drug which is periodically brought to the attention of the profession, but is not used largely, perhaps because of its volatility and expense. Dr. S. S. Cohen (*Medical News*) says of it: "In any case in which the local effect of iodine upon the air-passages is desired, or in which it is necessary to get a constitutional iodine effect, without resort to the stomach, the inhalation of ethyl iodide offers a convenient and effective means of accomplishing the purpose. It is thus of use in syphilis, and especially in cases of syphilitic inflammation or ulceration of the nose, mouth, and throat. It is of great benefit in tuberculosis of the larynx, and in pulmonary tuberculosis, at any stage of the disease, but especially when local stimulation and disinfection are desired. In subacute and chronic nasal catarrh, in some cases of hay fever, in subacute laryngitis and subacute bronchitis, and in chronic laryngitis and chronic bronchitis, when a sedative, sorbefacient, and disinfecting agent is desired, inhalation of a mixture of equal parts of terebene and ethyl iodide gives most satisfactory results. Ethyl iodide is extremely useful in ozæna and in fetid bronchorrhœa. It has been employed with apparent benefit in asthma, and in acute croupous pneumonia and acute broncho-pneumonia of various types. In one case of whooping-cough in an adult, it was apparently of service. It may be introduced into the Eustachian tubes and middle ear by means of a Politzer bag and catheter. To get the full benefit of the drug it must be used frequently and persistently. Thus, in cases of pulmonary tuberculosis, I have had patients keep up the daily inhalation for two, three, or more years. While in cases of active disease the inhalations are sometimes practised so often as every half-hour, in convalescent cases, or in cases of tuberculosis not showing active progress of lesions, the intervals are proportionately lengthened. Two hours constitute the average interval. Three times daily are sufficient in some cases. Some patients can inhale the vapor of ethyl iodide for ten or fifteen minutes without experiencing unpleasant effects. Others feel slight vertigo after inhaling for a minute or two. Ordinarily, I tell the patient to inhale for five minutes, unless vertigo is produced.

Alleged Intra-uterine Poisoning.—At a house in the neighborhood of Londonderry some tartar emetic was one day supplied by a chemist in mistake for tartaric acid, and used to make a summer drink. Of this, on August 8th, some twelve people partook, and all were more or less ill after it; among them was a woman far advanced in pregnancy. She vomited and felt cold about half an hour after taking the drink, and was obliged to go to bed, but the next day was practically well again. On August 21st, thirteen days afterward, she gave birth to a male child at the full term; the child seemed well and strong, and vomited once on the second day. It died on the evening of August 26th, aged five days, from convulsions. It was well until the preceding midnight, when it awoke and had stiffness of its jaw, and after that it had diarrhœa, vomiting, and convulsions up to the time of its death. An inquest was ordered, and the body was exhumed six days later and the viscera submitted to Dr. Leebody, who found traces of antimony in the liver and kidneys, amounting in all to one-fifth of a grain, but none elsewhere; he considered that the presence of the antimony was due to intra-uterine absorption, and declined to express an opinion one way or the other as to its being the cause of death. Dr. Steele, the dispensary doctor, who saw the child *in articulo mortis*, and made the necropsy, was convinced that death was due to antimonial poisoning, and the jury took his view and gave a verdict to that effect. In view of the fact that the woman was practically well for twelve days after taking the poison, before her confinement, and that the infant showed no symptoms of antimonial poisoning for the first four days of its life, it is not at all certain, the *British Medical Journal* says, that its death had anything to do with the tartar emetic, although the discovery of a minute quantity in the liver and kidneys is quite consistent with its having been absorbed *in utero*, as the time required for the complete elimination is known to be considerable. The case is, however, of considerable medico-legal importance, even though it be not regarded as an instance of antimonial poisoning.

The Antirheumatic Ring.—A writer in *Science Siftings* says that two thousand years ago the Greeks believed that there was virtue in finger rings as against rheumatism. Galen, in the second century, gave heed to some of the popular fancies of that day, and recommended a ring of jasper with an intaglio of a male figure wearing about his neck a bunch of herbs. Marcellus, in the time of Marcus Aurelius, prescribed a ring of pure gold, with certain Greek letters inscribed thereon, to be worn for pain in the side; the circlet was directed to be worn on the side opposite to the pain. The decrease of the moon was propitious to the plan of cure. "And these rings," says the writer, "had quite as much medical value as those that are now being sold for the relief of rheumatism."

The Feeding of Infants.—Hauser (*Berl. klin. Woch.*, August 14, 1893) describes a new method. He first refers to the well-known objections to a wet-nurse, and the difficulties in artificial feeding. The author has used, in Henoch's clinic and elsewhere, a preparation introduced by Reith, in which, after the smaller quantities of fat and sugar in cow's milk have been corrected by the addition of cream and milk sugar, egg albumin, heated above 130° C., is made to supply the deficiency in albumin. The preparation has the same composition as woman's milk, and is called albumin milk ("Eiweissmilch"), but would be more correctly named albumose milk. The difference between this and ordinary milk, when subjected to artificial digestion, is obvious. If feeding with cow's milk properly prepared and sterilized does not suit, the author uses this preparation. Medicinal agents are not employed, and washing out the stomach is rarely necessary. There are two classes of cases, (1) those in which cow's milk properly prepared seems to suit, and yet the infants do not thrive, and (2) those with dyspepsia, etc. Some sixty infants were treated with this preparation, and the author has now used it for one year and a half. The infants take it well, vomiting ceases even in those in whom other preparations have failed, and the weight increases. It is given in small quantities, and cold in bad cases. The stools become healthy and regular, but they may be offensive, owing to the sulphur in the albumoses. Failure is rare. This preparation is also useful in acute illnesses, in rickets, and some other diseases of children. Infants with whom mother's milk does not agree take it well. Older infants also thrive on it. Cow's milk may be added to it until pure milk feeding is arrived at.

The Human Body in Pharmacy.—Human fat passed for an excellent remedy against rheumatism, and the executioners most often turned criminal skulls over to the apothecary. Listen to the words of the illustrious Pierre Pomet: "We sell human axungia that we make, and which is derived from various sources. But, as we know, at Paris it is only sold to those that have need of it, and but little is given out; nevertheless, those who buy it have it prepared with aromatic herbs, which is much better than the kind coming from the public executioners." Human oils, the salty extracts of the blood and saliva, hair, toe-nails, urine, and human excrement have also been used in medicine extensively. Moïse Charras, in his "Royal Pharmacopœia," shows how to obtain these agents, and adds: "Man's dung, to which some have given the name of *occidental civet*, on account of its aroma, when dried in the sun changes its bad odor and

has many medicinal virtues. Distilled in a retort, we obtain an oil that is particularly recommended for the cure of erysipelas and other skin diseases." Charras likewise taught his pupils how to distil the after-births of women, an admirable remedy that Lemery recommended without reserve. "It is preferable," wrote Charras, "to take that which comes after a boy is born. This after-birth must be chosen from a young, vigorous, and healthy woman; she should likewise be beautiful. This after-birth, applied to one's face, will remove moles. Dried and powdered, it is a remedy against epilepsy; it likewise hastens labor. The dose is from one-half to two scruples." Remedies of this kind were common, and one often used was the essence of the spirit of urine. "The extract of urine drawn from young persons and taken with wine; it cures apoplexy, epilepsy, convulsions, etc.; mixed with balsam it is a sovereign remedy against hysteria." Madame de Sévigné frequently used this medicine, and writing to her daughter, on June 13, 1685, she says: "My blues have led me to take eight drops of essence of urine, and, contrary to its usual manner of acting, I was prevented from sleeping. But I am happy to state the esteem in which I hold this remedy. I have not needed a dose since."—*Cincinnati Lancet and Clinic.*

The Origin of Circumcision.—*La Médicine moderne* states that at a recent session of the Paris Society of Anthropology the question of the origin of circumcision was discussed. M. Letourneau recalled the custom of the Egyptians of practising phallotomy on the vanquished. This custom still prevails in our day among the Abyssinians. Every warrior who has killed an enemy, says James Bruce, presents to the chief a bloody prepuce. The ceremony being concluded, each warrior gets back his bloody trophy, and, taking it home with him, prepares it in the same fashion the Indians employ for scalps. This custom existed among the Hebrews, and to become the son-in-law of Saul, David had to bring in the foreskins of a hundred Philistines. Ritual circumcision is thus derived, and was an act of homage to God. The usage of offering portions of the body to the gods has been and is yet very wide-spread. It is a symbol of a complete sacrifice that has become partial by the lessening rigor of morals. It is thus that blood or the fingers were offered, or the sacrifice of their hair, by the early Christians.

Ipecacuanha in Hæmatemesis.—Dr. C. Burland writes to the *Lancet:* "The use of ipecacuanha in dysentery, both acute and chronic, and in various kinds of hemorrhage occurring in other parts than the bowel, such as the lungs and uterus, has been discussed in all the modern text-books on Materia Medica, but the treatment of hæmatesis by the drug is not insisted on or mentioned. The treatment which I found to be remarkably successful in the following cases has probably not been attempted, from fear that the emetic action of ipecacuanha might seriously increase the discharge of blood. It has generally been customary to give some sedative to the stomach, such as opium, before administering the large doses which are given in cases of acute dysentery, and this has evidently been thought to be necessary to avoid or control the emetic action of ipecacuanha. In my own practice in the East, where I have treated cases of dysentery for some years, I have seldom found the previous use of sedatives to be necessary, though at times it has been imperative on account of the exhausted condition of the patient, and I have dreaded the possibility of any vomiting with accompanying syncope." Dr. Burland then reports three cases and adds these specific directions: "I have selected these three cases on account of their exceptional severity. I would emphasize the necessity of keeping the patient motionless, with the spine arched forward by means of hard pillows placed beneath the dorsal column. Nothing whatever should be given by the mouth except the ipecacuanha; this should be fresh, and a few drops of tincture of opium ought to be added to sufficient glycerine to mould a mass into bolus. Especial care should be taken that no fluid is given either by the mouth or the rectum for at least two hours after the administration of the drugs. The patient's strength should be supported by nutrient peptonized enemata, and stimulants should be taken in the same manner. Brandy given by the mouth is almost invariably rejected and keeps up the vomiting. I am persuaded that in ipecacuanha administered with the precautions I have named there exists a remedy of singular potency in the treatment of hæmatemesis." The drug was used in doses of one drachm.

Telegony.—This is a term, says *Nature*, which Professor Weismann has recently coined to designate a class of phenomena which have thus far been pretty generally accepted as of unquestionable occurrence in mammals, if not also in birds, viz., the alleged influence of a previous sire on the progeny of a subsequent one by the same mother. Students of physiology are familiar with the instance of a certain mare who was covered by a quagga, and whose subsequent offspring presented unquestionable quagga marks. Within the last twelve months another seemingly unmistakable case of telegony has occurred in the Zoölogical Gardens, the first foal being a hybrid between two species of ass, and the second by a male of the same species as the mother. Most breeders and fanciers are so persuaded of the truth of "telegony" as to deem a pedigree animal seriously deteriorated in value if she has been covered by an inferior male, and even Darwin thought "there could be no doubt" as to the fact of this influence of a previous sire being occasionally exhibited in mammals. Professor Weismann, however, challenges the facts, but Professor Romanes has vouchsafed a number of instances plus an explanation in support of the existing view. There is so much margin for mere coincidence in matters such as this that unless the influence can be shown to be tolerably constant one is at liberty to ascribe the occasional traces of the influence of a previous sire to mere accident. If real then, the influence ought to be taken into consideration in arranging for the second and subsequent marriages of widows. Fortunately, there is every reason to believe that, even if real, the influence is only exercised when the successive impregnations take place within a comparatively short time of each other.

Our Consul at Bagdad is a most worthy physician, and a man of exceptional intelligence and scientific attainments. From Bagdad there is shipped annually to the United States between five and ten million pounds of wool. According to our Government regulations this wool must be disinfected, a labor that requires some four hundred trips to the disinfecting station from the consulate, and an equivalent of two hundred or more hours of active labor in a temperature of 120° F., or higher. For this frightful drudgery, to keep us from being cholera-stricken, the entire salary or fees will be $100 or less. This we glean from a private letter from our colleague. It is outrageously shameful that such a thing should be allowed. Dr. Sundberg is in his own way doing a vast amount of medical missionary work in this wretched place, whither he has been driven by his scientific zeal. There is no salary attached to his consular office. Is it not possible to make the office a salaried one, or to do something to help a noble physician struggling under adversity and in want, in order that we may be healthy?—*Medical News.*

Phenyl Cocain is made by mixing equal parts of cocain and carbolic acid, then dissolving the mixture in oil. It is said to be an excellent analgenic.

The Toad in Therapeutics.—Dr. Lauder Brunton, in his recent address to the Pharmaceutical Society, mentioned that phrynin has an action resembling digitalis, and he also remarked: "It is quite possible that some of these days we may have an enterprising firm advertising essences of toad as being of superlative virtue for the cure of dropsy."

Tuberous Chorditis.—In the recently published supplement to "Wood's Reference Handbook of the Medical Sciences," a work by the way which reflects renewed credit on the editorial skill of its learned editor, Dr. Buck, there is an article by Dr. Clarence C. Rice on chorditis tuberosa. The article is one of especial interest, since it describes what may be considered one of the new diseases, or, at least, a disease of modern public life. Chorditis tuberosa was first described by Türck, in 1866, his description being based on four cases. Later authors, if we except Dr. Rice, have not added much to Türck's original description. Tuberous chorditis is a peculiar laryngeal disorder always associated with catarrhal inflammation of the larynx, and characterized by the formation of a small whitish nodule upon one or both of the vocal bands. It occurs almost entirely in public speakers, actors, and singers. A celebrated *diva* suggested the lay view of the pathology of the affection when its laryngoscopic appearance had been described to her, by saying: "Why, I should say I had corns on my vocal bands." The observation was hardly correct, since the corn is purely epiblastic, while, in the tubercle, there is also a connective tissue hyperplasia. The affection is caused by excessive use of the voice, and particularly by bad methods of singing. It seems to occur oftenest in women and among sopranos. Among Dr. Rice's eight cases, six were women and were soprano singers. The nodule is small, situated near the middle of the chord, and is attached near its edge. There is always some congestion of the parts, and this may render its presence difficult to detect, except with a strong illumination. A person who has one nodule is very liable in time to have a second developed symmetrically upon the other chord.

The symptoms of tuberous chorditis are hoarseness and impairment in vocalization. The singer finds it difficult to produce clear notes, and unusually severe efforts have to be made, with the result of increasing the congestion and catarrh. The treatment consists in enforcing rest, and in correcting faulty methods of singing or speaking. Attention must be paid to the general condition of the nose and throat. Finally the nodule must be removed if possible by a guillotine knife, or caustic.

Strychnine and Picrotoxin.—Keener recommends the treatment of alcoholism by subcutaneous injections of the following solution:

		Grammes.
Nitrate of strychnine	gr. ij	(0.12).
Picrotoxin	gr. j.	(0.06).
Boiling water	ʒ j.	(30.00).

In the beginning about ten drops are injected, and the dose is increased by two drops at each injection, until the time when a slight dizziness or a constriction of the throat is felt by the patient after the injection; this usually occurs after an injection of from sixteen to twenty drops. The dose is then to be diminished until the cessation of the above-mentioned symptoms; the dose thus reached being continued until symptoms of intoxication again occur, which is generally the case after from seven to ten days. The dose is then very gradually diminished until it only consists of several drops, after which the subcutaneous injections are to be entirely omitted. The following solution is also to be taken internally:

		Grammes.
Bichloride of mercury	gr. i–ij.	(0.06–0.12).
Fluid extract of kola	ʒ j.	(4.00).
Fluid extract of cactus grandiflorus	ʒ j.	(30.00).
Fluid extract of arnica	ʒ iiss.	(10.00).
Tincture of aloes	ʒ ij.	(8.00).
Tincture of India hemp	ʒ ss.	(15.00).
Distilled water, sufficient quantity to make.	ʒ iv.	(120.00).

To be taken in teaspoonful doses every two hours during the day. This is to be continued during the entire period of the injections and for several days after their cessation, after which a tonic of iron, quinine, and strychnine (in any form, perhaps combined with iodide of potassium) is to be taken for one month. Attention must be directed to having the patient's bowels move regularly, and to the fact that a sufficient quantity of urine should be secreted.—*St. Louis Medical and Surgical Journal*, June, 1893.

Figure-heads in the Programmes of Medical Congresses.—Complaints are multiplying of the reprehensible practice of announcing as contributors to a proposed medical congress all or many of the great names that it would be desirable to have read papers, regardless of the fact that such persons have not proposed to do so, have not accepted invitations, or have even positively declined to contribute. It may show "enterprise," but "enterprise" is often a euphemism for very contemptible practices.—*Medical News.*

Bagdad Pharmacy.—A correspondent of the *Pacific Medical Journal* gives the following account of the attractive pharmacy of Bagdad: The practice of medicine is in a degraded state, and patients are constantly bargaining with the physician for a cure, and refuse to pay for advice pure and simple or for an examination, no matter how much skill or time it may involve. When a wealthy person is taken ill all the doctors and magicians in the city are sent for an hour or two apart, and without each other's knowledge, and their advice is followed or not, as it suits the fancy of the women neighbors, who always try to pump the doctor by fair means and foul. If a prescription is sent to the drug-store it will probably be put up in an old, unwashed cod liver-oil bottle that has lain perhaps for months in some dirty corner, and then an old rag and some paper is made to do service as cork. This is not overdrawn. Sometimes the prescription may be put up in a cup without any cover at all. The percentage-on-prescription system has here been developed and refined as nowhere else. There are benevolent societies whose secretary receives as salary a certain amount on every prescription he has to settle for, and then he and the doctor agree that a new prescription shall be written for every dose!

The Conduct of Medical Life.—In the course of a recent lecture Dr. Weir Mitchell says: "Character is the true and sure object of a rational existence. Back of this character must be a creed. The practice of medicine is a profession, not merely a business. He who looks upon it commercially, and only thus, is apt to fail of even the mere financial form of success, because it is the peculiarity of our mode of earning a livelihood that it is not and cannot be regarded as a mere business. The more we study the lives of exceptionally successful physicians in all ages, the more clearly will we come to see that the brilliant triumphs have fallen most often to those who had the highest ideals as to what they were dutifully bound to give, rather than what they were in return to get. I am fond of saying that in our work we sell what neither we who sell nor those who buy can weigh or measure. We have no public to which we bend with abject submission, as does the lower newspaper man, most timid of the reptilea; no judge or jury listens to us; no press or public looks on to applaud or condemn. What we do, neither patient nor his friends can fully understand. One silent auditor makes up our moral accounts. That we live and are to live very largely a life of isolated self-judgment, that neither scale nor measure approves the amount and integrity of what we sell—this, I think, should make us doubly careful. I want you to go hence with unattainable ideas of what you mean to make your lives; the higher the better. At all events, have and hold distinct conceptions as to the qualities which make men great in the higher manhood of medicine, and acquire them now. The world may make strange havoc with your views when, as years go on, you are to be guided by them in the every-day work of life. But he is to be pitied who, when young, having no ideals of duty, waits for opportunity to generate a code of conduct."

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RARE FORMS OF GOUT AND RHEUMATISM.[1]

BY SIR JAMES GRANT, M.D., K.C.M.G.,

OTTAWA, CANADA.

MR. PRESIDENT AND GENTLEMEN: This I consider "a red letter day" in my professional life's work, and more particularly from the very fact of having received so generous an invitation, through the secretary of your Association, to read a paper on this auspicious occasion. We Canadians, as a whole, delight in noting the advance of our American neighbors, in almost every line of thought in medical and surgical science. The assembled wisdom of this Association from the State of New York, almost a kingdom in itself, is only an index to the intellectual power to-day at work in almost every State of your prosperous republic. How gratifying it must be to con over such names as Rush, Mott, McDowell, Sims, Gross, Pancoast, Flint, Sayer, Thomas, Emmet, Da Costa, Bowditch, Godell, Pepper, Weir-Mitchell, Bull, McBurney, and a host of others equally great, but too numerous to mention, who by their skill and ability have added lustre to the name of America. To-day I propose offering some observations on rare forms of gout and rheumatism, conditions not by any means frequent, as to their occurrence.

CASE I. *Pneumonic Gout.*—The following brief notes are of a pneumonic form of gout, associated with slight hepatic complication. H. V——, seventy-eight years of age; stout habit of body, not plethoric, but generally vigorous, and accustomed to long hours of arduous official duty; cannot trace gout to his ancestors and always lived well and liberally. February 10, 1893, suddenly seized with acute pain in the right side of chest, opposite the middle lobe of lung, with general malaise and rather severe cough; no excessive flushes in the cheeks; the breathing was somewhat hurried, about thirty per minute; temperature, 101½° to 103° F., and the pulse ranged from 100 to 114. The cough after the first day was associated with the expectoration of a thick, tenacious mucus, and rusty-colored, not uniform, however, in its character, but somewhat patchy as to the distribution of the blood through the tough sputum. The left side moved more freely during the respiratory process than the right, and over and about the seat of pain in right side there was an evident area of dulness on percussion, and yet the breath-sounds were heard with a degree of almost unexpected clearness, with an occasional slight mucous râle. The posterior aspect of the right lung held its ground, kept moderately clear, and in fact the pulmonic trouble was chiefly confined to the lateral and anterior aspect, middle lobe, right lung. Throughout the sputa presented an unusually tenacious character, and up to February 21st exhibited a patchy, rusty, and most peculiar appearance, after which date it became clear, but retained the sticky, glutinous peculiarity up to February 27th, when it subsided. During the entire illness the pain in the side was not of the usual pleuritic type, but more of the burning, throbbing, aching, and piercing pain, and out of all proportion to the ordinary defined pulmonic condition. From his well-known gouty diathesis I was led to believe the attack was really one gouty in character, and informed the friends that metastasis of the lung condition to the feet was not unlikely. On February 22d both feet became very painful and swollen, a condition of system (as to his feet) he had experienced several times during the past ten years. Almost immediately the lung improved in every particular, which quite settled the point as to the gouty character of this attack in the lung tissue as a primary development. Throughout the usual course of treatment was adopted, with the free use of elixir, salicylate of lithia, and lithia water as well. During the entire attack I saw no special indications of hepatic trouble, beyond a degree of uneasiness about the liver generally. Four years ago he had a well-defined attack of jaundice, unattended by anatomical lesion to account for its development; it was of short duration and passed off quickly.

CASE II. *Perityphlitic Gout.*—The same individual whose case I have just cited, was the subject of the following data: September 10, 1892, aged seventy-seven. Almost up to the present attack had been enjoying apparently good health; retired to bed this same evening, and in the middle of the night was suddenly seized with a severe pain in and about the region of the appendix vermiformis, attended with a sensation of throbbing, together with a degree of tension in this particular region which radiated more or less over the entire abdominal walls; considerable heat of skin, with a degree of restlessness, general febrile disturbance, and a sense of uneasiness about the stomach, with occasional vomiting. Temperature, 102° F.; pulse, 116, full and regular. The pain and sensibility of the abdominal wall was chiefly over the ileo-cæcal region. The bowels were constipated and the tongue moderately coated with a moist white fur, pointing to evident gastric derangement for a few days. Knowing the gouty history of this patient for some years, although not of an hereditary type, I suspected from the character of the pain, boring and gnawing, such as I had observed more than once in his feet, that it might prove a case of gout, of which there were well-defined results, such as tissue-thickening about the tarsus and heels of both feet, owing to the deposition of gouty material during past years. The fingers in both hands showed also evidences of disturbed chemistry in the system, resulting in gouty thickening in and about various joints. The bowels, though at once relieved by an enema, still continued painful. Linseed poultices were freely applied, sprinkled with chloroform liniment, and tablets of sulphate of morphia freely administered, to relieve the intense suffering, which was so acute as to almost prohibit the most moderate bed-clothing. Salicylate of lithia and lithia water were freely given so soon as admissible, and the bowels were frequently washed out with warm water, which almost played the part of an internal poultice. The pulse and temperature continued high for fully five days, when both gradually lessened in intensity, and about the sixth day pain was complained of in both feet, particularly about the toes, but not by any means as severe as in the marked metastasis after the attack of pneumonic gout.

At this date there was a marked amelioration in the entire character of the symptoms, the abdomen became more flaccid and much less painful on pressure, and the decidedly cakey area, in the ileo-cæcal region, gradually parted with its suspicious indications. McBurney's appendix point was for days an interesting and instructive lookout, until rendered less attractive by the evident outcome of metastatic gouty action. Undoubtedly there was well-marked and circumscribed induration in the ileo-cæcal area. The precise condition or character of this induration was difficult to define, and yet the rapid

[1] Read at the meeting of the New York State Medical Association, October 11, 1893.

change consequent on metastatic action pointed to gouty deposition in or about the region of the appendix, so peculiar and transitory in its manifestations. At the end of three weeks an excellent recovery was made, and since that date there has been no recurrence of intestinal trouble.

Case III. *Rheumatic Perityphlitis.*—Miss T——, twelve years of age, vigorous and robust habit of body, conformation regular, and organs, as a whole, normal prior to present attack. Of a highly nervous temperament, but usually enjoyed excellent health and spirits. June 1, 1893, complained of pain and sense of uneasiness in her feet, with a general feeling of systemic irritability. June 3d, was suddenly seized with severe pain in the bowels, but more particularly in and about the ileo-cæcal region, where tenderness on pressure was most marked. Fully two days prior to June 1st, a sense of heat and feverishness was experienced, and prior to being under my charge. Temperature, 102½° F.; and pulse, 120. The bowels were at once washed out by a warm water enema, which afforded much relief. Hot linseed poultices applied, and placed on milk diet and an aconite mixture. From June 2d to 8th the pain experienced over the bowels was very considerable, and the tenderness so severe that coughing or stretching of the legs increased the pain in a most marked manner. Turpentine enemata also afforded considerable relief. June 4th there was a decided hardness on moderate pressure over the ileo-cæcal region, which gave one the impression that some tissue change had taken place; and the fact that rigidity in the abdominal walls was more marked on the affected side than on the other, led me to view the condition with a degree of suspicion, although the actual position of hardness was a little lower down than McBurney's point. For fully three days the temperature was over 102° F., on which account suppuration would not be an unlikely result. June 7th, the right shoulder, elbow, and wrist joints exhibited well-defined symptoms of acute articular rheumatism, these parts being painful on pressure, swollen, and moved with difficulty. Just in proportion as these almost outside rheumatic conditions developed, the abdominal symptoms actually lessened in intensity, and on the 10th the entire features of the case evidenced a marked change for the better, no relapse being experienced whatever. The question very naturally arises, What was the attack, and how developed? True, the recognition of appendicitis is not all that is needed.

In this case, almost from the first, there was a localized pain associated with tenderness over the region of the right iliac fossa and ascending colon, with well-defined swelling, and for days the pain was so severe that it was increased at once by coughing or deep inspiration, and the almost constant desire was to elevate both knees to relieve suffering. For days also there was entire inability to take nourishment, owing to attacks of vomitting. The bowels were frequently injected with warm linseed tea, which afforded a degree of nourishment as well as clearing the contents of the canal. In this case I concluded there was lodgement of undigested material in the cæcum, and most likely induced by inability to assimilate the food, owing to deflected nerve-power from over-mental strain, as is frequently the case in our schools and universities at the present day. In the ordinary avocations of life we can trace the operation of like results interfering seriously with the very principles of sanguinification and blood change.

The next question is, How is rheumatism associated with perityphlitis? True, the essential cause of rheumatism is still a doubted point. Errors in diet as an etiological factor, have much to do with the production of both gout and rheumatism, and such strengthen the metabolic theory, that rheumatism depends on a morbific material produced within the system, the result of defective processes of assimilation. True, Prout, Latham, Richardson, Mitchell, and Dr. William H. Porter, of New York, have thrown much light on the subject of rheumatism, and certainly the present case points to rheumatic complication as the outcome of defective assimilation, an important factor in its production. Thus the chemical laboratory of the human system becomes disturbed, resulting in false products, enabling us to establish a connecting link between even perityphlitis and rheumatism. In the structure of the intestinal walls there is undoubtedly a large amount of fibrous tissue, just as in the fascia and tendons of the joints, and it is reasonable to suppose that these structures should be influenced in the same manner; and assuming that the case under consideration was even quasi-rheumatic in its character, it affords one more illustration as to the importance of giving due consideration to the line of action embraced, in medical or surgical treatment, under like circumstances.

In a recent paper by A. Haig, M.A., M.D., Metropolitan Hospital, London, on gout of the intestines, he states, "that his chemical and experimental experience has led him to believe that a very large number of cases of colic, enteralgia, and enteritis, and cases which are clinically indistinguishable from typhlitis, are neither more nor less than a gout of the walls of the intestinal tube, or a rheumatism," as has just been defined. In Canada, as a whole, gout is almost an unknown quantity, except in occasional cases of an hereditary type. Our people, in the midst of life's pursuits, live in a moderate way, which contributes greatly to the promotion of health. On the other hand, rheumatism is of frequent occurrence. The coldness of our winter climate, the occasional absence of flannel, and excessive exposure, contribute to develop rheumatism. After noting the life-history of many thousands of our "lumbermen," I have been amazed at the few attacked by rheumatism. Bread, pork, and strong tea constitute their chief articles of diet, and the general experience is, that the tea enables them to digest the pork with remarkable comfort; and certainly, after a hard winter's work, they return home well nourished and healthy in every particular.

These facts point to simplicity as to diet. Our progenitors frequently attained the age of "threescore and ten," nourished by grain ground between two stones. As a rule, the people of the present generation live too fast, resulting in mental strain and the absence of simplicity. With greater attention to diet, simple in its character, in conformity with the normal functions of the alimentary canal, and the avoidance of alcoholic beverages as a whole, I feel confident perityphlitic and appendix troubles, even unconnected with gout and rheumatism, would become less troublesome factors in the line of disease. To avert various irregularities in the alimentary canal, which, if neglected, will undoubtedly lead to trouble in time, is as important as subsequent treatment, when the stage is passed in which the efforts of nature are powerless to afford relief. What active agent in the system is more frequently tampered with than gastric juice, which requires a normal temperature to perform its part in the economy? Ice-water at the commencement, and ice-cream at the end of a meal, may be fashionable, but certainly not life-preserving. Unassimilated food makes its way to parts not designed by nature, to transform and absorb. As the result, how frequently, on percussion, we find extensive portions of bowel ballooned by abnormal efforts to accomplish the digestive process. Such conditions result from irregularities in living. No portion of the alimentary canal is more liable to diseased manifestations than in and about the appendix, which is a species of Loop Line to the digestive tract.

Insurance associations cannot note too carefully the probabilities of life in this connection. There is still much to be accomplished, and let our medical education be so directed as to bring about simplicity in living, as near as possible, to the normal functions of our organs, and our generation will be greatly benefited.

The Physician gets on without learning if he has address; if he has learning without address, let him be a bishop.

ALBUMINURIA WITHOUT MANIFEST ORGANIC RENAL LESION.[1]

By WALDRON B. VANDERPOEL, M.D.,
NEW YORK.

The topic I propose to present for your consideration will appeal strongly to that individual for whose benefit so much medical literature has of late years been written, the general practitioner, as on his correct diagnosis and proper treatment will here, in an unusual degree, depend whether the patient will enjoy many years of full or comparative health or the reverse; to the examiner for life insurance it presents one of his most difficult problems, and on his clear reading of the case will depend large financial interests as well as his professional reputation, and the popular estimate of the exactness of medical science.

Clinicians have long been familiar with a class of cases in which the only abnormal symptom has been the passage, constantly, or from time to time, of small or even large amounts of albumin in the urine, and this extending over a period of months or years. To these cases have been applied the names of functional, physiological, paroxysmal, intermittent, cyclic, or chronic albuminuria by different writers, according to the standpoint from which they viewed them.

To Dr. Bright, of England, we owe our first clear idea of the clinical importance of albuminuria, as portrayed in his "Reports of Medical Cases," 1827 and 1831, and the subsequent elaboration of the same is largely due to the investigations of Christison, Rayer, Frerichs, Traube, and others. For a long time it was considered sufficient to ascertain the presence of proteid matter to pronounce the case a renal affection, in all probability a nephritis, and the worst prognosis was accordingly drawn. It is now well known that we may find in the urine several other proteid bodies besides albumin, each bearing its own significance, and the presence of many depending on causes widely remote from the kidneys. In point of time we find that Sir Robert Christison,[2] in 1839, pointed out that certain articles of diet sometimes caused a temporary albuminuria. Jaccoud,[3] in 1864, laid down the proposition that there are cases of persistent albuminuria in persons in otherwise good health. Moxon,[4] in 1878, published a paper on "Chronic Intermittent Albuminuria." Professor George Johnson,[5] of England, in 1879, announced his observations on the occurrence of albumin in the urine of persons otherwise apparently healthy. Later we have many writers, notably Pavy,[6] who designated these cases as "cyclic" or "physiological;" Grainger Stewart, Sir William Roberts, Professor Fraser, Mahomed, Finlayson, Saundby, Tyson, Pye-Smith, Goodhart, Ralfe, and others in England; Senator, Jaksch, Virchow, and others in Germany; Capitan, Chateaubourg, C. Finot, Dieulafoy, and others in France; Millard, W. H. Porter, Munn, Washburn, W. B. Davis, Da Costa, and others in our own country.

The opinions held as to the frequency of the occurrence of albuminuria in otherwise healthy persons differ widely. Some, notably Posner[7] and Senator,[8] claim that their observations warrant the belief that repeated examinations, over long periods and at different hours of the day, will eventually show albumin in every healthy person, and that we may regard an albuminuria as physiological, just as we recognize a physiological glycosuria, oxaluria, or indicanuria. Washburn[9] reports he has confirmed these results with picric acid and other delicate tests in fifty persons, finding albumin in all. Sir William Roberts[1] says that concentrated urines from persons of undoubted health are comparatively rarely free from traces of albumin detectable by direct testing. In ordinary processes of testing these traces are naturally overlooked, but certainly exist very frequently, and their existence shows how nearly on the verge of a sensible albuminuria healthy persons are. Others report varying percentages, viz.: Chateaubourg,[2] 592 in 701 persons examined = 84 per cent.; Capitan,[2] 44 in 98 soldiers = 44.9 per cent.; Van Noorden, 3 to 35 per cent. in German soldiers under differing conditions of rest or fatigue; Grainger Stewart,[3] 31 per cent. in 407 examined, and therefrom formulates the statement that it will be found in one in three of the male population if examined during the active period of the forenoon, an hour or two after breakfast; before breakfast the proportion would be considerably smaller; Edes, 10 to 20 per cent.; Munn,[4] 24 in 220 examined = 10.9 per cent.; Washburn, of Milwaukee, 5.91 per cent. in 338 examined; Shepherd, 2 per cent. in 35,471 examined. These differences are difficult to reconcile; they may, in part, be due to varying conditions of seasons, pursuits, and habits of the subjects examined, also thoroughness of the observers, etc.; still we may have to conclude that they have given more attention to this subject and been more systematic in their examinations in foreign countries.

In considering the subject of albuminuria, we must recognize two primary forms, viz., one whose origin is entirely extrinsic or remote from the kidneys, often called false albuminuria, and the other, intrinsic or true, depending on changes in the renal circulation or structure; but followed in their later history it becomes difficult, if not impossible, to draw any sharp dividing line in these cases, as those which at first were purely extrinsic by their persistency and secondary effects, frequently become true or intrinsic, and a knowledge of their prime nature only to be attained from a study of the chemical nature of the proteid bodies presented in the urine.

Clinically, we may group these albuminurias under a threefold heading, under which may be brought all the varied cases reported by different writers, viz.: I. Simple albuminuria without preceding or accompanying symptoms, persistent or intermittent, and giving no indication from urinalysis of organic renal lesion. II. Uric acid or oxaluric form. III. Neurotic form.

I. **Simple Albuminuria.**—To this class can be assigned all those cases which continue for years without any apparent deviation from the normal in health, presenting no preceding or accompanying symptoms of disturbance in the digestive, circulatory, or nervous functions, and would never have been discovered except accidentally, either in the routine examination of the urine by the family physician or by the insurance examiner on the subject's application for a policy in life insurance. These are the true functional or chronic albuminurias.

As causes we find prominent: 1, dietetic; 2, exposure to cold or cold bathing; 3, muscular activity; 4, mental strain or worry, prolonged brain activity.

1. *Dietetic.*—(*a.*) The mere ingestion of food markedly favors the appearance of albuminuria where the predisposition already exists. Grainger Stewart reports, as to the effect of the taking of food, that he examined the urine of 32 soldiers before breakfast and after, finding albumin in 5 in the former and in 13 in the latter, and in a total of 160 examinations of soldiers, old men, and children, in twenty per cent. before breakfast, thirty-five per cent. after. Ch. Finot[6] reports albumin in 5.5 per cent. before breakfast, and in 11.6 per cent. at midday. Capitan and Chateaubourg confirm these results. Pavy

[1] Read before the New York Academy of Medicine, Section in General Medicine, October 17, 1893.

[2] Granular Degeneration of Kidneys, 1839.

[3] Nouv. Dict. de Méd., vol i., Paris, 1864. Quoted in the British and Foreign Medico-Chirurgical Review, April, 1868, and by G. Stewart, Lectures on Albuminuria.

[4] Guy's Hospital Reports, vol xxiii.

[5] British Medical Journal, 1879, vol. ii. Latent albuminuria.

[6] Lancet, vol. ii., 1882; British Medical Journal, 1883, vol. i.; New York Medical Journal, July 16, 1892.

[7] Virchow's Archiv, lxxix.

[8] Albuminuria in Health and Disease. New Sydenham Society, 1884.

[9] Medical News, Philadelphia, 1893, vol. i., p. 341; vol. ii., p. 119.

[1] Medical Chronicle, 1884. Urinary and Renal Diseases, 4th ed. G. Stewart, Lecture on Albuminuria.

[2] Annual Univ. Medical Sciences, 1893.

[3] Lectures on Albuminuria.

[4] MEDICAL RECORD, vol. xv.

[5] La Semaine Médicale, February 17, 1892.

states that albumin is frequently absent from the early morning urine and appears later in the day after the first meal has been taken, and then gradually falls off in amount to a mere trace at bed-time. His habit is to require four specimens of urine for examinations, one at the rising hour, one at noon, one at 6 P.M., and one at bed-time.

(*b.*) Some persons manifest an idiosyncrasy toward certain articles of food, developing albuminuria after their ingestion. These are especially eggs, cheese, buckwheat cakes, pastry, meat, etc. The peculiarity is most marked where the amounts consumed are large. Stokvis [1] reports experiments in animals with egg-albumin, introduced by the stomach, rectum, and subcutaneously, resulting invariably in the appearance of egg-albumin in the urine. Injection of serum-albumin in an animal of the same species was negative, unless the quantity was sufficient to raise the blood-pressure considerably. The results from ingestion into the stomach of human beings have not been so uniform, some experimenters, as Drs. Lauder Brunton,[2] Dobradin, and Maguire failed to produce albuminuria by swallowing a number of raw eggs in rapid succession, while D'Arcy Power and Claude Bernard succeeded in so causing it. Grainger Stewart details a series of experiments from which he reaches the conclusion that, in general, the introduction of raw-egg albumin into the stomach induces albuminuria, always in small amount, and it is not egg albumin but serum-albumin; also that all albumin disappears from the urine when ordinary diet is resumed. The same results have been obtained in experiments with cheese and the other articles mentioned.

The explanations offered for these conditions are conflicting, and not in all cases clear. The form following the mere ingestion of food may at times be due to an already impaired or diseased gastric or intestinal function, resulting in an imperfect metabolism and the development of toxic products in the blood which cause direct renal irritation in their excretion, or again, under certain conditions, the renal circulation may be influenced, either reflexly through the nervous system, or directly by a plethoric condition of the blood, so as to allow of a transudation of albumin. In the form depending on idiosyncrasy toward albuminous foods, it was formerly held that egg-albumin was directly absorbed into the blood and discharged as such from the kidneys, this being rendered more plausible by arguments showing that the molecules of this form of albumin were smaller, hence more transfusible. Five explanations are now entertained by different writers: *a.* That there is a condition of overcharge of the blood with albumin and some of the excess escapes in the urine. *b.* That severe digestive disturbance is produced and uric acidæmia or oxaluria developed, bringing these cases under our second main classification. *c.* In accordance with the theory of Dr. Thomas Oliver,[3] of New Castle, that urea is mainly formed from the red blood-corpuscles, and most when the liver is at its highest activity during digestion, considering that the liver would very likely be unusually stimulated by the excessive amounts of nitrogenous matters presented to it, and hence the blood-corpuscles destroyed in larger numbers, we would have a corresponding excess of albumin liberated, and this not being at once transformed into urea, appears in its own form in the urine. Credit is due to Drs. Rolfe [4] and Noël Paton [5] for investigations upon which this theory is based. *d.* Animals in whom albuminuria had been artificially produced by the ingestion of large amounts of albuminous substances by Semmola, were killed, and the lesions of well developed glomerulo-nephritis were invariably found in their kidneys, undoubtedly due to the irritant effects of the egg-albumin. Hence we have in this case an actual organic lesion. Millard claims this to be true in a large percentage of these cases, and cites as proof a case reported by Christison, which eventually died of Bright's disease; also a patient reported by Germain Sée had all the symptoms of Bright's disease; and Claude Bernard, whose experiments we have quoted, himself died of Bright's disease, apparently. *e.* Increase of the salts of the blood, and also of urea; the latter we may expect after a meal such as we are considering, favor osmosis, and hence may induce exudation of albumin.

2. *Exposure to Cold or Cold Bathing.*—The existence of a form of albuminuria due to this cause was first described by Dr. George Johnson, of England, in 1879. Grainger Stewart gives as results from an examination of 21 boys, on rising, albumin in 4; after cold plunge bath, 5. There was an increase also in the amount of albumin in each. As causes we have mainly reflex nervous action on the renal circulation from peripheral irritation, and also increased excretory work thrown on the kidneys by the suspension of the perspiratory function of the skin.

Dr. Sewill describes a patient now living in his seventy-seventh year, who, twenty-six years ago, was markedly albuminuric. The causation was later assigned to undue indulgence in sea-bathing in cold weather. Family history good, and he had always been healthy. He was fleshy, indolent, and a large flesh eater, took alcohol in moderate amount. In the course of four or five illnesses during the past twenty years, albumin had been found, but his health was not seriously impaired, although he disregarded all dietetic regulations. Three years ago an ascites and abdominal abscess appeared, and his life was despaired of. He is now well and hearty, and scoffs at regimen, etc. Dr. Sewill cites this case as showing the difficulty presented to insurance examiners in determining proper risks.[1]

3. *Muscular Activity.*—We are made familiar with this cause for albuminuria by the observations of Grainger Stewart, of the urine of foot-ball players and soldiers after a long march. Weston, after his long walk in London, had both albumin and casts in his urine. Under the same category fall all states, conditions, or pursuits which involve any tax on the physical powers; thus we have cases occurring among blowers of wind instruments, after parturition, and finally a form depending wholly on posture. Pavy [2] instances a young collegian aged eighteen, a good athlete, who stood a civil service examination, but albumin being found in his urine, he was rejected. The case was cyclic, however, and he was afterward passed. He went to Oxford, and from there went up for a final physical examination before going out to India. Having meanwhile read up the literature of these cyclic cases, he remained in bed until just prior to his examination and was accepted, there being a temporary cessation of the albuminuria. The erect posture evidently acts in these cases as violent exercise does in the more robust. There exist wide differences in the reports of different observers. Chateaubourg gives 201 cases in 230 soldiers examined. Griswold,[3] in 24 examinations after three- to four mile walks and other vigorous exercise followed by cold baths, failed to find any albumin. Van Noorden reports 23 cases out of fifty-three samples of soldiers' urine after exercise, viz., forty-three per cent. Millard [4] explains these differences as due to faults in testing, and claims that all the conditions of muscular fatigue, riding, marching, etc., favor an increase of secretion of mucus from the lower urinary passages, and especially if there should exist slight irritation of the urethra, prostate, or bladder, the remains of an old gleet or cystitis. To differentiate between albumin and mucin is very difficult and requires very delicate and carefully applied tests, together with the systematic use of the microscope, by which accompanying conditions characteristic of mucinuria may be discovered. Under this heading appropriately fall cases attending upon manifestations of chorea and epilepsy, considered from a view of the muscular activity accompanying them,

[1] Recherches expérimentales sur les conditions pathogénique de l'albuminurie, 1867.
[2] Pharmacology, Therapeutics, and Materia Medica, p. 435.
[3] British Medical Journal, November 27, 1886.
[4] Diseases of Kidneys, 1885. London Lancet, 1886, vol. ii.
[5] Journal of Anatomy and Physiology, January, 1886.

[1] Annual Universal Medical Sciences, 1893. [2] Ibid.
[3] Philadelphia Medical News, June, 1884.
[4] Bright's Disease, Third Edition. New York: William Wood & Co.

although they are usually classed under the neurotic type and their causation considered as due entirely to nervous phenomena.

The kind of albumin found in this class of cases by different investigators has varied; Dr. Maguire reports a varying amount of paraglobulin, and draws a prognostic inference that, the greater its amount in proportion to that of serum albumin, the more favorable the case; Pavy finds alkali albumin sometimes instead of serum albumin. Dr. Oliver,[1] of Harrogate, reports a case of intermittent albuminuria in which peptones replaced albumin for a long time. Again, Grainger Stewart tells us sugar may replace or accompany albumin, and he deduces from this proof of the theory that faulty metabolism has also here much to do with the production of the condition. Other chemical changes mentioned by Stewart are excess of phosphates in addition to, or alternating with, albumin; urates may be very abundant and sometimes uric acid, but most common of all, oxalate of lime.

The explanation of these cases offered by Stewart is altered blood-pressure in the Malpighian tufts and renal blood vessels; he claims as confirming this the metabolic abnormalities just mentioned, as indicating like influences in the hepatic circulation, possibly. It has been found that increased arterial pressure does not favor albuminuria, but increased venous pressure and slowing of circulation do materially favor it; hence many of the mechanical cases, viz., pressure of abdominal tumors and the gravid uterus on the renal veins or ureters. Operating in like manner on the renal circulation was a case recently reported of intussusception[2] of the right ureter; also a case due to a retroverted[3] uterus, where correction of the faulty uterine position resulted in disappearance of the albumin.

The strain to which the kidneys are subject in eliminating the excess of excrementitious products resulting from muscular activity, forms another potent factor.

4. *Mental Strain or Worry, Prolonged Brain Activity, etc.*—Fürbringer records the case of a medical man who showed albumin only as a result of mental excitement, all the ordinary excitants of this condition failing to produce it. Altered blood-pressure in the renal vessels depending on direct nervous influence from the brain, will explain the origin of these cases. Here may be classed all cases due solely to reflex nervous influences, and as such we may possibly view the case of retroverted uterus just cited, if its effect can be considered due to pressure on nerve trunks.

II. **Uric Acid or Oxaluric Form.**—The characteristics of this class have been clearly portrayed by Da Costa.[4] As the name indicates, the distinguishing feature is the appearance in the urine of an excess of uric acid crystals or urates, amorphous or crystalline, or crystals of calcium oxalate. The actual quantity of urine passed remains normal, but the amount of solids is increased, and it is often spoken of as loaded or concentrated urine, specific gravity 1.022 to 1.028, or 1.036. Chlorides are normal or increased in amount, never diminished, as they are uniformly with contracted kidney. Phosphates and urea normal or increased. Casts, hyaline or epithelial, may or may not be present. Albumin usually small in amount and may vary with the time of day, being most in the early urine and possibly absent in the evening. In our testing we must again be careful to avoid error from mucin, which is liable to be abundant in these urines. The clinical significance of each ingredient varies, but they all indicate a defect in the assimilative functions, and especially so do uric acid and the urates, which in some cases are due to imperfect oxidation into urea, but for the most part trace their origin to imperfect hepatic functioning. This condition is predisposed to by (1) over-indulgence in a not sufficiently mixed diet, either nitrogenous or carbonaceous. In moderation carbonaceous food is easy of transformation, but in excess the hepatic function is overtaxed and its powers impaired for acting on the more arduous nitrogenous substances. Excess in nitrogenous diet will manifestly prove a still greater tax. (2) A possibly inherited condition called the uric acid oxlithemic diathesis. This is a sensitive or vulnerable condition of the liver and kidneys, in which they are more prone than ordinary to suspend their functions. This state many writers, notably W. H. Porter,[1] consider due to generations of abuse of those organs, and not correctly a diathesis. Regulation of diet will largely, if not entirely, cause its disappearance. Oxalate of lime bears the same clinical import; some vegetables contain an abundance of this substance, and may favor in their consumption an oxaluric condition, as do also nervous worry and strain.

The cause of albuminuria here is probably a purely mechanical one, depending on the irritation produced by the imperfectly formed metabolic products, and markedly so by the sharp crystals of lime oxalate or of uric acid. These crystals may lodge in the renal tubules by accretion, attain a moderate size, and cause a persistent albuminuria following after an intermittent one. Altered blood-pressure in the kidneys may be produced reflexly through irritation of the pneumogastric branches in their final distribution, and so contribute another cause; and again chemical changes may occur in the blood as still another cause.

No marked symptoms may attend these cases which would indicate any disturbance of the digestive, circulatory, or nervous functions, and they may continue for years undiscovered and never result in any organic kidney disease. More commonly we get a clear history of prolonged irregularities of diet followed by functional digestive disorders, manifested by uncertain appetite, flatulence, etc., and later nervous symptoms, viz., headache, sleeplessness, vertigo, etc.; and circulatory disturbances, viz., irregular pulse, usually feeble, but may exceptionally show increased tension and some rigidity. A symptom to which Da Costa draws marked attention is a slight rise in temperature, particularly in the afternoon, which he interprets as signifying increased renal activity, due to the excess of imperfectly formed excrementitious substances they are called upon to eliminate.

Under this category a number of the so-called dietetic albuminurias, primarily in part, and eventually wholly, fall, that is, where we have secondary digestive disturbances inaugurated and a true mal-assimilative albuminuria developed. Da Costa ranks here also the majority of the cases of this affection in boys, called by most writers the albuminuria of adolescence. Sir William Gull[2] speaks of this adolescent form as occurring in boys and young men about as often as spermatorrhœa.

Many writers consider they can trace in this class of cases the uric acid type, a true pre-Brightic stage, so called, which, if allowed to continue untreated, will eventually develop the rigid arteries, persistent high-tension pulse, and retinal changes of chronic nephritis, and contracted kidney. An interesting paper detailing cases illustrative of this condition, and tracing the sequence of events, was read by Dr. R. Van Santvoord[3] before the New York Academy of Medecine a short time ago, in which he shows that it is not unusual, where dyspeptic symptoms have continued more or less constantly over a long period of months or years, for organic changes to appear, manifested lastly in the circulatory system by continued high pulse-rate and tension indicative of commencing arterial sclerosis and cardiac hypertrophy, the cause possibly being ptomaïnes or other toxic substances, derived from defective metabolism, circulating in the blood.

III. **Neurotic Type.**—We have here cases following or accompanying manifestations of epilepsy, chorea, apoplexy, hysteria, influenza, exophthalmic goitre, and Stew-

[1] Bedside Urine Testing. Third Edition.
[2] London Lancet, March 8, 1890. See quoted in Annual Medical Sciences, 1891, G. 15.
[3] New York Medical Journal, June 22, 1893.
[4] American Journal of the Medical Sciences, January, 1893.

[1] Renal Disease. William Wood & Co., 1887.
[2] London Lancet, 1886, vol. i.
[3] Arterio-renal Disease, MEDICAL RECORD, January 14, 1893, p. 36. Read before the Section on General Medicine, December 20, 1892.

art reports a case accompanying infantile paralysis, also one with multiple sclerosis, and again with the general paralysis of the insane. Puncture[1] of the floor of the fourth ventricle, near the location which causes glycosuria, Bernard showed some time ago, would produce albuminuria, and we have like effect from lesion of the cerebral peduncles, also from section or irritation of the spinal cord.

The explanation of these cases generally accepted is direct nervous influences acting from the brain or spinal cord through the splanchnic, cœliac, and renal nerve plexuses, by whose irritation the vessels of the kidneys are contracted and by their paralysis dilated; in the latter case the volume of the circulation, not the rate, is increased, and secretion correspondingly increased.

There remain a few forms of albuminuria which I have been unable to assign to any class enumerated, as their etiology is to me obscure; such are a form mentioned by Dr. Lambert[2] as attending extremes of temperature, another found largely in the newly born, and lastly, after anæsthesia in some cases.

Let us consider the prominent clinical features presented, and endeavor to ascertain the value and bearing of each upon our diagnosis, prognosis, and treatment. This is of unusual importance here, as a diagnosis can often be made only by exclusion, hence the import of each symptom must be carefully weighed.

1. *Pulse rate and Tension.*—In the simple non-organic forms the pulse is normal in rate and usually feeble. While these conditions remain the case may be considered purely functional and such have been accepted by insurance companies and proved good risks. When the pulse-rate and extension are both constantly increased, we may justly consider that we have to deal with a commencing cardiac hypertrophy and arterial sclerosis, and our prognosis will be grave if the condition is at all well advanced.

2. *Albumin.*—A study of the amounts or persistency of this substance affords little light, since in advanced forms of nephritis it may be constantly absent or appear only at times, and is uniformly scanty. Again, the quantity may be large and constant, and the subsequent history prove the case wholly functional. Jaksch[3] warns us that we are not warranted in inferring the existence of a renal lesion from the mere fact that the urine contains albumin. The forms of albumin usually found and always alluded to as of pathological interest, are serum albumin and serum globulin or paraglobulin; these two occur in all albuminous urines in varying proportions, the latter frequently the most abundant.

With these may be associated other and adventitious forms from which they may with difficulty be distinguished. Many find their way into the urine after its secretion, being derived from disintegration of the renal epithelium or due to the presence of blood, pus, prostatic or seminal fluid, leucorrhœa, etc.

Grainger Stewart classifies these albumins as follows: Hæmoglobin, peptone from gastric or intestinal digestion, propeptone, albumoses or globuloses, acid albumin derived from the action of acids on albumin, alkali albumin, fibrin found in hæmaturia, chyluria, and also derived from renal casts, mucin, lardacein, waxy or amyloid material derived from renal casts occasionally. The microscope and clinical history will usually differentiate serum albumin and globulin from these adventitious forms with ease, except mucin, which affords a fruitful source of error as it forms a precipitate with most all the test reagents, and its appearance is favored by the same causes as albumin. Sir William Roberts says it is present in all urines, healthy or morbid. W. H. Washburn regards its appearance as suspicious, and where persistent in large amount it affords strong proof of defect in the renal structures, and may be diagnostically as important as the albumin which it masks. Citric acid is the usual and most delicate test, and should always be used when testing for albumin to determine the presence and proportion of mucin, since this acid does not precipitate albumin. Dilute mineral acids behave the same, but concentrated ones dissolve mucin. Millard mentions as a possible source of confusion the sticky substance found in chronic cystitis, attributed to the decomposition of leucocytes by the urea and ammonium carbonate; the microscope will here prove of service.

The tests for albumin have, of late, greatly multiplied, but coagulation by heat, the oldest, and the nitric acid or Heller's test, next in age, still rank first with the majority of examiners. Grainger Stewart considers picric acid the most delicate and reliable test, whose first use in England he attributed to Dr. George Johnson.[1] From experiments with different urines he shows that this acid gives a more marked and rapid precipitate with albumin than with mucin, which with experience can be easily distinguished, and in many cases minute quantities of albumin may be detected without any precipitate from mucin, even though abundant. Millard recommends the phenic-acetic acid and potash test:

℞. Acid phenic glacial ..... ℥ ij.
Merck's or Calvert's 95 per cent. acid acetic puri ..... ℥ vij.
Add. liq. potassæ ..... ℥ ij., ℥ vj.

Tanret's test, or the double iodide of mercury and potassium, is considered of value by the same author. The nitric-magnesian test discovered by C. Gerhardt[3] in 1856, and modified by Sir William Roberts,[3] consists of one part nitric acid to five parts saturated solution of magnesia sulphate, claimed to be more delicate than pure nitric acid. Other tests are metaphosphoric acid, acidulated brine, potassium ferrocyanide, ammonium sulphate, etc. The percentages claimed for each test are: heat, 1 part in 100,000; nitric acid, 1 to 100,000; Tanret's phenic-acetic acid and potash, and nitric magnesian test, 1 to 200,000. For the accurate determination of the amount of albumin present we have several elaborate methods of separation: drying and weighing, also Esbach's tubes graduated for the urine and reagent, Sir William Roberts's dilution method, and Dr. Oliver's percentage method. Millard says the percentage is usually less than one-tenth per cent., and the most he ever found less than two and one half per cent., an amount he considers never exceeded. He criticises the frequent method of guessing at the amount from the degree of cloudiness, and the statement often made of three and four and even fifty per cent., while the serum of blood contains only three to four per cent., and urine with one and one-half per cent. would become almost solid in testing, and look one-half albumin. Hofmann and Ullzmann offer an approximate, but fairly accurate, method in considering every line of thickness of the white cloud caused by contact with the reagent, to represent one-tenth per cent. of albumin.

In considering the relative values of the different tests, Dr. Victor C. Vaughn[4] states that the only tests which distinguish the albumins from the albumoses and peptones are heat, nitric acid, and acetic acid, and potassium ferrocyanide; Sir William Roberts recommends heat or nitric acid contact; Professor Fraser, Tyson, Pye-Smith, Goodhart all favor the same. A few precautions are necessary in applying the heat test, viz., to render the urine moderately acid, if not so, but not too acid, or we will get an acid albumin not precipitable by heat; acetic acid is preferred for this purpose. Earthy phosphates, if abundant, may give a cloud which should be cleared up with an acid—citric, nitric, or acetic, preferably the latter; but care is required, as when the cloud from albumin is faint the addition of anything will scatter it, and nitric acid will redissolve such a trace.

With the nitric acid test the acid is usually added slowly, drop by drop, but recent writers recommend plac-

[1] Pepper's System of Medicine.
[2] Medical Director of Equitable Life Insurance Company, quoted by W. B. Davis, Albuminuria in the Apparently Healthy.
[3] Clinical Diagnosis, 2d English edition, translated by Cagney.

[1] London Lancet, 1882, vol. ii., p. 737.
[2] Traité de Chimie organique. [3] Medical Chronicle, 1884.
[4] W. B. Davis: Albuminuria in the Apparently Healthy.

ing the acid in the tube first, and pouring the urine gently upon it. Urates in excess may obscure this test, and when so they may be dissolved by heating the test-tube to a point just below the coagulating point of albumin, viz, 140° F. Dr. Munn [1] and others call attention to the fact that this and all contact tests should be viewed by reflected light; the tube should be held at the lower end of the window, the shade drawn down to it and out from the window about a foot, thus excluding the direct light from the eye of the observer; the acid is added while the tube is thus held. Dr. Munn claims that by this precaution many cases will be detected which would otherwise be overlooked, and that he has thus succeeded where the family physician of the applicant for life insurance had failed. He also cautions that the tested urine should stand for five minutes, Millard says ten or fifteen, before deciding, and then if no cloudiness appears the urine is non albuminous.

In concluding this topic I quote from Rudolf von Jaksch,[2] "Serum albumin in notable quantities is never found in healthy urine, and its appearance is in all cases a morbid symptom of great importance."

3. *Urea.*—In this substance we have an exponent of the working capacity of the kidneys. Persistent diminution in the daily excretion of the urea would point clearly to existing or impending organic renal disease. The amount is influenced by the quantity of fluid consumed, kind of food, amount of exercise, and condition of digestive functions. Average daily output should be 550 grains (W. H. Porter).[3] Excretion is diminished by the onset of acute febrile diseases, later increased, and all causes which retard the activity of the hepatic or renal cells, especially the latter, and most markedly by organic renal lesions. Hence in the functional forms of albuminuria the excretion of urea should remain normal. The source of urea is from the destruction of the red blood-corpuscles (Dr. Oliver), and from the food ingested, from nitrogenous most directly, from carbonaceous by a more complex process.

4. *Casts.* The origin of these bodies is in the renal tubules, from an albuminous or fibrinous exudate from the blood-vessels, and they usually incorporate the tubular epithelium in their structure. They are found in most all forms of renal congestion and inflammation in varying amounts, but as to what exact conditions favor their formation, and why at times present and again absent under the same apparent physical conditions, we are unable at present to determine. Usually their discovery is of grave diagnostic and prognostic import, but hyaline, epithelial, and even granular casts have been found in cases which eventually completely recovered and may at the time have appeared in perfect health in all other respects. Charcot [4] states that hyaline casts may be found in normal urine, and many other observers have found them in affections apparently apart from the kidneys; *e.g.*, Nothnagel says he always found them in severe icterus, albumin is frequently found here also; Grainger Stewart reports casts as frequently found in such cases. Allchin does not consider casts as a serious symptom. A cause for error in reports may possibly be mucous casts or cylindroids which have the shape and many of the appearances of hyaline casts, or may receive a precipitate of amorphous urates or lime phosphate, and closely simulate granular casts. Sir Andrew Clark,[5] Dr. Campbell Black, and others report bodies resembling renal casts which were really prostatic casts. Again, Drs. George Johnson and Millard deny that casts or renal epithelium are ever found in normal urine. In my private records I have notes of a case which occurred in a gentleman forty years of age, of fine physique, fond of athletic exercises, especially boxing. Hyaline casts were repeatedly found by the examiners of two prominent insurance companies in this city, and these results confirmed by Drs. Delafield and Janeway. His application for a policy was rejected. Subsequent investigation disclosed that the casts were only present after boxing and absent at all other times. An accessory fact on which much stress has been laid, was, that he invariably followed his exercise with a cold alcohol and water sponge-bath. As to the bearing of exercise on this phenomenon we may cite Weston again, as after his long walk in London, one hundred and fifteen miles in twenty-four consecutive hours, he is reported by Pavy to have had in his urine albumin and casts, hyaline and granular, but twelve hours later all was normal. The case I have related was unique in that albumin was not present at any time. Change in his habits of exercise resulted in disappearance of casts. Six months later he was accepted by both companies, and to day, nine years later, is in perfect health and vigor, fully justifying his acceptance as an insurable risk. Casts have never since been found in repeated examinations. What explanation can be offered for the condition here narrated? Exercise might, where violent, increase the excretory products to be eliminated and so subject the kidneys to a strain sufficient to cause a congestion, and even low grade of inflammation, and so produce casts; but if so why did not albumin accompany? Again, the cold alcohol sponge-bath might affect the renal vaso-motor nerves reflexly through peripheral irritation. This patient was at times markedly oxaluric, and shortly before the casts were discovered, six or nine months, he had a slight urethral discharge, apparently prostatic, which I attributed to oxaluria; now, the same irritation in the kidneys might cause cast formation, possibly.

5. *Specific Gravity.*—If this is high we may safely assume that the kidneys are functionating properly, particularly if the daily quantity is normal; but if the specific gravity remains permanently low, grave organic renal disease is probable.

6. *The Daily Quantity.*—This affords an indication of the filtration activity of the kidneys. The amount is large in waxy or cirrhotic kidney. It is small in obstructive troubles in the urinary tract, also in degenerative conditions of the renal epithelium and in chronic congestion. In functional albuminuria the amount should be about normal, and influenced simply by usual causes, viz., atmospheric temperature and moisture, and by diet. A fair daily output would be 40 to 50 ounces.

As a cause of increased urinary secretion, Porter [1] mentions loss of contractility in the renal vessels, and the full blood pressure, unrestrained by the afferent vessels, being brought to bear on the Malpighian tufts, is forced through the over strained capillaries.

7. *Color.*—This varies from pale or almost colorless, in nervous or diabetic cases, to dark or even black. These grades of shade may depend on the concentration of the urine, and so be of importance to our topic as indicating what the daily quantity should be, or are due to certain articles of diet, certain drugs, or to abnormal products from the patient's own economy, as bile, or blood.

8. *Phosphates, Urates, Chlorides, Oxalates.*—These have already been considered.

9. *The General Personal Appearance.*—This may give some clew to the renal condition in a peculiar pallor, possibly some disinclination to exercise, poor circulation, and transient œdemas of the feet or eyelids, although the appearances with organic lesions resemble these but are more intense.

To sum up, we find as causes of albuminuria: 1. Changes in the renal circulation, viz., venous stasis, the venous radicles and Malpighian tufts being dilated, tension therein increased and circulation slowed; or again, all the renal vessels dilated, arterial, capillary, and venous, with increased rapidity of circulation, that is, an active or passive hyperæmia. In no purely non-organic albuminuria do we have increased arterial tension, except transitory or accidental; if persistent, arterio-sclerosis is developing and the case has become an incipient nephritis.

[1] MEDICAL RECORD, vol. xv.
[2] Clinical Diagnosis, 2d English edition, translated by Cagney.
[3] Renal Diseases. William Wood & Co. 1887.
[4] Bright's Disease, p. 33. [5] London Lancet, 1886, vol. i.
[1] Renal Diseases, p. 205.

These changes in the renal circulation may depend upon cardiac or obstructive pulmonary affections, tumors of the mediastinum or abdomen, causing pressure on the vena cava or other vessels, or lastly, on change in the renal structure. 2. Changes in the renal blood-vessels in all their coats which permit the transudation of albumin, while under normal conditions this would be impossible. 3. Digestive disturbances which produce irritating substances for the kidneys to excrete. 4. Changes in the blood; *a*, surcharge of albumin; *b*, an excess of salts which, Hoppe-Seyler and others consider, favor the exosmosis of albumin; *c*, increased wateriness claimed by some as a factor, viz., Magendie and Mosler;[1] *d*, the opposite condition, undue concentration, is maintained by others, G. Stewart, etc. 5. Reflex or direct nervous influences. 6. Small amounts may be derived from a slightly excessive disintegration of renal epithelium without any pathological import (Senator). 7. Lastly, the adventitious, contingent, or accidental forms from parts remote from the kidneys.

Prognosis.—We find here much difference of opinion. The factors demanding our attention in arriving at a satisfactory and logical conclusion are the duration, persistency, and amount of the albumin, together with the other characteristics of the urine, and the general physical condition and pursuits of the subject.

Dr. George Johnson says, "If albumin is absent during intervals of twenty-four hours consecutively, urine normal in color and specific gravity and no casts, prognosis is good."

Professor Saundby: "He has seen a large number of such cases during the past ten years who have never developed Bright's disease, and many are well."

Pavy: "Where traces of albumin only without other conditions of kidney disease, and especially where present at one part of the twenty-four hours and not others, prognosis good."

Drs. Maguire and Broadbent[2] consider albumin only of importance in a relative manner, as indicating other lesions present.

M. Dieulafoy[3] reports that in sixty renal cases in his hospital wards albumin was absent in one-fourth, and in others albumin disappeared and yet the disease progressed.

Grainger Stewart[4] cites the case of a young man whom he watched through his student career, in the arduous work of a four years' course in medicine, who had albumin constantly in his urine, and yet the work he went through should be sufficient guarantee that his health was not seriously impaired.

Dr. Barnes[5] expresses the view "that the condition indicates a temporary disturbance of the equilibrium of several functions, and the incapacity of certain organs has to be supplemented by the activity of others, and if neglected the condition may become pathological."

Dr. Ralfe,[6] in an able paper read before the London Medical Society, says: "The clinical significance of albuminuria as a symptom has undoubtedly diminished during the last twenty years. By the systematic examination of the urine in all patients presenting in private practice and for life insurance, these cases are discovered earlier and treatment instituted before irreparable damage has been done. Hence, the prognosis is improved." A large number of these cases, he says, eventuate in the red or white granular contracted kidney. In the former, the onset being insidious, the case rarely comes under observation until well advanced, but when seen early much benefit may be obtained by diet and proper hygiene. He cites the case of a gentleman now living, seen first in 1878, for bronchitis, then presenting no abnormal urinary or other symptoms. In 1882, he had hypertrophy of left ventricle and displacement of apex. Pulse showed increased tension; urine, abundant; specific gravity, 1.014, a trace of albumin. Under diet, etc., albumin disappeared, and now, after eleven years, he has a little more outward displacement of apex, a more palpable thickening of the radial vessels, and more constant appearance of albumin and of urine of low specific gravity. So far no serious symptoms have developed, but how long before they may we cannot say. Cases with the small, white, or mottled kidney give more marked symptoms, are seen earlier, and hence offer a better prognosis.

The gouty form, our uric or oxaluric form, Dr. Ralfe gives a favorable prognosis for if under proper diet, etc.; but neglected, the results are often disastrous. The history of a case is given which terminated fatally in four years through neglect of diet, etc.

Albuminuria occurring for the first time in adult life, Dr. Ralfe considers a danger signal, even though no cardiac hypertrophy, etc., accompany and the albuminuria be intermittent.

Dr. W. T. Gaerdner,[1] of Glasgow, expresses much the same view and says that the danger signal is not necessarily fatal, but heeded, may avert disaster. Dukes[2] gives an unfavorable prognosis in all cases at all persistent.

Brannan[3] pronounces that all cases untreated will eventuate in organic renal lesion.

Dr. Pye-Smith[4] considers all albuminurias pathological.

Millard the same. Dr. W. H. Washburn[5] says he considers the condition always pathological and indicates an abnormal state of the kidneys, which may be transitory or permanent, the probability of cure diminishing as it lasts. My own views, based upon cases encountered in private practice, dispensary, and hospital work, also cases examined for life insurance or referred to my care by insurance examiners, have led me to regard these cases with distrust, especially where the cause appears to reside in any persistent fault in the assimilative functions, nervous or circulatory apparatus, and only to relax those feelings when the albumin has disappeared for weeks or months, and the other characteristics of the urine become entirely normal. Undoubtedly, many cases show albumin in the urine persistently for years and never develop any further indications of organic disease, but the natural tendency in even the blandest cases, is to gradually impair the renal epithelium and other structures by the continued abnormal filtration of albumin, and transform a simple functional into a true nephritis. Hence I would pronounce them damaged lives to be carefully watched, our diagnosis to be guarded, and if insured, only in a protected manner. As to insurance, Sir William Roberts and Senator consider these cases as favorable if purely functional. Pavy says, "I do not consider medical knowledge is at present in a position to enable us to differentiate these cases from those which eventually develop into Bright's disease."

Johnson favors an advanced premium. Saundby, as surance for five years and then re-examination. Pollack[6] holds the same view and an advanced premium.

It has been suggested to insure these cases at ordinary premiums, and if they die before the average first-class life limit, to deduct proportionately from the amount paid; but should they attain to the above limit or over, to allow full premiums.[7]

Treatment.—This is mainly dietetic, and regulation of the general hygiene, viz., occupation, clothing, exercise, etc. Diet plain, farinaceous or milk, few meats, and no wines. Keep the kidneys well flushed, using plain or alkaline mineral waters, hot water before meals. Warm bathing and free stimulation of the perspiratory glands. Repeated urinalyses to keep us informed of the working condition of the kidneys, and a watchful care of the heart and blood-vessels. As to drugs, most all observers

[1] G. Stewart: Lecture on Albuminuria.
[2] London Lancet, 1893, vol. i., p. 999.
[3] Ibid., p. 1542.
[4] Lectures on Albuminuria.
[5] London Lancet, March 18, 1893.
[6] Ibid., February 25 and April 8, 1893.

[1] London Lancet, March 11, 1893.
[2] Ibid., 1891, vol. ii., p. 1383.
[3] British Medical Journal, 1891, vol. ii., p. 136.
[4] Ibid., August, 1889.
[5] Philadelphia Medical News, 1893, vol. i., p. 341; vol. ii., p. 119.
[6] Medical Handbook of Life Assurance.
[7] Tyson, of Folkestone: London Lancet, March, 1893.

have reached the conclusion that they are powerless to check the discharge of albumin, although several will produce it. An occasional hepatic stimulant, as blue pill or nitro-hydrochloric acid, will be of service. By these means a case may long be held in abeyance, and possibly even an entire cure effected.

Case I.—B. L——, merchant, aged forty-five. Family history and habits good. Rejected by insurance company in 1880 because albumin was found in his urine. Height, five feet ten inches; weight, one hundred and eighty pounds. Chest examination, negative. Digestion at times impaired, acid eructations, uncertain appetite; albumin scanty, but uniform. Ordered to travel, light diet, and regular hours for meals. Six months later improved, but still albumin found. Seen three months later, no albumin and general health good.

Case II.—L. McA——, aged twenty-three; seamstress, unmarried. Seen first, in 1881, in hospital. Suffers from dysmenorrhœa, poor circulation, cold extremities, migraine, and attacks of hystero epilepsy. Heart sounds feeble, pulse weak and intermittent. Urine loaded with oxalate of lime and considerable albumin. Treatment: Calomel in grains iij. doses, occasionally. Nitro-hydrochloric acid, and tr. nux vom., bromides for nervous condition. Diet: Milk, farinaceous articles, light meats, and fish. The urine improved with her general condition, but albumin never all disappeared. Discharged after three months, improved. Seen two years later, had remained benefited, but still had a trace of albumin, and showed some hypertrophy of left ventricle. Readmitted to hospital in 1887, suffering from uræmic dyspnœa, rigid and tortuous arteries, marked retinal changes, œdema of limbs, urine contains urates in abundance, albumin, casts fatty and granular. Died two weeks later in uræmic coma. Autopsy revealed small red kidney and general arterio sclerosis.

Case III.—J. W——, horse-raiser, aged thirty-seven. Seen first in 1884, suffering from albumin in the urine, but scanty; backache, nausea, frontal headache. Heart and lungs all right. Treatment: Diuretics, regulation of bowels, and later tonics; and in six weeks all abnormal symptoms, both general and in urine, removed. Seen during the next four years at intervals, remains free from albumin, and in good health. In 1892 seen, after an interval; has been passing albumin for six months, has granular and epithelial casts, headache, rigid arteries, apex displaced outside nipple line, accentuated aortic second sound. Treatment: Diuretics and stimulation of skin and bowels. Improved, but went West in cold weather, and returned much worse, and died of pulmonary œdema two weeks later. This was at the last a case of contracted kidney, but originally was of the functional variety.

Case IV.—Girard L——, seen in 1882 while participating in a walking match, aged twenty-two, formerly telegraph operator, well developed, general physique good. Suffering from great prostration on third day of walk. Urine shows albumin, urates, and phosphate in excess. Ordered to discontinue walk, and all albumin disappeared.

Case V.—Sam P——, longshoreman, seen in 1883. After a severe day's work in the sun in July, was prostrated and taken home in dazed condition; urine albuminous for two days.

Case VI.—George C——, aged sixteen, delicate lad, seen in 1886 during an attack of chorea of great severity; urine albuminous. Chorea improved under Fowler's sol., large doses, and albumin disappeared at same time.

Case VII.—C. K——, painter, aged fifty-two, suffering from bad colic. When seen in 1889 general condition fair. Urine albuminous for three weeks while under treatment, and then disappeared permanently.

Cases VIII., IX., X., XI., all in good general health, but at times show albumin in urine after irregularities in meals, hours, or excess in drinking; have been under observation now, 1, 3, 3½, and 5 years, respectively. General health good.

Case XII.—I. S. L——, Chinese art student, aged twenty two, seen in 1884 suffering from incipient phthisis. Some pulmonary consolidation; urine has albumin and hyaline casts. Under tonics and travel his phthisis was checked, and with it the urine became normal and remains so now.

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THE LIMITS AND REQUIREMENTS OF GYNECOLOGY.

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"L'attention a besoin d'être éveillée pour apercevoir même les choses les plus ordinaires."—Dupuytren.

There seem to be two different views quite commonly held concerning the science and art of gynecology; one being that it has to deal only with the distinctive organs of women, and another that the whole of this specialty is a branch of surgery, while everything else pertaining to the illnesses of women either belongs to some other specialty or to general practice. This branch of professional labor which has to deal with the most cherished portion of the civilized world, has a much wider range, and it cannot be thus bounded. With this belief I shall venture to call attention to a few essentials, rather than even attempt to discuss in any full sense the limits and requirements of gynecology.

Ever since Eve quit living at her ease and entered upon her worldly career, down to the dawn of the millenium, there has been and will be numerous ailments of women, whose coming neither the devices of man nor the provisions of nature can avert. The capabilities of gynecology, which has already bestowed untold blessings on the human race, are very great, whose limits and requirements are difficult if not impossible to closely define, and I must confess that as I approach the task I do it with reluctance, for I feel my incompetency to discuss the subject in such a manner as its importance demands.

In the present time, when specialism in medicine and surgery is more common than formerly, and the value of special study and training are universally acknowledged, the following questions arise: Is there not a great liability that specialists will fail to be thoroughly educated in general medicine and surgery prior to entering on special work? Is not a thorough practical knowledge of medicine and surgery an important pre requisite to success in special practice? The foregoing interrogatories will be incidentally considered in the following paper.

Specialism in medicine has become recognized as a necessity not by the profession only, but by the people. The high school graduate of to-day represents attainments equal to the college graduate of a quarter of a century ago. Knowledge has increased with the growth of the century, in medicine as in all other branches of learn-

ing, and the medical student of to-day has facilities for obtaining knowledge which were unknown a few years ago. There is now no excuse for a graduate in medicine being uncultured and uneducated, yet with all the means at command for thorough medical training, it is beyond the capabilities of the human mind for one to be equally proficient in all the various departments of our art. It would be like whirling the wheel of time backward for us to return to "the good old times," when a doctor was supposed to be equally skilled in general medicine, surgery, obstetrics, and all of the specialties developing therefrom.

It can be stated without fear of contradiction, that it is impossible for one person to embrace the whole of the professional field in practice. Life is too short for one to attempt to plough equally deep in each. This is more palpably true as they severally demand the highest culture.

It is to be deplored that specialists often engage in their work without adequate preparation, and sometimes medical students select some special field of labor and upon graduating enter immediately upon its practice. Thus both general and special medicine are brought into disrepute, for no one can graduate into a specialty.

I have for years contended that the only material from which to make a successful specialist is the general practitioner, and time has more strongly confirmed my belief. First, a thorough medical education, and secondly, several years of general practice, should precede engaging in special practice. The aptitude one may evince for a particular field of labor may often be an entirely different one, at this time, from the one aspired to in student days.

Gynecologists, no less than general practitioners, are cognizant of the fact that women patients may be affected with other disorders than those of the uterus and its appendages. It cannot be denied that there has been an apparent forgetfulness, on the part of some practitioners and some gynecologists, that women possessed other important organs than those contained in the pelvis. There are many derangements of the system which closely resemble diseases of the generative organs. For instance, pain in the back may be due to coccygodynia or myalgia, chronic malarial toxæmia, or other causes. Painful micturition, often attributed to uterine displacements, may be due to irritable caruncle of the meatus urinarius or fissure of the urethra. And when the painful urination is accompanied by pelvic pain, one might be led to believe the discomforts were due to uterine displacements, or possibly cystitis; yet analysis of the urine will show a uric-acid diathesis which neither the washing out of the bladder nor any other local treatment will relieve. Pain in the abdomen, sometimes attributed to the ovaries, may be due to habitual constipation or to an atonic condition of the large intestine. Sometimes the pain in the left side, called ovarian, may be wholly due to constipation. In this condition there will be, not infrequently, pain in walking or standing. Pelvic congestions, reflex disturbances closely simulating diseases of the uterus, diseases of the rectum, hæmorrhoids, anal fissure, ulceration of the large intestine, may produce symptoms often attributable to diseases of the generative system.

Without question, chronic constipation with the consequent pressure upon the left ovary, is one of the most frequent conditions giving rise to ovarian pain, with many reflex symptoms, such as sympathetic sciatica, so closely resembling ovarian disease as to be called by the latter name. There is but little room for doubt that the long continuance of pelvic disorders will in time give rise to hæmorrhoids and other disorders of the rectum; and on the other hand, these last-named conditions may aggravate already existing pelvic disorders.

There are many abnormal conditions of the abdomen closely resembling diseases of the uterus or its appendages, such as movable or displaced kidney, a sensitive or slightly inflamed condition around the appendix vermiformis, chronic exudation around the same, inflammation of the ureters. Malignant disease of the kidney, calculus, pyonephrosis, and other diseases of this viscus may simulate uterine disorders. The same may be said of tubercular peritonitis and certain affections of the stomach and colon. Hepatic disorders are frequently mistaken for uterine, while the reverse also holds true. Displaced liver has lately been mentioned as having been confounded with uterine disease.

Other constitutional diseases, having no immediate connection with gynecology beyond the fact that the patients are women, may be by the imperfectly trained gynecologist claimed as belonging exclusively to his specialty. Other conditions arise where a clear and definite acquaintance with diseases of the chest, and a practical knowledge of auscultation and percussion, are essential to the gynecologist.

The astonishingly brilliant achievements of abdominal surgery of late years, has brought this department into great prominence before the medical world. The per centage of recoveries of the successful operators has become so large that its recital would have seemed a fairy tale to the ovariotomists of a quarter of a century ago. While it is a laudable ambition to make many operations, and especially have a large percentage of recoveries, there is a much higher aim; that is, to cure the patient; and it is a well known, but not generally acknowledged, fact that recovery from an operation and cure of the disease are *not* synonymous terms. The subsequent history of many of those operated upon would often be a sad recital of aggravated suffering. This is a grand central question around which many things turn. It is a melancholy truth that tyros in the profession, so far as general medical knowledge is concerned, have become expert abdominal surgeons and have acquired proficiency in technique, but without the diagnostic skill which should accompany it, and which some experience in general medicine alone furnishes. Such men as these are not fair representatives of the best gynecologists of the present time.

Further, these surgeons frequently point with pride to the great number of recoveries, yet many of these reputed recoveries are not *cures*, as subsequent results show. Removal of the ovaries and Fallopian tubes for pain, *per se*, has not been productive of many cures, nor has the same surgical operation for mental disorders been more satisfactory. It is very evident to every conscientious, careful gynecologist, that anæmia, the multiform varieties of neurasthenia and hysteria, play an important part in the production of pain.

These are misleading conditions for which many a woman has had her ovaries removed, without accomplishing the ultimate good results usually expected, and often promised.

Thirty years ago, the teachings of Bennett regarding ulceration of the uterine neck, which we now know is not true ulceration but granulation following laceration, represented the advanced views of that day. Then, the mechanical treatment by means of pessaries held the boards for many seasons. An epitome of the practical portion of one of the most interesting and elegantly written American works on diseases of women, can be given in few words, viz., "All curable diseases of women can be cured by my pessary, while those that cannot be cured by this means are incurable."

Then later, the crooked ways of the uterus must be made straight by stems, tents, cutting instruments, etc.

At another time the incision of the uterine neck for a variety of disorders was in vogue, while later, the neck of the uterus was found to be torn after every case of childbirth, and could only be remedied through a surgical operation. Thus many of the fads of gynecology have from time to time prevailed, to be relegated later to the things that have been.

More recently, a new school of gynecological prophets has arisen, who have promised ease and comfort to all suffering women if they will submit to a trivial surgical

procedure, and be content to remain ovariless and child less during the remainder of their lives. The old classical motto, "Propter uterum est mulier," is no longer held in esteem, but in its place, "Propter ovaria est mulier," with the addition in plain English "For revenue only."

Happily for the future of our country, this industry is diminishing, and conservatism is beginning once more to hold sway; and as it is quaintly put by the brilliant editor of the MEDICAL RECORD, "What glad news this will be for the little ovary, which can now carry on its particular home industry, instead of becoming domesticated into the pickling jar of the progressive gynecological pathologist. Let us hope, then, that the surgical millennium is coming, when the ovary shall hereafter peacefully wrap the drapery of the broad ligament about her and lie down to peaceful dreams of families yet to be."

One characteristic of many in this new school is the apparent assumption that all gynecological knowledge worth retention has been developed by them and is an outcome of the last decade. The literature of the past is rubbish, its pathology faulty, and its teachings pernicious. Libraries are no longer of value, and only recent publications, damp with the printer's ink, are to be relied upon. It cannot be forgotten by the conscientious observer, that the present state of gynecological knowledge has not been altogether the result of sudden development, but rather the product of slow accretion. The student of medical history, however, finds it often repeating itself, and the revival of some old fact or theory is modernized with additions and given to the world as something entirely new.

Let me not be misunderstood. No one admires more than I do the pushing aggressiveness of many of the very class I have alluded to; but the belief that true conservatism, based on thorough knowledge, should prevail has prompted me to write thus plainly. Conservatism as applied to gynecological surgery, is a term sometimes used as an excuse for ignorance or inefficiency, but it is only in its true sense that it is here used.

It is neither my desire nor design to deprecate the value of surgical gynecology. Since my first ovariotomy, in 1868, I have been constantly engaged in the surgical work of this specialty, therefore it is from the standpoint of the surgeon rather than the physician that the theme I have selected is considered. If what I say concerning gynecological errors can be looked upon as a criticism, then I may be among the criticised. It seems to me that, from the gynecologist himself, no more appropriate plea can emanate than one which demands that knowledge in his specialty shall be limited alone by the most thorough scientific attainments and cultivation of the highest art.

Materia medica comes in for more than its share of ridicule by this newest school, and yet a knowledge of therapeutics which implies a certain degree of familiarity with materia medica is an important pre-requisite for the thoroughly equipped gynecologist.

The changes in theory and practice have been more marked and more rapid in gynecology than in any other department of medical science. These changes have not been continuously progressive, but have been fitful and somewhat erratic. The accusation has been made, and not wholly without good cause, that gynecologists often fail to understand clearly the influence which disorders of the generative organs have upon the general health. The foundation of these charges, doubtless, lies mainly in the fact that the work of most gynecologists is in the main surgical instead of medical. The aims of surgery are for direct results, while those of medicine are more remote, reflective, and more comprehensive in character. During the past few years abdominal surgery has accomplished such astounding results, that it has seemed to many gynecologists to overshadow everything else. The unprecedented number of recoveries from cœliotomies at the hands of gynecological surgeons, has brought this branch ot surgical art and science to the front in such a manner as to lead to the belief, on the part of many, that not only is proficiency in abdominal operations a *sine qua non* for every full-fledged gynecologist, but more particularly is the number of his operations a gauging point.

In other words, the more cœliotomies, the higher in the scale is the gynecologist, and the quicker they are made, the more lustre is added to his name. That this branch of gynecological work has apparently overshadowed everything else, is to be deplored, and it must, in the near future, lead to many retractions and many regrets. It does not seem possible for it to be otherwise, unless the usual currents of medical and surgical history deviate from their regular channels. "Tithing mint and cummin, and neglecting the weightier matters of the law," has its parallels in medicine as well as elsewhere. Of this assertion it may be asked, which are the weightier matters, and have you not reversed the proper order in which they should be placed? It is not necessary for the purposes of illustration that a decided answer to this question be given, as there must of necessity be honest differences of opinion as to what should rank first in importance in gynecological work.

In the rush to become distinguished as abdominal surgeons, some seem to have neglected the careful study and consideration of many of the morbid conditions to which the uterus and other organs are subject, and for which cœliotomy is never required.

The many improvements in the diagnosis of diseases of women and the surgical operations for their relief, have been the most distinctive features of the progress of gynecology during the present generation. McDowell initiated the surgical procedure from which the most brilliant results have followed and thousands of lives have been saved. Probably no other operation has been devised which has added so much to the duration of life as ovariotomy. We find here an illustration in its highest sense of conservative surgery. The injuries of parturition which formerly were considered beyond the resources of art, are now cured by surgical means. The éclat of surgical operations often brings reputation and pecuniary compensation out of all proportion to the rewards of patient labor in the fields of pathology and therapeutics. For these reasons it is not surprising that medical gynecology has failed to be as attractive as surgical. Genius has exhibited its triumphs more frequently in surgical gynecology. But the shining successes of surgery are of necessity accompanied by tendencies more or less dangerous, particularly where enthusiasm for the work develops a spirit of recklessness sufficient to cause one to forget that an operation is never justifiable except for the preservation of health or saving of life. "The sole justification of any operation which involves suffering and danger to the subject, must be the strong probability, based on scientific knowledge, that compensating good will be the result." (Fordyce Barker.)

The temptation to practise our art when the conservative processes of nature may effect a cure, sometimes leads one into error. It is impossible to defend a death caused by an operation performed for the purpose of relief from symptoms which have but little disturbing influence upon the general health.

Abdominal surgery has attained such prominence that it seems to be, by many in the profession, synonymous with gynecological surgery. In this class of work the advantages of skill in operating and nursing, with suitable environments, have been made apparent, and it is through them that the present great successes of abdominal surgery have been attained.

I heard a well-known and distinguished general surgeon remark, in a gathering of medical men less than a year ago, that gynecology was simply a branch of surgery and should never have been separated from it as a specialty. Others think differently, for the general surgeon, although he may be skilled in the technique of certain operations, is not from that fact a gynecologist. There is preliminary training before entering upon practice that

the surgeon is not required to pass through. The delicacy of touch and gentleness in methods of manipulation are better acquired by the obstetrician than the general surgeon.

Doléris, the distinguished French gynecologist, goes so far as to say, "One is not a gynecologist if he has not begun by being an obstetrician." This position he defines in an elaborate paper.

Substantially the same views are held by Auvard, of Paris, Martin, of Berlin, and Winckel, of Munich, in an exhaustive paper read at the last meeting of the American Gynecological Society, on "The Union of Obstetrics and Gynecology."

Similar views to the above are also entertained by many who have become distinguished in the field of gynecology in England and America. While such opinions may be deemed radical, it cannot be denied that they contain more than a modicum of truth; nor is it necessary to read between the lines to observe that a one-sided development does not make the well-rounded and competent gynecologist.

The lessons taught by history are not always comprehended nor remembered, and that is why mistakes of the past repeat themselves. We have been taught by medical history that errors of observation and judgment have ever accompanied the truth, and that its progress has been marked with dazzling delusions, some of which were in their time believed to be as substantial as any established fact of to-day. Errors are never suddenly abjured. One is slow to renounce old beliefs, but time is an element that frequently works great changes. It may be a little humiliating to look back upon discarded follies, but there will sometimes be great advantage in retrospection. We profit more by our own mistakes than by those of others, but we should also attempt to gain knowledge through the history of the past and the successes and errors of others.

I believe it to be an established truth in medicine as elsewhere, that one gains more useful knowledge through his failures than his successes.

Conservatism has not always met with the consideration due to it. In our art conservatism, in its true sense, signifies the preservation of health and saving of life by the least dangerous means, but if necessity demands, the most effectual and radical treatment should not be avoided. It is not conservatism to attempt to disperse a pelvic abcess by tampons and hot douches, nor to endeavor to cure an ovarian tumor by electricity. True conservatism demands the best and promptest means of treatment.

It cannot be questioned that in gynecology there has been much needless and reckless surgery. It is a surgical sin to make an operation attended with the least danger and causing mutilation, if safer methods will accomplish all that surgery can make possible.

Now, on the other hand, the temporizing methods of those who call themselves conservatives are to be deprecated. Conservatism here is a misnomer. Procrastination and hesitancy, or lack of knowledge and want of courage, are not synonymous with true conservatism. These are the methods, not infrequently, of the timid or the ignorant, and no more represent the genuine gynecologist than do those of the reckless surgeon. There are abuses and errors to be corrected besides those of a strictly surgical character, not the least one of which is the too common and often unnecessary pelvic examination of young and unmarried women. This topic I will dismiss with a single assertion, leaving much to be implied, in saying that the conservation of the *morale* of patients is a duty under that unwritten code which should govern the lives and actions of every physician.

Many patients, and particularly those who consult gynecologists, instead of requiring the knife of the surgeon or the preparations of the pharmacist, are in need of the kindest advice and sympathy. Their minds are emotional, their ideas are disorded, and their sensations abnormal. A study of psychical, no less than physical, disorders is an essential part in the education of one who aspires to any degree of proficiency in differential diagnosis. We have to deal with the mysteries of life, which are intensified when its manifestations are abnormal.

My preceding remarks have been in the main relative to surgical gynecology, and for this reason, that the belief, both in and out of the profession, has seemed to prevail that the gynecologist is a special surgeon, and nothing more.

It is true that to be successful in this branch of medicine one must be a surgeon, but he must be something else. The limits of gynecology are *not* narrow, but wide, and to be thoroughly competent requires a general medical and surgical training. In these days a medical education presupposes preliminary training and culture as initiatory to its study. Medicine can only be advanced in its various branches by its students devoting their entire time and energy to that purpose. I believe it to be impossible for one to deserve eminence in any one specialty without being grounded in the whole science and art of medicine.

Mill, in an address to the University of St. Andrew some years ago, said: "It is the utmost limit of human acquirement to combine a minute knowledge of one or of a few things with a general knowledge of many." This general knowledge marks the accomplished, skilful gynecologist.

To succeed in the treatment of diseases of women, one should fully understand their mental peculiarities as well as their physical conditions, and, all other things being equal, the one will best attain this end who is the best able to bespeak their confidence and stimulate their hope.

Recently the medical journals have called attention to an enterprising young physician, not quite twenty-one years of age, living in a country village in one of the Southern States, who had made eleven laparotomies within a few months, thereby depriving the same number of women of their ovaries, and all these patients had recovered. If gynecology required nothing better than this, what brilliancy is here displayed, what genius, like the rose born to blush unseen, is permitted to languish in that southern village. Probably, in five years nine out of those eleven women will arise and call him not blessed, but cursed.

What a marked contrast is the record of those who have made American gynecology famous. The genial and gentle Marion Sims, of precious memory, was first a cultured gentleman, next a general practitioner in Alabama, and later, through his earnest labors for the relief of suffering womanhood, justly won the distinctive title of the "Father of American Gynecology." The Atlees, Peaslee, whose classical work on "Diseases of the Ovaries" has never been surpassed; Byford, industrious and painstaking; Albert Smith, Jackson, and others who have passed to their reward, were all first general practitioners. Of many now living who have given renown to American gynecology, some were for a time obscure physicians who later developed an aptitude that made them skilful in their special work. None of these who have conferred lasting benefits upon womankind became specialists until, through years of patient toil, they won the right to that distinctive title.

The mantles of the illustrious dead who made American gynecology famous have fallen on worthy shoulders, and future generations will accord to many now living, places in the niche of fame as high as the highest of those pioneers who wrought carefully for years in the field of medical science and now rest from their labors.

The ideal gynecologist is made, not born, nor is the process of construction limited in time by any college curriculum. Before proceeding further in considering this portion of my theme, I want it to be distinctly understood that I am strictly impersonal, as I consider myself sadly lacking in many of the qualifications which go to make up the ideal gynecologist.

To the obstetrician and the gynecologist the dearest interests of the community are intrusted; the ideal gynecol-

ogist should therefore be, first and foremost, a cultured, educated gentleman, worthy of the important trust committed to his care. He should be thoroughly trained as a general practitioner and engage for a time in general practice, for without such experience he will be only a partially grown specialist.

He should be a physician and a surgeon with a general knowledge of all the special branches of practice. He should receive special training at the hands of several masters, for, although the pioneers of gynecology won distinction without it, the times have changed, and now the responsibilities of the specialist are greater than ever before. The improved methods of teaching in the medical colleges and post-graduate schools, with increased clinical opportunities, compel the specialist to avail himself of these advanced methods. The interest in everything that relates to the most cherished members of society, must cause the gynecologist to avail himself of every opportunity by which knowledge may be deepened and broadened by contact with the master minds in this department of medicine and surgery.

It is the right and privilege of every man and woman to aspire to perfection of character and to the attainment of absolute truth in art and science, but their possession is only for Infinity. It is ever the unquenchable desire of higher humanity to strive to reach the summit of human possibilities, and though one may ascend height after height and yet not reach it, he can still bear within his breast this best of all convictions—the higher the aim, the greater the attainment.

Progress of Medical Science.

The Treatment of Gangrenous Hernia.—The proper course to pursue when the contents of a strangulated hernia are found to be gangrenous, was again the subject of recent discussion at the Royal Medical and Chirurgical Society. A paper on this subject was read by Mr. Kendal Franks, of Dublin, who related a case which had occurred in his own practice, and presented a table of 222 cases of gangrenous hernia in which resection of the bowel had been performed. The mortality in these 222 cases amounted to forty-eight per cent., while in a rather larger number of cases in which the surgeon had contented himself with making an artificial anus, the deaths amounted to eighty per cent. Largely on this ground, Mr. Franks urged that the old operation of Lawrence should be, as a general rule, abandoned in favor of immediate circular enterorrhaphy. This view was practically unanimously supported by the surgeons who took part in the debate, and it may be taken to be the view of the more advanced surgeons of the day.—*The Lancet.*

A point of great importance in this discussion was raised by Mr. Thomas Smith, when he stated that "gangrenous bowel" was a phrase which had a different significance to different surgeons. It is very difficult, even if it be possible, to say exactly when the bowel passes the line which separates recoverable from fatal congestion and stasis. All surgeons of experience have met with cases in which the congestion of the bowel has been so extreme that they have doubted whether the bowel was capable of recovery, but on returning it into the peritoneal cavity an uninterrupted convalescence has followed. This being so, the question naturally arises whether the cases in Mr. Franks's table are exactly comparable with those in which the surgeons have felt compelled to make an artificial anus and do nothing more. For our own part we should be inclined to answer this question in the negative. In many cases of gangrenous hernia the general condition of the patient is so bad that it would be impossible to submit him to such an operation as intestinal excision and suture; even the simplest procedure is often enough to extinguish the feeble spark of life. For these grave cases we cannot think that excision will ever be applicable, nor will any surgical measure avert death; but in the borderland cases and in cases of early gangrene it is different, and Mr. Franks's table shows that resection and suture of the bowel may under such circumstances be undertaken with a very great measure of success.

When the operation is determined upon, the question arises whether it is to be effected at the site of the hernia or through a median abdominal incision. In umbilical hernia, of course, these are one and the same. In inguinal hernia the herniotomy wound will generally afford ample room, but in femoral hernia the limits of the crural canal are so narrow that it may be necessary either to divide Poupart's ligament or to make an anterior abdominal incision. Borella, of Novaro, reported such a case about a year ago, but the ordinary laparotomy wound gives much more room, and in many cases would be preferable. Any special clamp may be dispensed with whenever a good assistant is available. The excision of the bowel must be free, but care should be taken to divide the bowel on the upper side, wide of the gangrenous part, so that the stitches shall be made in healthy tissues and not be liable to slough or cut their way out. Great care ought to be taken in every case not to infect the peritoneum from the sloughy hernial sac. All the morbid tissues should be removed before the parts at the neck are much disturbed, and the antiseptic douche should be freely used. To insure success in an operation of this kind adherence to the following four rules would seem to be necessary—viz.: 1. Do not infect the peritoneum from the hernial sac: 2. Excise the bowel well above the gangrenous part. 3. Unite the two ends of the bowel securely with a strong, fine aseptic suture; and, 4. Operate expeditiously; time is of importance, especially if the patient is suffering from collapse.

Bronchial Septicæmia in Infants.—Drs. Hutinel and Claisse have published observations on a form of acute septicæmia observed in young infants, which they believe to be due to rapid infection of the bronchial mucous membrane by micro-organisms derived from lesions in or about the mouth or pharynx. The cases occur frequently as complications of measles, but sometimes arise independently. They are particularly likely to arise in hospital wards when an extensive epidemic of measles has led to crowding. The infant, without obvious cause, becomes rapidly extremely ill, the face is pale, and of a leaden color, the eyes sunken, the cheeks blotched with red, the expression anxious, the alæ nasi work, respiration is hurried, the pulse rapid (150 to 180), and the temperature rises quickly to 104° F. Auscultation reveals numerous subcrepitant râles; there may, however, be no dulness, and the extent of lung occupied by râles may be no greater than a few days earlier when the patient did not appear very ill. Vomiting and diarrhœa of gray-green stools may be present. In a large number of such cases an infective process may be observed on the lips—cracks with a grayish bottom and indurated surface, especially on the upper lip. From these cracks a superficial serpiginous ulceration extends; the lower lip is excoriated and covered with pultaceous sordes. The buccal mucous membrane is red and bleeds easily, the pharynx is red, the tonsillar crypts are filled by a creamy exudation, the nose runs and the discharge excoriates the upper lip. The prognosis is exceedingly bad. In a considerable proportion of such cases no pneumonia is found after death. The mucous membrane of the larger bronchi is inflamed, and this inflammation may extend to a greater or lesser distance toward the smallest bronchi, which, however, are not uniformly affected. The liver is enlarged and presents extensive fatty degeneration, affecting especially the portal side. Bacteriological examination of the contents of the bronchioles showed that a streptococcus was present in every case but one, and generally in large numbers, sometimes in pure culture. In one case the pneumococcus was present alone, in others the streptococcus was associated with staphylococci or the bacillus coli. The streptococcus was in an extremely virulent state. In three cases only was the streptococcus

found in the blood, and the pneumococcus once. As a rule the bronchial glands, liver, kidneys, and spleen contained no microbes. The symptoms, the authors conclude, are produced by the absorption of soluble poisons elaborated by the streptococci in the bronchi and bronchioles.—*Revue de Médecine.*

Encysted Dropsy Associated with Pelvic Abscess.—Hönck reports two cases of encysted dropsy or serous perimetritis. (*The British Medical Journal.*) The patient in the first case had been delivered six months previously and suffered from parametritis. The exudation diminished, on free application of ichthyol-glycerine, to the size of a hen's egg. The patient sought relief because the swelling became larger, with slight rise of temperature. Ichthyol proved unavailing; a parametric "abscess" was found to the right of the uterus. Poultices were applied to the hypogastrium; but the suspected abscess did not come to the surface, so tapping was performed and a clear serous fluid escaped. A month later, as the growth had become larger, abdominal section was performed. The swelling was found to lie between the parietes and strongly adherent coils of intestine. The abdominal incision was closed, and the swelling was opened above Poupart's ligament. Over two pints of clear serum came away; then a spherical tumor was exposed and incised, about a pint of pus escaping. The cavities were drained and the patient recovered. The second case occurred in association with left perimetric abscess in a woman aged fifty-two. The uterus was not fixed. Douglas's pouch, where the swelling presented, was punctured, serum escaping. It was punctured again higher up and more to the left, and then pus came away. In order to open the suspected abscess freely the thermo cautery was used, and, instead of pus, one hundred grains of ascitic fluid were emptied out of the vagina. The abscess was then found to be higher, and was difficult to feel from the vagina. After a short space of time the abscess was freely laid open by abdominal section without cutting into the peritoneum. Drainage was established through the vagina and through the abdominal incision, but the patient died of septicæmia. In both these cases there was a large encysted ascitic tumor associated with suppuration in the peritoneal cavity.

Ophthalmic Migraine.—The history of a case of ophthalmic migraine in a man of forty is given by Evangelista, in the *Raccolitore*, May 10–20, 1893. Ophthalmic migraine exists in two forms that may develop successively in the same subject. The disease is hereditary and appears in families where there has been gout, arthritic or nervous disease. Pathogenesis may have to do with a functional lesion not localized in any special point, but disseminated throughout portions of the cortex. Like Möbius, the author considers ophthalmic migraine a form of sensory epilepsy, and advises the use of bromide of potassium as a remedy, according to Charcot's teaching.

Psychical Contagion in Schools.—Dr. Rembold, of Stuttgart, describes a peculiar psychical outbreak. He was lately called to a school for girls in consequence of one of the little pupils having fallen back, in an unconscious state, on the form on which she was sitting—an incident which was followed in a few minutes by others of the class fainting away, while others again broke out into crying and trembling fits, those who could articulate complaining of feeling very ill. The alarm and confusion arising from this strange occurrence spread to the other classes, in one of which a girl thirteen years of age manifested the same nervous symptoms which had been already witnessed in the first class. On Dr. Rembold's arrival he found among the forty little girls affected that ten were quite unconscious, seemingly sunk in profound slumber, a condition from which they could not be aroused, even with violent shaking and when loudly called upon by their names. Of those who retained consciousness he describes some as trembling all over, weeping and sobbing aloud, while others of them seemed to be dazed and terror-stricken at the sudden illness of their schoolfellows. These latter were immediately relegated to another room and the agitated ones were brought to an open window, and with every encouraging and reassuring word and deed were made to draw deep breaths of the fresh air. Those who were still in an unconscious state were brought round by strong douches of cold water and energetic appeals to them by name, after which they were sent home, whence, either later in the day or next morning, they returned to school without apparently any serious after-effects from their seizure. The interesting point in this noteworthy outbreak is the spread, as if by contagion, of the nervous or convulsive symptoms from individual to individual and from class to class—a phenomenon amply attested as having occurred in previous centuries and which has been variously classed as St. Vitus's dance in Germany and as typhus cerebralis convulsivus by Italian physicians. In these days the name for it is auto suggestive seizure, the peculiarity in the cases reported from Stuttgart being, as Dr. Rembold points out, the extraordinarily short period within which the symptoms arose and disappeared.—*Berliner Klinische Wochenschrift.*

Clinical Department.

A CASE OF ILEUS CURED BY LAPAROTOMY.

By B. S. TALMEY, M.D.,
NEW YORK.

The following communication of a case of ileus cured by laparatomy is not aimed at proving the fact, familiar to every surgeon, that the only prospect of success lies in the knowledge of the impediment in the passages, and its removal by laparatomy, and that any other treatment is insufficient, but it aims at proving the importance of early diagnosis and of timely operation by a surgeon summoned by the attending physician. The number of successfully operated cases of ileus is steadily increasing since the introduction of Lister's antiseptic treatment. Nevertheless every sincere surgeon gives a very doubtful prognosis with reference to the proposed operation. The prognosis would be much less doubtful if the attending physician would understand the disease in time, and not think of ileus until peritonitis or even a collapse have set in, when surgical aid will come too late. I do not deny the correctness of the attempt at overcoming the impediment during the first days of disease by injections into the intestines, irrigations of the stomach, and even by strong cathartics; our case, however, proves the great amount of care to be taken, and the necessity of surgical interference, even when the condition does not appear to cause alarm. The case will be now briefly narrated, as follows:

On August 25th, I was called to see Mrs. Z——, aged twenty-six. The patient had had no movements of the bowels since August 22d, and was now suffering from excruciating abdominal pains. Upon inquiries I learned the following history:

In February, 1891, the patient, having given birth to her first child a year before, suffered from cramps and pain in the ovarian regions, which were entirely relieved for two months at the German Hospital of this city by the alleged removal of the right ovary. After leaving the hospital, however, she did not feel very well upon resuming hard work. During the five months following the operation the menstruation had ceased. It then became so abundant that it resembled a miscarriage, which the patient insists had occurred. On account of pain and leucorrhœa she was examined, and a prolapse of the uterus was found. She was operated upon again, and since this operation the menses have been irregular, occurring every two to three weeks, and she suffered from frequent pain in the ovarian region.

Present Condition of Patient.—Slender woman of healthy appearance. The abdomen is soft and without

signs of dulness upon percussion. Palpation causes pain only in the ileocœcal region. A scar from a former operation runs from the navel to the symphysis. Besides the above mentioned abdominal pain, the patient suffers now from the same cramps as those before the first operation. They appear every five to ten minutes in paroxysms. Her features are distorted as if by pain. The spinal column is extended so as to place the patient into a sitting position. The arms are thrown backward, the fingers are in a convulsive position, half stretched, half bent. After two to five minutes, the patient sinks upon her couch. She vomits everything she takes, and had no movements of the bowels for three days.

The patient having taken of peaches on August 22d led me to believe that all the symptoms were due to simple constipation. The excrements were, I thought, pressing the ovarial scar, thus causing the spasms. Apart from the hysterical convulsions, there was nothing to remind one of a serious disease. I ordered five doses of calomel of ten cent grammes pro dosis (0.01).

In the morning of August 26th I found no changes. No movements had occurred. She had taken three doses of calomel without vomiting it. Since she mostly complained of the spasms, I made a hypodermic injection of 0.01 morphine and ordered enemata.

On the same evening the spasms had ceased, after the injection of morphine, but not the abdominal pain. Stools did not appear, in spite of calomel and enemata. The patient was now unable to pass flatus. The vomited masses looked greenish yellow. The abdomen was still soft and not distended by gases, but the patient now localized the pain in the region of the stomach.

My diagnosis, ileus, which I had considered at first in the morning, was now firmly established. I could, of course, not exactly localize the lesion. But I presumed that the impediment was caused by adhesion of portions of the small intestines to the abdominal scar, thus obstructing the passage. I was positive in not locating the impediment in the large intestines, since after one injection of two quarts of fluid into the rectum, where it remained for three hours, I could feel the fluid up to the cæcum. I still tried another laxative (tinct. rhei) and ordered chloral hydrate for sleep.

On August 27th the condition was somewhat changed. The temperature had risen, the pulse was vigorous, and the abdomen was somewhat distended. The pain was in the entire abdomen. Spasms set in again, for which I gave another morphine injection. I did not feel like delaying the operation for a longer period, and called Dr. Carl Beck for consultation. Dr. Beck believed that same afternoon that we could wait until the next day, since the condition was not so dangerous as to require an immediate operation. We agreed to try once more strong cathartics and irrigations of the stomach. I made a hypodermic injection of 0.005 morphine, ordered one drop of ol. croton, and made two irrigations of the stomach, at 8 P.M. and 11 P.M.

On the following day the irrigations and croton oil had no effect. The abdomen was now somewhat distended. The temperature in the rectum 105.8° F. I sent the patient immediately to the Post-Graduate Hospital for operation.

On August 28th, at 10 A.M., the operation was performed. Since Dr. Beck was also of the opinion that the impediment was due to an adhesion to the cicatrix in the abdominal wall, the cutaneous incision was made just in the old scar. As soon as the peritoneum was opened two hundred to three hundred grammes of serous fluid was discharged, and the convoluted small intestines pushed forth. Along the old scar nothing abnormal was found. The presumption of a location of the impediment, therefore, in this region was erroneous. The small intestines were then examined in the region of the right ovary, and they were found as follows: A convolution of the ileum was found to be adherent to the cicatrix produced by the removal of the ovary. The adhesion was probably caused by an abscess after the first operation. The convolution had the form of a Latin M. The cicatrix was situated across the M in such a manner as to touch four spots of the convolutions. In handling the intestines the fixation was loosened, and the ileum showed a loss of substance at four different points. The two spots in the centre were only deprived of the serosa, and therefore were powdered with iodoform. The external spots had also lost the muscularis and the continuity was formed only by the mucosa. Perforation was therefore only a question of a few hours. These external spots were sewed, the intestines pushed back into the abdomen and the abdominal wall closed by sutures.

The patient had four stools by the next morning, in spite of the administration of opium. The pulse was of normal quality, but somewhat accelerated. There was but slight fever, and the patient felt hungry. The course of the affection was normal after the operation. On the fourteenth day after the operation the patient was discharged as cured.

The above-mentioned condition found during operation explained the symptoms. The peristaltic movements of the fixed ileum caused irritation of the old ovarian scar. The same spasms were thus caused, as those before the operation, by the ovarian tumor. The case is very instructive with reference to the importance of an early operation, even in so-called slight cases. The condition of our patient was so little alarming that I was wondering at the prompt obeyance of the relatives to my orders to send the patient to the hospital for operation. Nobody who had seen her on that morning, especially after the spasms had disappeared by the administration of morphine, could have considered the case to have been extremely serious. And yet the perforation of the ileum was imminent on the same day, and would have certainly occurred if it had not been prevented by the operation.

140 West Sixty-third Street.

[illegible] but little was done until a few months ago, when the National Health Society opened classes for the benefit of the aristocracy, at which something more is taught than a coquettish arrangement of caps and aprons. The idea is to teach ladies the value of good nursing, and enable them to learn something about fit food for invalids and how to give first assistance to the injured, in all of which, it seems, duchesses, countesses, and the like are lamentably deficient.

We fear that fashion has done almost too much for English nursing. Some specimens wander over to this country. They are usually well trained, but carry themselves with such a conspicuous air of self-restraint and such obtrusively repressed gentility, that it does not seem right to ask them to empty the urinal. Good breeding is an excellent and, indeed, indispensable thing for a nurse, but our English sisters seem to carry it on their sleeves like the other insignia of their office. So we say that perhaps fashion has made nursing too fashionable.

SERO-THERAPY.

The treatment of disease by means of injections of serum has been employed so extensively that the term serum-therapy is applied to it by Dr. Ed. Égasse in a critical review which appears in the *Bulletin général de la Thérapeutique*. Among the most interesting experiments are those made upon tuberculous animals and patients, the substance used being the serum of dogs and immunized animals. The dog serum is used because this animal is comparatively immune against tuberculous infection. Brancaro and Solaro treated four patients, using in one case about three ounces of serum altogether. But the results were negative. Professor Semmola recommends

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THE MODERN DIAGNOSIS AND TREATMENT OF DIPHTHERIA.

WHATEVER else sanitation has done it has not yet succeeded in checking the prevalence of diphtheria either in city or town. The disease is still the scourge of childhood, the dread of parents, and the reproach of medical art. For the recent practical application of bacteriology to the diagnosis of diphtheria has revealed in a very startling manner these two facts: First, that in over one-third of the cases the disease diagnosticated as diphtheria was not the genuine malady at all; second, that the mortality-rate of true diphtheria is between forty and sixty per cent. All the numberless contributions to diphtheria therapeutics which have been made so indus-

higher, and was difficult to feel from the diaphragm. a short space of time the abscess was freely laid open abdominal section without cutting into the peritoneu Drainage was established through the vagina and throu the abdominal incision, but the patient died of septicæm In both these cases there was a large encysted ascit tumor associated with suppuration in the peritoneal cavit

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No rule can be given for applying these solutions that will cover all cases. In a general way it may be said that the strong solutions of hydrogen peroxide containing about one-half per cent. of acid, made up chiefly of hydrochloric or sulphuric acid, should be gently but thoroughly applied every four hours during the night, and more frequently during the day for the first few days. The 25-volume solution may be used in spray; the 50-volume may be applied, a drop or two at a time, on a swab, until the membrane is removed or much diminished, or in certain cases the 50-volume solution may be applied with the syringe. Even a stronger solution than 50 volumes may be used for resistant membranes. It is well to use cocaine before applying the peroxide. By the help of bromide at night the patient loses very little sleep in being aroused for the local treatment. Every precaution should be taken to spare the patient's strength, and it is not necessary that the head should be raised from the pillow while the applications are being made.

There are some disadvantages to the peroxide treatment which are enumerated, and the limitations of it, and indeed of all local and late treatment, are dwelt upon. Still, by means of peroxide of hydrogen in strong solution, applied early and judiciously, it seems probable that the mortality-rate from true diphtheria may be reduced much below forty per cent. Of fifty-eight cases treated by Dr. Williams sixteen died, and among these the mortality was in some cases explained by incomplete or late application of the germicide.

The Thoughts of a Sad Man.—There are many bad physicians, and there are some who are better; but there are none who are very good. [Sometimes, too, there are very poor judges.—ED.]

IS THE GENERAL PRACTITIONER PASSING AWAY?

In one of the daily papers an old-fashioned lady, in speaking of times going by, is made to deplore the gradual extinction of the "family doctor." It may not be necessary to state that she was a resident of the city, that she spoke of the condition of things around her, and yielded with consistent reluctance to what she so sadly regarded as inevitable.

Her lament, especially as it pertains to the conditional requirements of large cities, is not without its ominous significance. As fashion crowds and the cultivation of distinct fields of practice becomes more and more necessitated by the desire to get fame and fortune with a minimum expenditure of energy, we may naturally fear that the general practitioner may after a while be left to do merely the odds and ends of practice, which remain after the apportionment of the already numerously appropriated special regions. It is comforting to know, however, that what is still good in general practice is not yet, in many cities and districts of country, entirely given over to the new order of things. In country districts more particularly, we still have the opportunity of studying the typical family physician, and preserving intact the admirable qualities which go to make up the well-rounded, broad-principled, general medical adviser. The country doctor so often unjustly patronized by his would-be metropolitan superiors, still maintains this useful position and triumphantly vindicates his right to pose as the recognized medical autocrat of the community in which he so laboriously, faithfully, and acceptably rules. While there are certain peculiarities of contact and environment which make such a relation necessary, we would not change it if we could. He is in his right place, he is performing excellent and satisfactory service, and in very many respects is in his doings an example worthy of emulation. And altogether, his experience in doors and out gives him that exercise of common sense which serves him as surely in podalic version as in the more complicated manœuvre of extricating himself from a snow drift on his way to the case. He broadens with the horizon of his drives, and has ample opportunities, between stretches, to hatch his live experiences in the quiet study under his buggy top. It is this forced introspection that prods the very marrow of his inner resources and makes him the trusted and self-reliant practitioner who can not only help himself but help others in seasons of trial and in times of emergency. There is certainly plenty of room for such men, and abundance of opportunities for them. The necessity for their being and doing we trust will never die out.

Certainly, in variety and extent of business he keeps himself in touch with all the refractory organs, and appreciates each one's position in the consistent whole that makes the general system the unit for attack. He learns that the darker the road, the greater the safety in giving the horse his head.

Thousands of such men are rattling over hill and dale throughout the country, and a goodly majority still maintain their hold on city business. A friend of ours very aptly replied to a question concerning his particular branch of practice, by stating that his specialty was confined to *visiting* patients when they were *sick*. He posed as a medical architect that knew the general plan of the built-up body, rather than the one who confined himself solely to adjustment of window lights, the boring of extra flues, the tinkering with ventilators, the altering of partitions, the trimming of alcoves, or the plumbing of new traps.

We do not mean to be understood that specialism is not necessary when special training is added to general experience, but we still maintain that the engineer who knows the connection of the drains can do more to the general good of the construction, than the more special man who sometimes undermines the constitution to demonstrate his pet system of sewerage, or weakens a thin partition for placing an oversized trap. Expert skill is always to be appreciated in its place, and it has too wide a range of usefulness to be gainsaid, but it is always a comfort to know that the general superintendent is not as yet extinct.

It is still proper that he should be encouraged in his general studies and numerous struggles, and be the rightful arbiter in the ever present war between the belly and the members.

FASHION AND NURSING.

One of the daily papers says that two or three years ago the Prince and Princess of Wales distributed badges and prizes to a large number of professional nurses, and afterward entertained them royally at Marlborough House. It was expected that fashionable dames would show their appreciation of the royal example by taking up nursing as a recreation, but little was done until a few months ago, when the National Health Society opened classes for the benefit of the aristocracy, at which something more is taught than a coquettish arrangement of caps and aprons. The idea is to teach ladies the value of good nursing, and enable them to learn something about fit food for invalids and how to give first assistance to the injured, in all of which, it seems, duchesses, countesses, and the like are lamentably deficient.

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these injections in connection with iodoform. Babes, of Bucharest, treated dogs with increasing quantities of human tubercular cultures, at first using old ones, then new. He finally succeeded in making dogs perfectly immune, and from these he asserts that he obtains a serum of great anti tubercular potency. This he demonstrated upon rabbits. Upon tuberculous men the injections produced "sensible amelioration," but he asserts that there has not yet been time enough to determine what the serum will actually do. Furthermore, he has attempted to produce the serum in large quantities by vaccinating cows. The milk of these animals, it is believed from experiments on other animals, will have antitubercular properties. Here is surely a practical field to work in. If the cow can only be turned into a curer instead of a spreader of tuberculosis, it will be an immense gain for humanity. We salute Herr Babes, and trust his fancy will not get ahead of his facts. Professor Bernheim has treated one hundred and five cases of phthisis by means of serum of immune animals, and he announces the same ancient tubercular formula, "with good results."

Professor P. L. Tommasoli has been treating lupus with dog serum; he has not had success as yet, but will try again with larger doses. A great deal has been said about serum-therapy in connection with tetanus. In 1870 Bering and Kitasato announced that the serum of animals rendered refractory to tetanus by trichloride of iodine, possessed preventive and curative properties against that disease. Tizzoni and Cattani studied the subject, and reached somewhat similar conclusions. Later they treated eight persons suffering from tetanus with serum from immunized dogs, and obtained eight cures. But soon after a disagreeable person, named Albertoni, announced that Tizzoni and Cattani did not report certain other cases which did not get well, also that the cured cases were of the chronic kind, that often get well spontaneously. Later still came reports of failures from Renon, Grancher, Polaillon, Auger, and Letulle; so that the serum therapy of tetanus was dead before it had time to know itself. However, last of all come Roux and Vaillard, who present a very complete monograph upon the subject. They conclude that when tetanus is once well developed, treatment is of little avail (among seven cases there were two cures). They believe, however, that the treatment is useful as a preventive, and may be of service at the beginning of the malady.

In regard to pneumonia, many experiments have been made, and great patience and ingenuity have been shown. It is demonstrated that one can confer immunity upon animals by injections of blood extracts and serum taken from those that are immune. Applying their experiences to man, Foa and Scabia have injected immunizing serum and extracts in ten cases of pneumonia, on the second, third, and sixth day after infection. In all, the crisis occurred on the second day after the injection; the patients recovered, but no definite conclusions were reached. Pausini reports successful experiments with animals, but gives no practical demonstrations on man.

Dr. Lava reports ten cases of pneumonia treated by serum therapy, with doubtful results. Bozzola reports five cases, with one death.

Dr. Audeoud has treated two cases of pneumonia successfully by injecting the blood of convalescents directly into the brachial veins of the patients. He cites a similar case reported by Dr. Hughes, of Philadelphia. The treatment is evidently still in an experimental stage.

CROSS-SADDLE RIDING FOR WOMEN.

The practice by women of riding the bicycle is steadily extending, and so far as we can learn is attended with no deleterious results. It has familiarized the public with the spectacle of seeing women riding astride, and doing it gracefully. The popularity of bicycle riding among women has made it more possible for women to accept the idea of riding *en cavalier;* an idea which is being put in actual practice in the West. In other words, cross-saddle riding with divided skirts has gained a certain amount of recognition in a number of localities. It has been found that ladies look well, ride more safely, and get better exercise in the new way. The practice of side-saddle riding is attributed to the vagary of a queen who was too deformed to use the cross-saddle. There has been a vague idea that any other method would, in young women, be disastrous by injuring the hymen. As a matter of fact, the practice of using the side-saddle has been adopted because it adapts itself to modern dress; and because without a special dress no other method would be suitable.

But cross-saddle riding is the safer way, it permits of a better and freer use of the limbs, and makes the exercise most effective. All this will not make women adopt it, however. A large number of lady riders take the exercise to avoid the unpleasant effects of too much fat. Side-saddle riding does not make fat women thin, however, but if anything enlarges the hips. Cross-saddle riding is more effective, because a wider range of muscles can be used, and harder riding indulged in. Let the *terque quaterque adipatæ* bear this in mind.

Booming Medicine.—The insane rush of young men, and women, too, into the profession is chiefly owing to the extravagant puffing of a considerable portion of its members regarding the financial results of their labor. I have a couple of physicians in mind, with whom I was familiar both as a youth and after entering the profession, whose careers are somewhat typical of the "booming" class. The one was the leading physician of a large town. He claimed and was generally accredited with doing a practice of $25,000 a year. He lived quite inexpensively, except in the matter of horses, several of which he always kept to encourage business, and after struggling with a practice of this kind for twenty-eight years, he suddenly collapsed, leaving his creditors in for over $20,000. The other practised in a small village, and for years had done a tremendous practice; kept half a dozen horses, slept little, and had rarely time to take his meals; he lived quite inexpensively, except in the matter of horses; he took but one holiday during his whole career; and he affected, and was generally supposed to be possessed of, fabulous wealth; and after a laborious professional life of forty years, departed, leaving an estate valued at less than $5,000. I can name a score of men in the profession to-day, who have been lured there by the boasting of these two. This unmanly habit afflicts the profession to a disgraceful extent, and does it more injury than any other affliction to which it is subjected.—*Dr. J. P. Armour, in Medical News.*

News of the Week.

The Late Dr. Charles Slover Allen.—The Society of the Alumni of Charity Hospital heard with sincere sorrow of the death of their associate, Dr. Charles Slover Allen, and at the last stated meeting of the Society the following preamble and resolutions were adopted:

Whereas, In the death of Dr. Allen we lose a valued and esteemed associate and friend; a faithful student and accomplished member of our profession; and

Whereas, We acknowledge his friendly interest and the stimulus of his high ideals in our profession, and as a gentleman. It is, therefore,

Resolved, That we express our sincere and heartfelt sorrow at his death. And further, it is

Resolved, That we tender to his bereaved family our profound sympathy. And further, it is

Resolved, That a copy of these resolutions be sent to the bereaved family, to the medical journals, and spread upon the minutes of the Society.

A. T. Mussy, M.D.,
Ralph Waldo, M.D.,
Daniel P. Pease, M.D.

The Late Dr. Alfred Ludlow Carroll.—The members of the Council of the New York State Medical Association deeply mourn the loss of their beloved, erudite, scholarly, and gentle colleague, Alfred Ludlow Carroll, M.D., who has labored so well and so assiduously for the Association, for the profession, and for the people, as the editor of the Association's "Transactions," as a prolific contributor of scientific material, as a promoter of the honor, dignity, and advancement of medical science, and as one of the foremost sanitarians in the land. The Council has therefore resolved that their high appreciation of the noble qualities and of the scientific accomplishments of their late gifted and lamented colleague be recorded in this volume of "Transactions," and in the medical journals, and that a copy of the above be transmitted to the family of the deceased.

E. D. Ferguson, M.D., Secretary. Done by the Council, November 4, 1893.

The Southern Surgical and Gynecological Association.—The sixth annual meeting will be held in the Assembly Room of the Medical Department of Tulane University, New Orleans, La., on November 14, 15, and 16, 1893.

Dr. Joseph Collins has been appointed Attending Physician to St. Mark's Hospital, New York.

Congress of American Physicians and Surgeons.—A meeting of the Executive Committee of the Congress of American Physicians and Surgeons was recently held at the house of the Chairman, Dr. Landon Carter Gray. A local committee of arrangements in Washington was appointed, as follows: Dr. S. S. Adams, Chairman, representing the Pediatric Association; Dr. John S. Billings, the Surgical Association; Dr. H. G. Beyer, the Physiological Association; Dr. S. O. Ritchie, the Otological Association; Dr. S. C. Busey, the Gynecological Association; Dr. W. W. Johnson, the Climatological Association; Dr. J. Atkinson (Baltimore), the Dermatological Association; Dr. William H. Welch (Baltimore), the Association of Physicians; Dr. I. C. Rosse, the Neurological Association; Dr. Samuel Theobald, the Ophthalmological Association; Dr. T. Morris Murray, the Laryngological Association; Dr. D. W. Prentiss, the Genito urinary Association; Dr. Frank Baker, the Anatomical Association. It was arranged that the following subjects should be discussed by the Congress at its next meeting in Washington, in the latter part of May, 1894: The Climatological Association, "Sewer Gas;" Genito urinary Association, "The Surgical Kidney in its Clinical Aspects;" Dermatological Association, "Leprosy in the United States;" Laryngological Association, "Intra-nasal Surgery;" Gynecological Association, "The Conservative Treatment of the Female Pelvic Organs;" Neurological Association, "The Effects of Infectious Processes on the Nervous System." One association is yet to select a subject for discussion. Dr. W. H. Carmalt, of New Haven, Conn., resigned from the sub committee deputed to take charge of the organization of the Congress, and Dr. William H. Welch, of Baltimore, was appointed in his place; so that the committee now consists of Dr. A. L. Loomis, President of the Congress, Dr. Landon Carter Gray, Chairman of the Executive Committee, Dr. Newton M. Shaffer, Secretary of the Executive Committee, and Dr. William H. Welch.

College of Physicians and Surgeons, Richmond, Va.—Dr. John F. Wynn has been elected Professor of Diseases of the Nervous System in this new college.

Death of Dr. H. D. Lachenour, of Easton, Pa.—Dr. Henry D. Lachenour died in Easton, Pa., of apoplexy, November 6th. He was fifty-five years old. Mrs. Lachenour had been at death's door for over a week from heart troubles, and Dr. Lachenour devoted his entire time to her. To his constant attendance and care was due the saving of her life. She showed decided improvement Sunday, and yesterday Dr. Lachenour expressed his gratification to his associate physician, and then lay down on a couch to rest. Two hours later he was dead.

The Death of Dr. W. S. Holbrook.—Dr. W. Stephen Holbrook, died November 5th, in Newark, at the age of thirty.

London has a society of anæsthetists.

No Further Fear of Cholera.—The Treasury Department has semi-officially declared that there was no further fear of cholera being introduced from Europe by immigrants in deciding to recall nearly all the surgeons of the Marine Hospital Service now stationed at the principal European ports. This decision was reached after a conference between Assistant Secretary Curtis and Dr. Wyman, chief of the Marine Hospital Service.

The Superintendents of the New York State Hospitals for the Insane met with the State Commissioners in Lunacy, October 26th. A resolution was adopted providing for the appointment of a committee of three for each quarter of the year, whose duty it shall be to confer and agree on qualities, prices, etc., and obtain proposals from established houses. Superintendents Talcott, Pilgrin, and Wagner were named as the first committee, and are empowered to act until April 1st next. It was voted that the Superintendents frame some plan to make the salaries and wages paid hospital employees more uniform. The commission thinks that some action in this regard has become imperatively necessary. It was decided that the commission appoint a pathologist of recognized

reputation and qualifications, with headquarters in New York City, the expense to be borne by equal monthly payments from the funds of the several State hospitals. A resolution was adopted providing that, in view of the prevalence of small-pox in cities, a general vaccination of the inmates of State hospitals be made.

Dr. Robert Battey, of Rome, Ga., has presented his medical library to the State of Georgia upon the condition that it be placed in a separate alcove in the State Library at the State Capitol as a nucleus of a State Medical Library.

La Grippe is reported to be virulently epidemic in Alaska.

Dr. William H. Galt, one of Louisville's most prominent physicians, died on October 14th, aged sixty-seven. Dr. Galt was at one time one of the editors of the *Louisville Medical News*, and held the chair of Theory and Practice of Medicine in the Louisville Medical College. He was also Health Officer of Louisville for a number of years.

Death of Dr. Clarence Glisan, of Portland, Ore.—The following resolutions were adopted at the last meeting of the Society of the Alumni of Bellevue Hospital:

Resolved, That it is with the deepest regret that this Society has learned of the death of Dr. Clarence Glisan, one of its younger members, who had entered upon a career of honor, usefulness, and success.

Resolved, That in the death of Dr. Glisan his colleagues have lost a friend endeared to them by his noble qualities of heart and mind.

Resolved, That this Society, in expressing its sorrow and appreciation of its loss, desires, in addition, to extend its deep sympathy to his bereaved family.

(Signed) STUART DOUGLAS, M.D.,
D. H. MCALPIN, M.D.,
W. E. STUDDIFORD, M.D.,
Committee.

Obituary.

SIR ANDREW CLARK, M.D.,

LONDON, ENGLAND.

OUR later despatches from London, which appear in the letters of our London Correspondent, and to which our readers are referred in another part of the RECORD, have prepared us for the cable despatches announcing the death of Sir Andrew Clark, of London.

The apoplectic attack with which he was seized some days ago was the beginning of the end. Death occurred November 6th, at the age of sixty-six. Sir Andrew was born on October 28, 1826, and was educated first at Aberdeen and then at Edinburgh, in whose medical schools he took the first medals in anatomy, physiology, chemistry, botany, materia medica, surgery, pathology, and practice of medicine. After assisting Dr. Hughes Bennett for two years in the pathological department of the Royal Infirmary, and acting as demonstrator of anatomy to Dr. Robert Knox, the famous anatomist, he had charge for the following four years of the pathological department of the Royal Naval Hospital at Haslar, where he delivered lectures on the use of the microscope in practical medicine. Dr. Clark took his degree of M.D. from the University of Aberdeen in 1854, after which he went to London, where he became a member of the College of Physicians and Surgeons, and was elected on the staff of the London Hospital. He was made a fellow of the Royal College of Physicians in 1858, and was subsequently its President, and President of the Medical Society of London, and lastly of the College of Physicians, which position he held at the time of his death. He was made a baronet in 1883, and nearly all the honors and titles of the medical profession were his. He was a fellow of the Royal Society, a Doctor of Laws of Cambridge, Edinburgh, and Aberdeen, an honorary fellow of the King and Queen's College of Physicians in Ireland, etc. His works on the different departments of internal medicine are numerous, and are authorities on the subjects of which they treat. Dr. Clark was also renowned as a lecturer on his specialties. The lesson of his life is one which can be taken to heart by every struggling practitioner. In his early career his health was so poor that he was allowed to take his first position in a London hospital not only as an acknowledged reward of merit, but on the assumption that he could not be able to hold it long, and that his death would soon leave it vacant for the next on the list. But by husbanding his resources and by untiring energy in his work he long outlived his competitors and made himself the most famous medical man in England.

Reviews and Notices of Books.

A PRACTICAL TREATISE ON MATERIA MEDICA AND THERAPEUTICS, with Especial Reference to the Clinical Application of Drugs. By JOHN V. SHOEMAKER, A.M., M.D., Professor of Materia Medica, Pharmacology, Therapeutics, and Clinical Medicine, and Clinical Professor of Diseases of the Skin in the Medico Chirurgical College of Philadelphia; Physician to the Medico-Chirurgical Hospital, Member of the American Medical Association of the Pennsylvania and Minnesota State Medical Societies, the American Academy of Medicine, the British Medical Association; Fellow of the Medical Society of London, etc. Second Edition, thoroughly revised, in two volumes. Philadelphia and London: The F. A. Davis Co. 1893.

WE are glad to welcome the second edition of Dr. Shoemaker's practical work on therapeutics, for however numerous books of this class may be there are never too many of them. This field is a wide one, and no man can ever expect to cultivate it exclusively or to cover it thoroughly. Each author contributes something to the general fund of the science of curing disease, the most important part of medicine, which others have omitted, and none, who is not a mere compiler, can fail to bring forward something of practical value. The first volume of this treatise is devoted to a consideration of pharmacy, general pharmacology and therapeutics, and the remedial agents not properly classed with drugs, while the second and larger volume treats exclusively of drugs. Many changes and additions have been made in the second edition of this volume, as would be expected in view of the constant accretion to our stock of drugs, not only those of the coal-tar series but those derived from the vegetable kingdom as well. We should have been glad to see a rather fuller account of serum therapy and of the employment of animal extracts, although, of course, the time is not yet ripe for any definite conclusions to be formulated concerning the real value of this new means of combating special diseases. The book would have been made more useful to the present generation of students had the doses of the various drugs been given according to the metric system as well as in apothecaries' weight. The indexes are very full, and, as far as we have been able to compare them, accurate, but a table of contents to the second volume would have been a convenience to one wishing to study the work systematically.

Society Reports.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON GENERAL MEDICINE.

Stated Meeting, October 17, 1893.

CHARLES E. QUIMBY, M.D., CHAIRMAN.

Albuminuria without Renal Disease.—DR. W. B. VANDERPOOL read this paper. (See page 611.)

Uncomplicated Albuminuria not Dangerous.—DR. ALFRED L. LOOMIS opened the discussion. He thought the paper presented so complete a *résumé* of our knowledge of albuminuria without renal disease that little remained to be said. He would divide these cases into three classes: 1. Those that were best designated functional albuminuria. 2. Those in which there was an excess of excrementitious substances, which the kidneys must eliminate. 3. Those depending mainly upon some disturbance of the venous circulation. In functional albuminuria we were justified in giving a good prognosis. He spoke of the second class of cases as constituting the irritative form of albuminuria, and said this was apt to be attended early by disturbance of the heart and an interference with the nutrition of the vessels. He had long thought that examiners for life insurance made a mistake in rejecting a certain proportion of cases of supposed heart disease when a murmur was the only indication of such disease. And he felt the same with regard to albuminuria. There were, of course, a good many other facts to be taken into consideration in determining the exact importance of albumin in the urine. Allusion had been made to the specific gravity of the urine, but it seemed to him more stress might be laid upon that point. If, under ordinary conditions of life, the urine collected for the twenty-four hours retained a specific gravity of about 1.020, the presence of albumin would have less significance than if the specific gravity was above 1.026 or below 1.014. Again, if the subject were forty-five years of age or older, the albuminuria would have greater significance than if he were younger, for the reason that after forty-five cardiac and vascular changes were likely to occur. Independent of age, the general condition of the patient must be taken into account. Sometimes a patient was found to have albumin in the urine, whose heart-action was feeble and irregular, and yet there was no apparent lesion of the heart, the weak circulation being due, perhaps, to a neurotic state, or failing nutritive changes in the cardiac muscle which render it liable, on violent exercise, to sudden dilatation. If in such a case regulation of the diet and exercise, and the administration of cardiac tonics, caused the albumin to disappear, we conclude that its presence has been due simply to feeble heart action, allowing passive venous obstruction in the kidneys. Of course, if this condition becomes persistent, renal changes will take place.

The irritative form of albuminuria seemed to the speaker to be the most significant, if it were attended by a pulse of high tension and urine of high specific gravity, conditions which pointed with some certainty to beginning fibroid changes in the arterial system. In such patients a gouty, lithæmic, or other abnormal condition was likely to attract attention in addition to the albuminuria. Very much could be done to cause disappearance of the albumin temporarily, yet when such patients reached the age of sixty or sixty-five they were likely even to present other evidences of interstitial nephritis.

Although some claim that the kidneys cannot excrete albumin long without showing evidences of nephritis, yet Dr. Loomis doubted very much if the mere presence of albumin in the urine in a case of functional albuminuria would excite a nephritis. If nephritis should follow such a condition there were many possible causes which must be excluded before accepting the statement that it was due to the presence of albumin in the urine.

How Albumin Gets into the Urine.—DR. W. H. PORTER expressed some views upon how albumin got into the urine. He thought albumin would not filtrate through the blood-vessels unless these were in a pathological state. The greater the amount of albumin in the urine, the greater the change in the vessels or their epithelium. He was disposed to regard albumin as a by-product of oxygenation which was drained off, when in excess, by the renal cells. This seemed to him to be a pathological condition. But if the amount of urea, uric acid, lactic acid, or glucose in the urine were normal, he would agree with Dr. Loomis that little harm was likely to occur unless the albuminuria remained constant for a long time; in this event it might result in overtaxing the renal cells and cause a lesion. If there were also excess of uric acid, oxalic acid, lactic acid, and glucose, it would point to a retrograde change in the renal cells and a bad prognosis. In the first variety, regulating the diet and habits of the patient would be sufficient to render the prognosis favorable. High specific gravity of the urine indicated to him incomplete oxygenation all the way from the stomach to the kidney, and with this condition albuminuria gave an unfavorable prognosis.

DR. R. C. M. PAGE agreed with the opinions already expressed, that temporary albuminuria in slight degree often existed without renal lesion. Moreover, temporary albuminuria might occur in connection with a number of diseases. During the late epidemic of grippe, several of his patients had temporary albuminuria, one in so high a degree that for a time he felt grave apprehension regarding the condition of his kidneys. In all of these cases the nervous prostration and mental disturbance were marked features of the attack of grippe. But in all the albumin disappeared and had not returned. Albuminuria was sometimes seen in dyspepsia, especially those forms of dyspepsia which were accompanied by a great deal of nervous prostration, and he thought the nervous element probably had something to do with causing the appearance of the albumin in the urine. Perhaps there was vaso-motor disturbance, causing leakage through the renal capillaries. Thus, the presence of albumin in the urine was no positive proof of disease of the kidneys, and in all cases there should be microscopic examination of the urine. If casts were found, the prognosis became grave. It was also grave even without casts, if the amount of albumin were large, and especially if the patient showed a tendency to dropsy. As to treatment, let it be dietetic and directed against the exciting factors.

A Case of Marked Functional Albuminuria of Long Standing.—DR. GEORGE B. FOWLER thought the medical profession to-day was fully cognizant of the fact that there were various kinds of albuminuria, some of pathological import, others not. He had thought he was acquainted with all forms until 1888, when he came to examine the urine of a man whom he had known from boyhood, and was astonished to find that it contained much albumin. No cause could be discovered. The specific gravity of the urine ranged from 1.020 to 1.024; it contained no casts. The man's health was good, and yet the albumin in the urine persisted in spite of all possible regulations with regard to diet, administering of heart tonics, etc. Finally, the consultant recommended the granting of a life insurance policy in spite of the large amount of albumin in the urine.

Should Nitrogenous Food be permitted in Renal Disease?—The Chairman, DR. QUIMBY, inquired whether it was permissible under certain conditions, at least, to permit patients with renal disease to partake of a nitrogenous diet; or should they be limited to carbo-hydrates. The question was suggested by a case in which he was reprimanded by an able member of the profession for allowing the patient albuminous food.

Avoid an Excess.—DR. FOWLER thought the matter of diet in renal disease might be carried too far. A little common sense would answer the question. Diseased kidneys must excrete a little albuminous matter as well as healthy ones, and what was required for the patient's health was a proper amount of carbo-hydrates, of fats, and of albuminoids, not an excess of any one of these elements. There was likely to be heart-disease in these

cases, with derangement of digestion, and vegetable foods, or starches and sugars, were even more likely to ferment and cause trouble than albuminous elements. Moreover, vegetables were not free from albuminous matter.

Dr. Louis Waldstein had seen a great many cases of albuminuria, and had found that one could not judge of the gravity of the condition without long observation of each patient. He was unable to say whether any one of his cases had passed into organic lesions of the kidneys. In all there had been an increase in the amount of urea—the normal being about two per cent., this quantity was doubled. He had also been impressed by the increase of phosphates and specific gravity. He had been led to think that the condition was an expression of increased metabolism, rather than of suboxidation. Most of the subjects were overworked, mentally if not physically. Many were not great eaters, and many had dieted to excess on the supposition that the food was the cause. They were business men, with much work and worry, who awoke in the morning even more languid than when they had retired. When he had insisted upon rest the albumin disappeared, the specific gravity of the urine fell, the amount of urates became less. A change of diet without rest had been of little benefit.

Dr. W. H. Porter said, with regard to diet, that to him the problem was a very simple one. The lungs were capable of conveying into the blood a certain amount of oxygen in the twenty-four hours, about 750 grammes; with that a certain amount of food could be oxygenated, and if more were taken it would be waste, and cause the system, especially the weak organs, to be overtaxed in getting rid of it. The system called for about a given amount of albuminoids, of sugars, starches, and fats, and when the right proportions were observed it was carried on most easily. Starting with this data, it was yet to be borne in mind that animal food was more readily utilized than vegetable food. If an anæmic person should take 640 grammes of food in the twenty-four hours, composed of 7 ounces of bread, 14 ounces of meat, 2 eggs, and the rest milk, he would still have a margin of over 100 grammes of oxygen, and could live on such a diet without exceeding his oxygenating capacity. His experience had been that a diet based on these principles would soon cause the urine to return to normal.

Dr. Vanderpool said that in organic kidney disease his experience had led him to favor a mixed diet, and he thought it would be best also in functional albuminuria. The old rule, to place the patient upon a milk diet, led to digestive disturbances.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Nineteenth Annual Meeting, Held at Indianapolis, Ind., October 4, 5, and 6, 1893.

First Day, Wednesday, October 4th.

The Association met in Plymouth Church, and was called to order by the Chairman of the Committee of Arrangements, Dr. George J. Cook, of Indianapolis. Divine blessing was invoked by the Rev. Frederick E. Dewhurst. Governor Matthews was introduced and delivered an Address of Welcome.

Fibroid Tumors of the Uterus.—The President, Dr. R. Stansbury Sutton, of Pittsburg, was introduced, and delivered the President's address. He selected for his subject "Fibroid Tumors of the Uterus." After giving a definition of these tumors, the author dwelt upon their etiology, which he said is still a mystery. They are more frequent in the black than in the white race. In both races they are more frequent in the body than in the neck of the uterus, and more frequently situated in the posterior than in the anterior wall. After the menopause is established these tumors generally disappear, unless they have undergone cystic degeneration. Bearing on this point, Dr. Sutton reported an anomalous case. The patient was forty-three years of age, she had never menstruated in her life, had never shown any physiological evidence of ovulation, had been twice married, was then a widow and childless. She had for ten years a large fibromyoma of the uterus, which thus far gave no evidence of atrophy.

With regard to the pathology, the tumor always has its origin in the substance of the uterine wall, or subperitoneal connective tissue. The symptoms accompanying the presence of these tumors, in various localities and stages of growth, are widely different. However, the class of indications are patent as found in the vast majority of cases, and may be tabulated as follows: 1, vague pain in the pelvic region; 2, pain referred to the front or back of the leg; 3, irritability of the bladder or rectum; 4, uterine tenesmus; 5, menorrhagia or metrorrhagia; 6, dysmenorrhœa; 7, profuse leucorrhœa; 8, serous discharge from the uterus.

The diagnosis of very small fibromyomata, when many of the leading symptoms are absent, is considered extremely difficult. As far as the medical treatment is concerned, but little can be done for the relief of patients suffering from fibromyomata, and nothing for those suffering from those tumors which have undergone cystic degeneration. Surgically, there are but two routes by which solid uterine tumors can be removed—either through the vagina or by abdominal section. With the exception of small tumors with a well-defined pedicle, all subperitoneal fibromyomata are reached only by section of the abdominal wall. Dr. Sutton in one case divided the posterior wall of the vagina, and through this opening delivered the tumor.

SECTION ON GENERAL MEDICINE.

Dr. O. Everts, of College Hill, O., Chairman.

Forensic Medicine.—This paper was read by Dr. C. G. Comegys, of Cincinnati. The author had come to the conclusion, from his experience, that there are but few lawyers sufficiently informed in medical science to conduct a case in the interests of truth and justice, especially the most important cases in medical jurisprudence. Every physician, as an expert witness, must have observed the embarrassment of lawyers in trying medical cases. They ask questions enough, but from their lack of medical experience they are incapable of thoroughly understanding the answers of a witness, so that the proper interpretation of them bearing upon the history of a case at the bar may be reached, and when endeavoring to give the court and jury clear views of the subject by additional questions, they often confuse the whole investigation. This disagreeable state of affairs is usually brought about by certain lawyers who have armed themselves by a superficial study of medical works for the occasion. Dr. Comegys believes that the high order of legal men will welcome well-trained men in medicine as coadjutators in medicine in the lofty work of establishing justice.

Problems of Public Interest Concerning the Insane.—By Dr. Orpheus Everts, of College Hill, O. The author said there are several problems of public interest involved in the present relations of society to the insane. Among the more important of these are questions of dependency and curability of the insane, and the preventability of insanity. The author summarized his conclusions as follows:

1. Intelligent provision for the insane implies provision for various classes, according to the capabilities of enjoyment and the exercise of variously impaired faculties.

2. Public provision for whatever class of insane persons implies housing, clothing, food, sanitary and moral discipline, amusement and employment for such as are capable of being amused and employed, and medical treatment for the sick. The essential features of such provision are adaptability to the needs of each distinctive class.

3. Great, expensive, architecturally imposing palaces, providing alike for all classes, however serviceable they may have been, æsthetically considered, in time past, as they unquestionably were, are no longer necessary nor

appropriate to the needs indicated. So long as the insane are comfortably housed, each class according to its condition, it is comparatively unimportant whether it be in large or small houses, cottages or palaces, connected or detached, in high or low buildings.

4. It is important that the insane of all classes be well fed, under careful supervision; but whether in small or large dining-rooms, by groups or congregations, is of little consequence; that it should be a matter of convenience rather than of number.

5. It is important that public institutions for the insane be well organized and administered.

6. It is wise to retain in office capable men, who have demonstrated their fitness by successful management of affairs, so long as their capabilities continue to be elastic.

Chorea in its Relation to Rheumatism.—This paper was contributed by Dr. I. N. Love, of St. Louis. The author said that recently the pathology of this disease has been cleared up to a very considerable degree, so that now it is a definite affection, and one especially incident to childhood. Dr. Love reported a case of chorea occurring in his practice with a marked history of rheumatism, it being one of ten cases observed and illustrative of this class. The cases did not occur successively. Between them other cases presented themselves minus the rheumatic history, but four of the number occurred in rapid succession with a pronounced rheumatic history. Of the entire ten, seven were girls.

Among the exciting causes of the disease are irritation in the nostrils and adenoid growths in the vault of the pharynx. Inasmuch as Kirkes, Tuckwell, Hughlings Jackson, and Bastian support the embolic theory of the disease, and in consideration of the fact that chorea is so frequently associated with endocarditis, we should be on the alert to interrogate the heart when called to a case of chorea. As matters now stand, we have numerous exciting causes resulting in chorea.

Chorea: its Pathology and Treatment.—This paper was contributed by Dr. H. M. Lash, of Indianapolis. So much uncertainty has existed regarding the pathology of chorea that [illegible] and rapid [illegible] the above treatment. But, as a rule, if the case has been neglected until pelvic peritonitis has occurred, with its tendency to adhesions and recurrence, we will save many years of suffering, if not life itself, by advising removal of the appendages after a sufficient trial has been given to conservative treatment.

Frequently, in the puerperal state we have a pelvic peritonitis arise without affecting the tubes, the inflammation spreading directly through the uterus; there is an exudate formed which rest and proper treatment will absorb and leave the appendages healthy, so that later pregnancy takes place and the patient goes on to full term. In these cases, if suppuration occurs, laparotomy should be advised. In tubercular salpingitis the question of removal will depend wholly upon the amount of general systemic infection. The author believes that nearly all suppurative diseases of the tubes and ovaries are due to gonorrhœa, his experience leading to this belief.

The author closed with a few words on the value of electricity in the treatment of inflammations of the uterus and appendages. He values this very highly, and in the catarrhal forms of endometritis in young girls and primiparæ, we can obtain a cure if sufficient time is given. He applies the positive pole intra uterine, and the negative in the form of a broad electrode over the whole abdominal region, using a current strength of from twenty to fifty milliampères for five minutes, every third day. It requires from fifteen to twenty applications to complete a cure.

[illegible] cause of its singularity, in being more treacherous and insidious in its manifestations than any other affection that is met with by the practitioner of medicine.

The uncertainty of diagnosis had caused some excellent practitioners to adopt the pernicious habit of diagnosticating and treating all cases of sore throat, whether simple or malignant, as if they were true diphtheria. True, the treatment designed for a diphtheria may cure a tonsillitis, but inestimable harm may have been done in causing an unnecessary alarm on the part of the patient's family, and the disagreeable inconvenience that accompanies isolation of the patient and quarantining of the family, to be followed by the mockery of disinfection of non-infected apartments, and perhaps destruction of clothing and furniture. On the other hand, a case of diphtheria, diagnosed as a simple tonsillitis, may be the cause of breaking up a school or producing an epidemic, with an indefinite amount of sickness and many deaths. A case was cited in point.

Dr. Culbertson then referred to the importance of utilizing the science of bacteriology, and mentioned the plan adopted by the New York City Board of Health, of having undertaken to provide laboratory facilities for all practitioners of medicine in that city free of charge.

A Treatment Giving a Low Death-rate in Cases of Diphtheria in Hospital and Private Practice.—Dr. William A. Galloway, of Xenia, O., read this paper. The subject was treated from the standpoint of recent hospital practice, two hundred and thirty-four cases with a death-rate of fourteen per cent., under favorable sanitary surroundings. The paper embraced reports from private practice of physicians who had given the treatment faithful trial during the past three years, who unhesitatingly commended its value, and all were able to show a death-rate below ten per cent. The subject was divided into the hygienic, in which the most careful attention was paid to the isolation and surroundings of patients; the constitutional, and local topical treatment, the latter being considered by the writer as secondary in importance. Under constitutional treatment, immediately the nature of the disease was suspected, the writer gave one grain of calomel for each year of the patient's age up to eighteen, repeating the dose in four to six hours, and met the action of the mercurial with copious hot water injections. This treatment was persisted in until the full action of the calomel on the liver and kidneys was obtained, relieving these two important excretory organs of the paretic condition caused by the absorption of the toxalbumin product of the Klebs Löffler bacillus. Improvement in the patient's appearance was immediate, and the mercurial acted freely. The quantity of foul-smelling grass-green dejecta resulting is astounding. There is no fear from salivation, as under the most heroic use of mercurials no symptom of salivation has been observed by the writer or his friends. Internally, corrosive sublimate was given up to one-eighteenth of a grain, with full doses of tincture of chloride of iron, and alcohol, hourly at night and during the day. Local topical treatment consisted of peroxide of hydrogen, one-quarter solution, for cleansing the throat, which was commended, while as an escharotic twelve grains of salicylic acid to one drachm of alcohol were used twice a day by the physician only. It proved of great value in the writer's hands. This escharotic is very powerful, and should be used carefully if needed.

The Study of a Fatal Case of Essential Tachycardia.—This paper was contributed by Dr. John C. Sexton, of Rushville, Ind., in which he detailed the symptoms and clinical features of a case of essential tachycardia that died after thirty-five days' illness. The attractive feature of the case was the response to manipulative efforts, electrical and other, by the doctor, to produce stimulation of the pneumogastric nerve and thus to slow the heart. The paper then reviewed the ordinary symptoms of heart hurry as presented in the literature of the subject, and some further remarks concerning the causation, symptomatology, and treatment.

Papers were also read by Drs. R. E. Haughton, of Midland, Tex.; A. Ravogli, of Cincinnati, and others.

General Medicine.—The address on general medicine was delivered by Dr. James F. Hibberd, of Richmond, Ind. His conclusions were: 1. That there is a rapid progress being made in preventive medicine. 2. That our present conception of the complicated organization of the human body is based on the theory that the Creator in the beginning endowed vitalized matter with a perpetual law of virtue, of which man has been developed,

step by step, from primitive protoplasm. 3. That there is no longer dubiety in the proposition that the cell is the unit of vital activity, and that all living beings are a single cell or an organization of cells and cell products. 4. That the influence of the mind on vital activities, normal and abnormal, is not recognized as it should be, and that there is a line of study that would, if properly pursued, dissolve the agnosticism that has in the past embarrassed a knowledge of the reciprocal relations of matter and mind

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SECTION ON OBSTETRICS, GYNECOLOGY, AND ABDOMINAL SURGERY

DR. ARTHUR W. JOHNSTONE, of CINCINNATI, CHAIRMAN.

Ovariotomy in the Aged.—The first paper in this section was read by DR. RUFUS B. HALL, of Cincinnati. The author confined his remarks to patients who were seventy or more years of age. He said it was generally conceded as true that any operation upon the old did not promise as good results as the same operation would upon the young or patients in middle life. Especially was this true in reference to all abdominal operations necessitating a hard strain upon the system from shock, or from traumatism to vital organs during the operation, as we not infrequently have in the removal of large ovarian tumors. Dr. Hall maintains that the death-rate is not greater than that which usually follows the same delayed class of operations on women between forty and fifty years of age. He had had but three ovariotomies upon women above seventy years of age. In each of the first two cases the friends of the patients hesitated to have the operation made on account of the advanced age of the patients. In each of these the operation was deferred until the patient was *in extremis*.

Dr. Hall then detailed three interesting cases of ovariotomy performed on patients, aged respectively seventy, seventy years and six months, and seventy-two years. Judging from the low mortality of the reported cases and from the work of the best known operators, the author is constrained to believe that ovariotomy in old women, if the kidneys are healthy, is as safe as in middle life.

The Value of a Close Observation of other Men's Work.—This paper was read by DR. WILLIAM H. LINK, of Petersburg, Ind. He said it is by the tireless energy of originality, and the endless application of original methods to both the expected and the unexpected in surgery, that has thus far pushed our work and its underlying science toward perfection. By close and frequent observation, defects in technique and improper application of surgical measures may be noted, and, having been recognized, may be avoided. There is no field in which object-lesson teaching is so effective, so fruitful of valuable practical results as in gynecological surgery. The observer may not always know whether the operation he witnesses carries the patient on to recovery or the contrary; but, if a close observer, he is improving his own surgical judgment. He is studying, rejecting, or adopting methods and aphorisms as they impress his intelligence or his reason approves. By seeing work done under varying conditions and with different results, we readily come to the conclusion that a private hospital is by no means necessary to successful work; that the pure air of a country or village home, or a clean room in a private residence in a city, is as good a place for surgical work as the most painted and gilded hospital, and that no one need hesitate because his patient cannot have the supposed advantages of some place especially set apart for the sick.

Intestinal Obstruction Following Abdominal Section.—DR. L. H. DUNNING, of Indianapolis, Ind., read a paper with this title. Of the complications following abdominal section, few are more fatal than occlusion of the intestines. It may appear in a few hours after the section, or not until several weeks have elapsed. In this paper the author dealt only with acute intestinal obstruction. The author is conscious of having met with but a single case in one hundred and thirty abdominal sections, yet this case occurred two and a half weeks after what he had considered a very successful ovariotomy.

The question of the administration of cathartics in cases of suspected or threatened occlusion of the intestines, is one oftentimes most difficult to decide. Under such circumstances he is inclined to the belief that during the first week after section cathartics are indicated, and he prefers to administer one-grain doses of calomel every hour for a few times, then administer two-drachm doses of Epsom salts every two hours, until an action is obtained, or it is demonstrated that a harmful effect is being produced.

A distinct understanding of the pathological conditions possibly present, must guide the operator in his search for the cause of the occlusion, and when found it should be dealt with in the shortest possible time consistent with the permanent cure of the patient.

The Present Status of the Treatment of Uterine Fibroids.—This paper was contributed by DR. XAVIER O. WERDER, of Pittsburg, and in the absence of the author was read by DR. THOMAS B. EASTMAN, of Indianapolis. For the sake of convenience, the author divided the treatment into the symptomatic and the radical, and confined himself to those views which seem to be generally accepted by the leading and unbiassed authorities of the present day. The principal symptoms produced by uterine fibroids requiring our attention are hemorrhage and pain. Hemorrhage is one of the most constant and dangerous complications, and is due to a diseased and hypertrophied condition of the uterine mucosa and hyperplasia of its blood-vessels (Wyder), or, according to the later researches of Semb, to an hypertrophy of the uterine muscles accompanying the growth of the myoma, with a simultaneous hyperplasia of the blood-vessels. The operations practised for the radical cure of myomatous growths are vaginal enucleation, removal of the appendages, enucleation by laparotomy, and supra-pubic hysterectomy. The author then considered these operations at length.

[illegible] important cases in medical jurisprudence. Every physician, as an expert witness, must have observed the embarrassment of lawyers in trying medical cases. They ask questions enough, but from their lack of medical experience they are incapable of thoroughly understanding the answers of a witness, so that the proper interpretation of them bearing upon the history of a case at bar may be reached, and when endeavoring to give the court and jury clear views of the subject by additional questions, they often confuse the whole investigation. This disagreeable state of affairs is usually brought about by certain lawyers who have armed themselves by a superficial study of medical works for the occasion. Dr. Comegys believes that the high order of legal men will welcome well-trained men in medicine as coadjutators in medicine in the lofty work of establishing justice.

Problems of Public Interest Concerning the Insane.—By DR. ORPHEUS EVERTS, of College Hill, O. The author said there are several problems of public interest involved in the present relations of society to the insane. Among the more important of these are questions of dependency and curability of the insane, and the preventability of insanity. The author summarized his conclusions as follows:

1. Intelligent provision for the insane implies provision for various classes, according to the capabilities of enjoyment and the exercise of variously impaired faculties.

2. Public provision for whatever class of insane persons implies housing, clothing, food, sanitary and moral dis-

Tuberculosis of the Peritoneum, with Report of Cases.—This paper was read by DR. H. O. PANTZER, of Indianapolis. The author said that the prognosis and treatment of peritoneal tuberculosis have changed within the last decade. The accidental discovery of its curability by laparotomy has shifted its clinical relations. The author then quoted the conclusions of Dr. J. Whitridge Williams, from the Johns Hopkins Hospital Reports, 1892,

on tuberculosis of the female generative organs. He reported a case of primary genital tuberculosis, giving rise to a tubercular peritonitis, and tubercular disease of the abdominal parietes. Case II. was one of primary genital tuberculosis following a childbed sacculated ascites resembling an ovarian tumor. Laparotomy was performed and the patient recovered. Case III. was one of genital tuberculosis complicated with a suppurative infection and pelvic peritonitis. Laparotomy was done, followed by recovery of the patient.

This disease, from being regarded as a fatal and most intractable affection belonging to the domain of internal medicine, since its accession to the realm of surgery has come to be regarded as quite submissive. A mistaken diagnosis had repeatedly led to the opening of the abdominal cavity. Instead of an ovarian tumor, an enlarged gall-bladder, a hydronephrosis, or some other legitimate object of surgical interest being found, tubercular disease of the peritoneum in some of its multiple forms presented itself. The abdomen was closed without any attempt at treatment, or at most the ascitic fluid was evacuated. It was noted that these cases did better afterward, and that some fully recovered. In 1884 Koenig advocated laparotomy as a curative measure for peritoneal tuberculosis, and the operation has been done by other surgeons since.

Treatment of Diseases of the Uterine Appendages.—Dr. William H. Humiston, of Cleveland, O., read a paper on this subject, in which he said the frequency and importance of diseases of the appendages are recognized by all practitioners of medicine. The early recognition of the same is of unusual importance, as by instituting proper treatment at once we save a large percentage of them from a major operation and a prolonged convalescence. Simple inflammatory conditions of the tubes and ovaries, before extensive adhesions take place, can be successfully treated by rest, boroglyceride, and iodine tampons, long-continued hot water douches, thorough curettement of the uterus, followed by a course of galvanism. He had cured a few cases where the ovaries were prolapsed and somewhat adherent, by adding massage to the above treatment. But, as a rule, if the case has been neglected until pelvic peritonitis has occurred, with its tendency to adhesions and recurrence, we will save many years of suffering, if not life itself, by advising removal of the appendages after a sufficient trial has been given to conservative treatment.

Frequently, in the puerperal state we have a pelvic peritonitis arise without affecting the tubes, the inflammation spreading directly through the uterus; there is an exudate formed which rest and proper treatment will absorb and leave the appendages healthy, so that later pregnancy takes place and the patient goes on to full term. In these cases, if suppuration occurs, laparotomy should be advised. In tubercular salpingitis the question of removal will depend wholly upon the amount of general systemic infection. The author believes that nearly all suppurative diseases of the tubes and ovaries are due to gonorrhœa, his experience leading to this belief.

The author closed with a few words on the value of electricity in the treatment of inflammations of the uterus and appendages. He values this very highly, and in the catarrhal forms of endometritis in young girls and primiparæ, we can obtain a cure if sufficient time is given. He applies the positive pole intra uterine, and the negative in the form of a broad electrode over the whole abdominal region, using a current strength of from twenty to fifty milliampères for five minutes, every third day. It requires from fifteen to twenty applications to complete a cure.

SECTION ON GENERAL SURGERY.

Dr. W. N. Wishard, of Indianapolis, Chairman.

Some Illustrative Cases of Nasal Headache.—The first paper in this section was read by Dr. H. W. Loeb, of St. Louis, with the above title. The author, at the last meeting of the Missouri State Medical Association, presented a paper upon nasal headaches in which the following list of such conditions was suggested as possessing an etiological significance in this regard: Acute inflammations of the nasal mucous membrane, chronic rhinitis, rhinoliths and foreign bodies, septal deformities, deflections, spurs, ridges, diseases of the accessory sinuses, chronic atrophic rhinitis, and anything which causes the middle turbinated tissues to press against the septum. In headaches of the following characters, it was stated that a nasal origin might be expected: 1, Frontal headaches; 2, hemicrania, starting about the orbit; 3, long-continued headaches; 4, headaches of which successive attacks are identical or similar; 5, headaches increased or originated by acute rhinitis; 6, headaches associated with evident disease of the nose or accessory cavities.

In the present paper the author presented cases which illustrated the characteristics, both symptomatic and causal, as stated in the before-mentioned contribution.

Dr. B. Merrill Ricketts, of Cincinnati, reported several interesting surgical cases, and exhibited photographs of the same.

Treatment of Fractures of the Leg, by Dr. J. T. Berghoff, of St. Joseph, Mo. In treating fractures of the leg, the author said the latter should never rest on the bedding, but should be suspended. He cares not how well the surgeon may co aptate the broken bone and protect the same with splints and bandages, or plaster-of-Paris, if the limb rest on the bedding, by each movement of the body of the patient the fracture is bound to move. The process of repair is exactly the same in soft tissues and bones. Why do we have union by first intention? Because we co-aptate the wounds exactly, and keep them so. The wound heals sometimes in three days, at the farthest a week. But to put the broken limb in an immovable condition and keep it so without great suffering to the patient, cannot be done under the old system.

Dr. Berghoff then described an apparatus or splint, the outgrowth of patient study for twenty years, but more particularly the last ten years. The apparatus is also adapted for treating diseases of the hip, knee, and ankle joints, as the extension can be adjusted as the case requires, the joints being kept immobile.

Incurability of Advanced and Extreme Cases of Talipes Equino-varus by the Means and Methods in Vogue at the Present Time; Suggestion of a Way to Remove the Deformity without Disturbing the Usefulness of the Extremity, by Dr. Louis Bauer, of St. Louis. Dr. Bauer presented a plaster cast of a talipes varus in which the weight of the body rested upon the dislocated astragalus and calcaneum. He produced also the skeleton of a leg and foot of a person who died while in this condition. He showed that there was complete dislocation of the astragalus, that the knee-joint surfaces had formed between that bone and the calcaneum, whereby the weight of the body rested entirely upon the end of the astragalus and calcaneum; that the scaphoid and other bones of the foot bore little, if any, part in sustaining the weight of the body. It has been found impossible, in extreme cases of talipes, to restore the foot to its natural position by tenotomy, or by *brisement forcé*. In one case, after six years trial, the doctor had proposed an amputation similar to Chopart, whereby all bones anterior to the astragalus were removed. The operation would leave a linear scar anterior to the astragalus in its new position and would be out of the way, and in such direction the artificial foot could be easily adjusted. He had not had an opportunity of trying this method, but felt sure that this amputation was a proper method in those cases where, after long-continued efforts, reduction could not be effected. He also reported a case where there was extreme lateral curvature of the spine from distortion of the pelvis, in a young musician. He became satisfied that the deformity was due to the unnatural position, and therefore directed a long splint applied reaching from the axilla to the foot, and the pelvis was

gradually pressed toward the splint by an appropriate bandage. After a period of time, not stated by the speaker, the patient recovered.

In the discussion which followed Dr. Marsee, of Indianapolis, took strong ground againt tenotomy, tarsectomy, or amputation in these cases, holding the position that by *brisement forcé* with a wrench or club-foot stretcher, he could bring the most refractory case in normal position.

Dr. Wm. E. Wirt, of Cleveland, believes in resection of some of the bones, after the method of Phelps, in cases where tenotomy or linear osteotomy had proved unavailable.

Dr. John B. Hamilton, of Chicago, agreed with Dr. Marsee in recommending the use of a club-foot stretcher or wrench. He would not hesitate to employ a force sufficient to comminute the dislocated astragalus, if it were necessary to put the foot in position. He had seen no bad results following osteoclasis. The difference between osteoclasis, osteotomy, or tarsectomy, is precisely that between a simple and open fracture. In regard to abrasions of the skin, he had not met with any, and strongly preferred osteoclasis.

New Devices for Cutting Bone, by Dr. Allan DeVilbiss, of Toledo, O. Dr. DeVilbiss exhibited a surgical motor with various forms of saws and drills, which he developed through a series of practical tests. He had used them first upon the dead, afterward upon the living. These instruments were adapted for operations upon the skull, maxillary bone, ribs, nasal bones, etc.

The Treatment of Old Cases of Hip Disease.—Dr. William E. Wirt, of Cleveland, O., read a paper on this subject. He said there is no doubt that if convalescent cases of hip disease were carefully and persistently treated during a long period of complete recovery, whatever deformity had existed up to this time, and that which accompanies this period, could be entirely overcome without operation. When shall a case of hip disease be considered to have progressed far enough to permit the removal of the extension-splint and the substitution of a convalescent-brace? The solution of this problem was a matter of judgment. It is better to allow the extension-splint to be worn unnecessarily long than for the substitution to be made too soon. The deformities requiring correction are flexion and adduction. Dr. Wirt had been surprised in several instances of old cases of hip disease with considerable deformity, where, after the application of continuous extension in bed for a few weeks, the deformity would be considerably reduced. After a trial of extension in bed with a failure to reduce deformity, there remains as a means of correction: 1, *brisement forcé*, with or without myotomy, tenotomy, faciotomy, etc.; 2, osteoclasis; 3, osteotomy. These operations were then considered by the author under their respective heads. Osteoclasis and osteotomy are reserved for those cases in which there exists bony union or a fibrous anchylosis of a very firm character. The author reported sixteen cases following Grant's operation.

A Case of Senile Gangrene Treated by Amputation.—This paper was contributed by Dr. G. W. H. Kemper, of Muncie, Ind. The patient was a farmer, aged seventy-three. After detailing the particulars of the case the author drew the following deductions: 1. While the gangrene is confined to one or two toes, it is best to defer amputation. If the disease extends to the dorsum of the foot amputation is proper. 2. Amputation below the knee is rarely successful, owing to lack of proper blood-supply and tendency to recurrence of gangrene in the stump. 3. Amputation through the thigh will save a large per cent. of the cases, and especially so when the subjects are free from a general disease. Mansell-Moullin observes that usually the thigh is small and wasted in the lower third; the artery is sound in Hunter's canal; the flaps are well supplied with blood, and old people as a rule resent operation very slightly. Their tissues are not prone to inflammation. 4. When amputation has been performed below the knee, and gangrene appears in the stump, unless the patient is exhausted, it will be proper to perform a secondary amputation above the knee.

A New Method of Operating at the Ankle-joint for Injuries of the Foot.—Dr. I. N. Quimby, of Jersey City, N. J., read a paper with this title. The method consists of making a curvilinear incision across the dorsum of the foot, commencing anterior to and a little below the internal malleolus, and terminating at a corresponding point a little below the external malleolus, and then uniting the two extremities of the dorsal section by an incision across the sole of the foot, forming an anterior and posterior flap, similar to the operation performed by Pirogoff, of Russia. After forming a short anterior flap and turning it back, he then dissects out the astragalus from its attachments, being careful to keep close to the bone; then forming a linear posterior flap from the sole of the foot, he makes a careful dissection, exposing the anterior half of the calcaneum. This being done, and the soft parts being well retracted by an assistant, the saw is applied so as to remove nearly the anterior half of the bone by an incision from above downward and from behind forward. The sharp edges of the remaining portion of the bone are then rounded off, and the sawed surface is applied directly to the articular surface of the tibia between the malleoli, without removing any part of the cartilaginous surface. After stitching up the flap in the usual way, a strap of adhesive plaster is applied, three or four inches in width, extending from the upper portion of the gastrocnemius muscle to a corresponding point on the anterior surface of the leg, passing directly over the os calcis, so as to keep closely and firmly in apposition to the articular surface of the tibia, which is kept there until the union of bones has taken place.

The Bacteria of the Surface.—Dr. Frank J. Thornbury, of Buffalo, read a paper under this title, in which the latest researches were set forth, rational mechanical means of disinfection summarized, and the non-utility of antiseptics proclaimed. The varieties of organisms which the cutaneous and mucous surfaces present in great abundance, comprise moulds, yeast fungi, bacilli, cocci, color- and odor-producing bacteria. The hairy regions, as the axillary space, and the interdigital folds, are the places of predilection for the bacteria upon the cutis. Myriads of microbes are present in the oral cavity, the intestinal tract, the genital tract of the female, the male urethra, and in the conjunctival secretion and cerumen of the ear. Among the masses are germs which are pathogenic, as the Fehleisen streptococcus of erysipelas. The cleansing of the surface constitutes one of the most important duties of asepsis. This pertains especially to the physician's own hands. The disinfection cannot be accomplished by the use of antiseptics, so called, which do not even reach the bacteria imbedded in the substrata of fat and dirt. The disinfection must be mechanical, dissolving away the glandular secretions, dead epidermal cells, vegetable and albuminous substances. For the latter purpose soap, hot water, and brush are used, aided by alcohol and ether, and rubbing with sterile towels. Baths are an important adjunct to asepsis, and one or a number should be administered previous to operation.

The Etiology, Diagnosis, and Treatment of Ulceration of the Rectum, by Dr. Joseph M. Matthews, of Louisville. The author dealt with this subject in a general way. As a matter of convenience, he classified these ulcers under four heads: Benign, malignant, tubercular, and specific. He said to this division there might be a valid objection based upon correct pathological grounds. For instance, in this classification he makes the term malignant synonymous with cancer, and yet the tubercular ulcer may in truth be malignant without assuming the characteristics of cancer. Again, some writers would have us believe that a tuberculous patient is closely akin, at least, to a syphilitic one, or *vice versa*. Benign ulceration is not so frequently found in the rectum as is supposed. Whenever the author meets with a well-defined ulceration existing in the rectum, he immediately begins to suspect some special diathesis. It is

only when the facility of defecation is interfered with that any danger is to be feared. The lumen of this portion of the gut is not narrowed by any ordinary causes. For these and other reasons, Dr. Matthews has long since been forced to believe that such ascribed causes as pregnancy, dysentery, etc., were not great factors in producing ulceration of the rectum. The speaker then dwelt upon malignant ulceration of the rectum, saying that the rectum is a favorite seat for cancer. Many times the disease is overlooked entirely, or diagnosticated as some other affection. It has occurred to him several times to have had patients referred to him for some trivial rectal trouble, when he found cancer instead. The more he practises, the more he is convinced that syphilis is responsible for fully one-half of the cases of severe ulceration of the rectum.

The treatment must in every individual case depend upon the known character of it. We cannot treat a benign ulcer as we would a malignant one, nor a tubercular ulcer as a specific one, nor the last named as the first named. Benign growths of the rectum require local applications; malignant, extirpation; tuberculous, the curette; syphilitic, antisyphilitic and local medication, extirpation, colotomy.

Inguinal Colotomy.—Dr. Leon Straus, of St. Louis, read a paper with this title, in which he entered a plea for more frequent and earlier colotomy in painful malignant diseases of the rectum. Dr. Straus stated his reasons for making colotomy as follows: 1. It is the greatest modern surgical relief measure, inasmuch as it completely does away with the function of the rectum, thereby relieving the intense pain caused by defecation. Pain is an inevitable result in advanced malignant disease of the rectum. There are few exceptional cases, which only prove the rule. 2. The lease of life is extended. There are many instances where it has been considerably extended. So great authorities as Cripps, Allingham, and Eiselsberg claim to have extended the lease for weeks or months. Are not these most cogent reasons for making a colotomy? 3. The risk of the operation has been minimized. Allingham has made sixty-eight colotomies with only two deaths, and they were total obstruction cases. Cripps, forty-five, with one death; this was a total obstruction case. Edwards has made sixteen, with one death. The patient was very septic at the time of operation. Reeves has made sixty-five operations without a death. Goodsall has made twenty-two without a death. Statistics show a death rate of less than two per cent. By making early colotomy the author believes that the death-rate might be reduced to less than one per cent.

Kraske's Operation, with Report of Cases, by Dr. H. O. Walker, of Detroit, Mich. The author of this paper said that a man or woman who had cancer of the rectum was of few days, and the method of relief could be done in three ways, either by proctotomy and scooping away of the growth, by excision of the cancer, or by colotomy, all of which were temporary, as the author had never seen a case of true cancer that ever got well. When the malignant growth was high up, say two or three inches above the rectum, the best operation to make would be by Kraske's method, that is, by making an incision down through the second sacral vertebra to the anus, to the left of the coccyx, and rapidly stripping off the muscular and ligamentous attachments to the coccyx and cutting them away with the bone forceps, and as much of the sacrum as is necessary to expose the growth. Then we have a full view for enucleating the growth and excising it. It is well known that it is a difficult matter to approximate the ends by suture method, and an idea was forced upon Dr. Walker, from his knowledge of the Murphy button, that with a large button, say two inches in diameter, which he exhibited to the Association, he could approximate the cut ends of the rectum and by this means prevent the infiltration of fecal matter, which by the other method was an impossibility. In this connection Dr. Walker said he had made the first end-to-end approximation by the Murphy button in a case of fecal fistula, on December 8th, and the patient on whom he had operated made a good recovery and within two weeks the patient was as well as ever, with no evidence of any contraction of the intestine.

Some Heresies Regarding Prostatic Pathology.—This paper was contributed by Dr. G. Frank Lydston, of Chicago. The author said that among the many ills which were marked *noli me tangere* until recent years, and which modern surgery has done much to relieve, prostatic hypertrophy occupies a very prominent position. The surgical resources at present at our command were then briefly stated. The author is becoming daily more firmly convinced that the ideal operation is a combined supra-pubic and perineal section performed at an early period. He believes that in many cases this early operation will not only forestall circumscribed prostatic obstructions, median or lateral, but will prove directly curative by restoring the normal function of micturition. Supra-pubic cystotomy is undoubtedly the best method of draining the bladder, as far as a single operation is concerned, and in many instances it is all-sufficient. When combined, however, with perineal section, prostatic dilatation, and prolonged drainage by a large tube, we often do away with certain conditions which exist in the way of contracted lumen of the prostatic urethra and hyper-excitability of this portion of the urinary tract, which supra-pubic cystotomy alone might not accomplish.

Dr. Lydston believes that the main factors in the etiology of prostatic disease are laid down in many cases, if not the majority, before middle life.

Inguinal Hernia, its Anatomy, and Better Methods for Cure.—The surgical address before the general session was given by Dr. Henry O. Marcy, of Boston, the subject named having been selected by a request. Dr. Marcy illustrated his lecture by a series of slides reproducing the magnificent illustrated work of the old masters—Kamper, Cooper, Scarpi, Bougerey, and others. By general consensus of opinion the profession is indebted to Dr. Marcy as an innovator in this field of labor. He has established the value of the buried animal suture, and published his results quite five years before those of Weith, of Germany, to whom in Europe the credit is generally attributed. The essential principles of his operation for hernia have become universally accepted. The result of the work of a large number of the modern operators gives from seventy to ninety per cent. of permanent cures. In *résumé* Dr. Marcy claims that the peritoneal sac, as a rule, should be resected after suturing quite to its very base; that the deeper structures which go to make up the posterior wall of the inguinal canal should be reinforced and restored to their original normal condition; that the external wound should be closed without drainage and the skin wound sealed with iodoform collodion. In his large experience, involving several hundred cases, he states that where the intestine has not been involved from strangulation or other cause, not one of his patients has appeared to approach the danger-line, and that of the entire number which he has been able to trace, more than ninety per cent. have remained after one year permanently cured.

Papers were also read before this Section by Drs. William N. Wishard, of Indianapolis; J. McLean Moulder, of Kokoma, Ind.; William T. Belfield, of Chicago, and others.

Election of Officers.—The following officers were elected for the ensuing year: *President*, Dr. X. C. Scott, of Cleveland, O.; *First Vice-President*, Dr. Leon Straus, of St. Louis; *Second Vice-President*, Dr. G. Frank Lydston, of Chicago; *Secretary*, Dr. Frederick C. Woodburn, of Indianapolis; *Treasurer*, Dr. George J. Cook, of Indianapolis.

Hot Springs, Ark., was selected as the next place of meeting.

After drafting and adopting resolutions of thanks, the Association adjourned.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

MEDICO CHIRURGICAL SOCIETY—MULTIPLE JOINT DISEASE—MEDICAL SOCIETY OF LONDON—GRAVES'S DISEASE—GYNECOLOGICAL SOCIETY—REMOVAL OF UTERUS BY CAUSTICS—HARVEIAN ORATION AT THE ROYAL COLLEGE OF PHYSICIANS—ILLNESS OF SIR ANDREW CLARK.

London, October 28, 1893.

On Tuesday last, 24th inst., the Medical and Chirurgical Society began its sittings. After a resolution of sympathy with the family of Sir Andrew Clark on his serious illness, the Marshall Hall prize was formally presented to Dr. Gowers, who expressed his extreme satisfaction at receiving this honor. A paper was then read by Mr. Bowlby on a case of multiple joint disease in a lad of thirteen, probably due to hereditary syphilis, in which death resulted from amyloid disease of the viscera. The post-mortem showed gummatous masses on the calvaria, old cicatrices of the pharynx and disease of both elbows, both knees, the right shoulder, both tibiæ, and both humeri. It was suggested that in chronic arthritis in children with congenital syphilis, such lesions of joints may be of the same type. Mr. J. Hutchinson, Jr., said the microscopical examination excluded tubercle, and the evidence of chondritis with fibrillation of cartilage showed it to be specific, according to Virchow, who had described similar cases. Moreover, the presence of a subsynovial gumma proved it. He said that symmetrical synovitis following interstitial keratitis, usually cleared up under treatment.

Mr. Shield said most surgeons met with somewhat similar cases, and absence of corneal changes would not suffice to exclude syphilis. The demarcation between tubercle and syphilis was obscure, and perhaps the two processes might be mixed. Lupus attacking congenital syphilitics was very severe.

The subject of Graves's disease occupied the attention of the Medical Society of London at its first meeting for the session. A paper was first read by Mr. A. Maude on some of the less known factors in this interesting disease, and a discussion followed in which various suggestions were made. Mr. Maude insisted that enlargement of the thyroid body was constant, though occasionally it might be slight or transitory. His statistics opposed a common notion, that it is not often seen in goitrous subjects, for he had found 12 cases out of 55 of enlarged thyroid collected in a population of about three thousand. Out of 7 cases detailed, one was the child of a myxœdematous mother, and the connection between these two diseases seems now fairly established. The results of excision of the thyroid, of which he had collected 20 cases last year, pointed in the same direction. The psychoses observed in addition to the usual irritability of temper were: *a*, oversensitiveness as to duty slightly removed from religious melancholy, with delusions of sin; *b*, incoherence of ideas, ambulatory epilepsy, vertigo, tinnitus. The very frequent, almost universal, symptom of tremor was most marked in the flexors of the arms, the interossei escaping. This tremor exactly resembled that caused in animals after removal of the thyroid, and was much more uniform than that of hysterical tremor, for which it might be mistaken. Mr. Maude reviewed the bulbar symptoms, said that many nerve symptoms pointed to peripheral neuritis, and suggested that the disease was due to a toxic substance acting chiefly on the medulla, and probably proceeding from the thyroid. In the discussion Dr. Hall said some cases had been improved after intra nasal operations, and thought this might very well be the case if the disease arose in the sympathetic. Dr. Savage held there was no connection between goitre and Graves's disease, for he had not met with one case of the latter in 1,000 cases of the former which he had collected. Dr. Pasteur said the exophthalmic cases were rare in Switzerland. Dr. Murray insisted on the oppositeness of Graves's disease and myxœdema, and suggested that the former may be due to excessive activity of the thyroid, and the latter to deficiency of the secretion. He pointed out that when too large doses of thyroid extract are administered it gives rise to accelerated pulse, moist skin, tremor of the hands, and muscular wasting, just as in Graves's disease. Dr. Ord had seen rapid reduction of the thyroid in this disease followed by myxœdema, and assumed greater vascularity of the gland at first had been followed by atrophy or destruction of the secreting structure. Other speakers said thyroid extract had not, in their experience, aggravated the symptoms, that there was often spontaneous amelioration of the disease which extended over long periods, and that the sympathetic theory was not yet dead and buried. Some microscopical sections were exhibited by Mr. Berry, to illustrate the appearances met with in the two diseases.

Removal of the uterus by caustics was the subject brought forward at the first meeting of the Gynecological Society, when the President, Mr. B. Jessett, showed three specimens. He had employed zinc chloride on cotton wool after removing the diseased tissues as far as possible by his dredger, protecting the vagina by tampons of sodium carbonate. Great necrosis had occurred in one case, a portion of the rectal wall having sloughed with the uterus, and the fæces therefore passing per vaginam. Still no other bad effect followed, and pain and discharge ceased, so that the patient, like the other two, lived longer with less suffering. Of course he would not run the risks of this plan when hysterectomy was possible. In the discussion various questions were raised as whether the whole uterine peritoneum had come away, whether the pelvic vessels were endangered, or must we run the risks of a happy-go-lucky procedure, the strength of the chloride to employ so as to avoid the extensive sloughing that occurred in these cases. Mr. Jessett had treated some 20 cases previously, but had not seen such complete necrosis before. The pathologist of the Cancer Hospital reported that one of the cases was epithelioma, the other two scirrhus. Dr. Routh said that any caustic would do. He had himself used sea-tangle tents dipped in bromine diluted 1 to 5. He could also recommend acid nitrate of mercury. In 1848 he saw Dr. Hugnier, of Paris, employ caustics. Dr. Bantock had used caustics in a few cases, but it was not very easy to regulate their action, and when such sloughing occurred as in the specimens, danger to the intestines and other structures was great. Dr. H. Smith had also used this method, which was first employed by Marion Sims.

According to custom on St. Luke's day (October 18th), the Harveian oration was delivered at the Royal College of Physicians. This oration has, for many years, been devoted to the honor of Harvey. It was founded and endowed by him—not for that purpose, but in commemoration of all benefactors of the college, and the lecturer was directed to add "an exhortation to others to follow their example and to search out the secrets of nature by way of experiment, and for the honor of the profession to live in mutual love and affection." But Harvey's name has overshadowed other benefactors and explorers, and the oration has continued to be in commemoration of him. Dr. Pye-Smith was the selected orator this year, and followed the tradition. It is not easy to say, under such circumstances, what has not been as well said many times before. After discussing the discovery of the circulation and the treatise on generation, Dr. Smith referred to a third phase of Harvey's intellectual work, of which the records have perished, but of which he found some indications in his writings. He held that Harvey contributed, or would have done, but for the adverse fate which destroyed or dispersed his MSS. when he was with the king at Oxford, a systematic study of morbid anatomy. In one passage at least, Harvey speaks of the benefit that would ensue from the regular observation of the structural changes produced by disease. This was then a novel notion. Though bodies were opened for

embalming and other reasons at that date, there was no systematic observations of the organs after death for some one hundred and fifty years afterward. But Harvey recommended the study and had himself recorded many autopsies that he had made. Had these reports been preserved, the study of morbid anatomy would have, no doubt, begun a century and a half earlier, and the orator pointed out some of the might-have-beens suggested by this fact. In his exhortations, Dr. Smith denounced the anti-vivisectionists, and defended the profession from the unjust charges of cruelty and the reckless falsehoods propagated by ignorant sentimentalists, and expressed "a hope that those who administered our laws will take heart of grace, and in this, as in other matters, try whether Englishmen do not prefer the conscientious maintenance of a statesman's own judgment before a time-serving subservience to ignorant clamor."

Sir Andrew Clark is seriously ill, and the gravest apprehensions are entertained by his numerous friends. As one of these, I was shocked when I heard on Thursday afternoon (the 19th inst.) that he had been seized with paralysis during his morning work, and was for some time insensible in his study. So much consternation prevailed at the house that somewhat contradictory reports were given to callers. Eventually, however, it was made known that the attack was one of right hemiplegia with aphasia. He partially recovered consciousness and has improved as to this condition, but the paralysis of both arm and leg is complete and speech is still very disordered, although with an effort he can make himself understood. This attack was unexpected, he was at his work as usual when seized. On the previous day he was at the College of Physicians at the Harveian oration mentioned above, but was late in arriving and seemed to have mistaken the hour. This must have been an annoyance to him, for when I was chatting with him some time ago he expressed his great satisfaction to me that he had never missed a meeting since he had been President, and, moreover, had never been late. He told me, too, that he would not hold the presidency except with the determination to sacrifice all practice which could interfere with the fullest discharge of its duties.

THE NEED OF A NATIONAL BOARD OF HEALTH.

To the Editor of the Medical Record.

Sir: I notice in your issue of September 30th, a communication from a gentleman who is of opinion that there is no necessity for a National Bureau of Health, and says that the different State Boards of Health can answer the purpose. There are several objections to that theory. First, the gentleman seems not to be aware of the fact that some States of the Union have no Health Board. Secondly, many of the States have a Health Board only in name; and in others the Board of Health simply offers positions for political wire-pullers. Thirdly, in some States the Commissioner of Health takes a real interest in medicine and sanitary science, and wants to do something for the public health, but for some reason or other his hands are tied and he can go so far and no further.

Modern scientific investigations have shown that there are such things as contagious diseases, due to bacilli, and that these bacilli can travel from one person to another, and from one place or country to another; and it seems to me that in view of these facts the matter of public health becomes not only a national question but also an international one. The question of public health is one of national consideration, and calls for international co-operation. State lines are not respected by epidemic intruders, and State Boards of Health have no jurisdiction outside of their State limits. If a body of competent, independent, non-partisan medical men were to be appointed by the Federal Government, and invested with independent executive authority in matters pertaining to the public health, the members to be well paid, and to devote their entire time and attention to the administration of sanitary laws, we should find things quite different and greatly improved. If, for example, an important question is brought up that is universal in its application, only a national Board of Health could properly deal with it. At the Pan-American Medical Congress held in Washington, September 7, 1893, in the Section of Hygiene, Climatology, and Dermography, it was resolved that tuberculosis causes more deaths than any other disease, and that it is known to be communicable, especially to persons living in houses and shops with consumptives. Now if such an important question as that were to be taken up and properly considered by a National Board of Health having authority to deal with it, the preventive measures could be at once put in working order, and something practicable would be done.

Another example is found in the news columns of the public press a few days ago, where it is announced that two Italian steamers, the Carlo R. and the Remo, arrived at Santos from the Mediterranean with cholera and were not allowed to land; the passengers were obliged to re-cross the Atlantic, and during the homeward passage the pestilence became more virulent, and one hundred and fifteen passengers of the Carlo R., and sixty-four of the passengers and crew of the Remo, perished of the disease. These examples show the need of an international quarantine system, as well as the somewhat selfish measures of individual nations for their own protection. The sending back of these ships was not at all in the line of sanitation or stamping out the plague, but, on the contrary, tended to increase it and sacrifice lives that might have been saved.

There are certain infectious diseases that only originate in some Eastern lands, but diseases are portable, and are frequently conveyed from their original habitat to other parts of the world, where, if they find favorable conditions for propagation, they develop and spread. The infectious germs of cholera are produced in India, and from there they have been carried to almost every part of the globe. If proper sanitary regulations were to be adopted by the various maritime nations the scourge of cholera would be stamped out in its breeding-place and would soon become a thing of the past. It seems to me that every intelligent physician who is familiar with sanitary science and knows what sanitation has done and might do to improve the health of the people, will range himself on the side of a National Board of Health, and do what he can to secure the passage of the bill in the United States Senate.

Leonard Landes, M.D.

976 Lexington Avenue.

IS MEMBRANOUS CROUP CONTAGIOUS?

To the Editor of the Medical Record.

Sir: The accompanying report by the Chief Inspector of the Division of Pathology, Bacteriology, and Disinfection of this Department is of very great interest to the medical profession and of great importance to the community. The Board of Health requests the co-operation of the physicians of this city, in order to definitely establish or refute the contagiousness of so called membranous croup. The fact that in a large majority of the cases of membranous croup (not apparently involving the pharynx) examined bacteriologically by the officers of this Department, swabs infected with the pharyngeal secretions were shown to contain the Loeffler bacillus, tends to the conclusion that membranous croup is laryngeal diphtheria, and that, as is shown in the report, it is liable to cause cases of like character, or of diphtheria of the ordinary type. Before declaring the disease to be contagious and classing it among the transmissible diseases which must, under the law, be reported to the Board of Health, the Board desires to have the results of the bacteriological investigation of a large number of cases tabulated in order

to base its action on irrefutable premises. The only way that this can be done is through the voluntary report to this Department by physicians of cases of membranous croup that may occur in their practice, with request for a bacteriological examination.

Therefore the Board respectfully requests physicians to report cases of membranous croup under that name, in the same manner that they report cases of contagious disease. The data already obtained is sufficiently convincing to cause this request to the profession, to treat membranous croup as a contagious disease; that is, to advise isolation and disinfection the same as in a case of diphtheria.

CYRUS EDSON, M.D.,
Commissioner, and Chairman of the Sanitary Committee of the Board of Health of New York City.

HEALTH DEPARTMENT, No. 301 MOTT STREET,
NEW YORK, November 3, 1893.

HON. CHARLES G. WILSON, *President.*

SIR: In compliance with your request I have the honor to submit the following report of the results of the bacteriological examinations made in cases of so-called membranous croup. These are cases from which cultures have been referred to this Department for examination because of the suspicion that they were of a diphtheritic nature.

During the last four months bacteriological examinations have been made in thirty-six cases of this kind. In all of these the membrane was either confined entirely to the larynx, or at most only slight deposits existed in the throat, while there was very extensive exudation in the larynx. In thirty of the cases the Loeffler bacillus of diphtheria was abundantly present. These cases therefore were really cases of laryngeal diphtheria. In six cases no Loeffler bacilli were found; these were therefore cases of catarrhal pseudo-diphtheritic inflammation of the larynx, and are to be considered analogous to similar pseudo membranous inflammations (non-diphtheritic) in the pharynx.

In five of the laryngeal cases in which the Loeffler bacillus was found, cases of pharyngeal diphtheria both preceded and followed within a week in the immediate vicinity. In three other instances the cases of croup were preceded by cases of true diphtheria, and in seven instances were followed by cases of true diphtheria. In the remaining fifteen cases of membranous croup pharyngeal diphtheria neither preceded nor followed in the immediate vicinity. None of the six cases of croup in which no Loeffler bacilli were found were followed or preceded by cases of diphtheria.

During the last four months, therefore, nearly eighty-four per cent. of the cases of so-called membranous croup referred to this Department for bacteriological examination have proved to be diphtheria.

(Signed) Respectfully,
HERMAN M. BIGGS.
Chief Inspector.

HEALTH DEPARTMENT, 301 MOTT STREET,
NEW YORK, November 1, 1893.

Congenital Absence of Nails.—Dr. Eichhorst reports the case of a man, twenty-six years of age, who had no nails on either fingers or toes. The nail bed and fold were well formed, and the former presented a shiny surface, giving the appearance of a very thin nail. Close examination showed, however, that there was not the slightest trace of a nail, the skin of this part being softer and more delicate even than the surrounding integument. Sensation was also as acute here as on the palmar surface of the fingers.—*Centralblatt für klinische Medicin.*

No Change.—BRIGGS: You say your doctor sends you a bill twice a year?
GRIGGS: Yes.
BRIGGS: What does he do that for?
GRIGGS: It's the same bill.—*Judge.*

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending November 4, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	25	9
Scarlet fever	59	3
Cerebro-spinal meningitis	4	8
Measles	135	8
Diphtheria	143	49
Small-pox	14	0
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

A Suggestion Regarding Improved Hip-splint.—Dr. F. Overholt, of Omaha, Neb., writes: "I have the MEDICAL RECORD of October 28th, the foremost article in which is one on hip-joint disease by Dr. Judson, which calls to mind the numerous hip-splints devised. It has often occurred to me that some one ought to devise a hip splint employing the idea in a bicycle saddle to obtain support and extension from the tuber ischii instead of with a perineal band. Having worn a hip-splint for a year or two some years ago, I may be said to be conversant with the disadvantages of the perineal band. I merely offer this as a suggestion, having done no experimenting, and, being in other work, have no opportunity to do so."

English Diplomas and Practice Abroad.—Further communications have been received from the Foreign Office, through the Privy Council Office, in reference to the question of reciprocity of practice for English medical men in foreign countries. Reference was made to communications received from the Governments of France, Italy, Germany, and Switzerland. It will be remembered that the restrictions on the practice of foreign medical men in France, though objectionable, were not very oppressive; in Italy there is virtually no restriction; and for practising the healing art in Germany no special official permission is required, but any one wishing to practise as a doctor or to be recognized or intrusted with official duties must receive a certificate which can be granted only after an examination. In regard to Switzerland the Federal Government are quite willing to grant all facilities to foreign practitioners, but the Medical Board, which has a decisive voice in such matters, remains firm in its opposition to any idea of reciprocal arrangements with this country. Thus this small community evinces a most illiberal spirit toward those medical colleagues who have made the health-resorts of their country of such importance as they possess, and shows an indifference to the welfare of the sick such as might be secured by medical men of their own country, forgetful that the pursuit of the healing art should know nothing of territorial boundaries or restrictions provided that due protection was afforded against ignorance and incompetence. Further communications on the same subject have been received through the Privy Council since the last session of the Council and will be laid before the members. It would appear that in Sweden the Chancellor of the University of Stockholm has already power to grant, in case of licensed practitioners, a certain reduction of the time required to obtain a qualification to practise. In Norway the Government can authorize individual foreign medical men to practise in practically the same manner in which the British law permits foreigners to practise in the United Kingdom. In Portugal measures of a provisional, incidental, and limited nature have been adopted, which are in accordance with the

privileges granted to foreign practitioners in the United Kingdom. In Denmark nothing can be done which would differentiate British from other foreign practitioners. It will thus be seen that great facilities, almost amounting to reciprocity, are afforded in many European countries, but that lesser facilities are afforded by France and Switzerland, especially the latter, where some of the chief health-resorts are situated. The special action of the Swiss Medical Board will no doubt tend to the establishment of health-resorts of equal value in other situations, where the sick will not be deprived of that valued medical assistance on which they can rely. Such resorts are to be found in Italy, Egypt, the Cape, California, Madeira, the Canary Islands, Australasia, New Zealand, and at home. Some of the places named, though distant, can be reached by sea voyages, which in themselves contribute so largely to the restoration of health.—*The Lancet.*

Treatment of Suppurating Buboes.—Dr. Otis gives an account, in the *Journal of Cutaneous and Genito urinary Diseases*, May, 1893, of his treatment of suppurating buboes. The skin around the affected part is first rendered aseptic by scrubbing with soap and washing with sulphuric ether, and then bichloride of mercury solution, 1 in 1,000. A narrow bistoury is next inserted into the suppurating part and the contents well squeezed out. The cavity is now irrigated with a solution of mercuric chloride, 1 in 1,000, and immediately filled to moderate distention with warm iodoform ointment (ten per cent.), introduced by means of an ordinary conical-pointed glass syringe. Care must be taken not to apply heat sufficient to liberate free iodine. On withdrawing the syringe from the wound, a cold compress, wet with bichloride solution, is applied, which solidifies the ointment at the orifice. A large compress of bichloride gauze is then applied and held in position by a spica bandage. Sixteen cases were treated in this way, and of these, 9 were cured in six days, 3 in twelve days, 1 in fourteen days, 1 in twenty-three days, and 2 ceased attending during treatment. Otis claims for this procedure, 1, that it is simple and safe; 2, in suitable cases cure as a rule seems to be more rapid than by any other method; 3, the patient is not prevented from going about during treatment; 4, the first gland being rendered thoroughly aseptic, other glands in the chain are less liable to become infected; 5, no scar is left; and 6, it does not interfere with the performance of any subsequent surgical procedure which may be requisite.

Fantastic Therapeutics.—The fantastic character of recent therapeutic suggestions will, it is feared, cause a revulsion of feeling in favor of therapeutic nihilism. The science of therapeutics is particularly subject to the fluctuations imposed upon it by the idealism of its votaries. But, as Sir Thomas Browne somewhere observes, "every poison contains its own antidote," and the excesses practised by the insistent therapeutist engender a corresponding scepticism and mistrust, which ultimately save this much-abused science from the oblivion of ridiculousness. These two traits, this confidence of the believer and the incredulity of the doubter, are admirably exemplified at the present time. On the one hand, it is found that the ideas which have resulted in the concoction of microbic and animal-extract panaceas for every ailment have devastated the reason of the therapeutist. The very reasonable hypothesis that the various glands supply an internal secretion to the blood necessary to its maintenance as a vitalizing medium has been twisted into the baseless fabric of a vision of every organ secreting or manufacturing specific nutritional substances. In harmony with this conception, a system of therapeutics is suggested which smacks of sixteenth-century enlightenment; in which extracts of various organs are administered for diseases of homologous parts. On the other hand, we find a distinguished German observer carrying his nihilism to the extreme of contending that all the results of electro-therapeutics are those of suggestion. Between so much faith and so little, where do we stand? Shall we next hear that opium relieves pain and chloroform produces anæsthesia by suggestion? or shall we learn that zygomaticin is extremely beneficial in melancholia? One of the potent causes of this therapeutic befuddlement doubtless arises from the proprietary interest in remedies. The profession is perpetually deluded by those who claim to enlighten it by carefully prepared information of an unreliable kind, regarding the physiologic and clinical action of remedies. This makes it more and more incumbent upon the intelligent physician to limit his prescriptions to the actual materia medica, of which he possesses definite and reliable information. It would be sad to think that nothing should result from this outrageous idealism in therapeutics. If it be that "the end of dreams is to break them," let them be broken rudely, provided this restore us to a fair degree of therapeutic sanity.—*The Physician and Surgeon.*

Kleptomania in the Consulting-room.—A correspondent of *The Lancet* gives the following account of a recent incident: "Sicily, the classic haunt of brigandage, seems ambitious of showing that highway robbery does not quite exhaust her methods of breaking the eighth commandmant. Some days ago, in Palermo, a well-dressed, pleasant-mannered young man was ushered into the presence of one of the leading alienists and proceeded, on painfully matter-of-fact lines, to state the object of his visit. His dear wife had during the few months since their marriage developed the most distressing, most incorrigible, habit of kleptomania. Not only in public shops and in private visits, but even in her own house, she could not keep her hands off other people's property, which, however, on coming to her real self some hours afterward, she invariably returned to their owners. Medical treatment had hitherto failed to wean her from the habit, and in his despair he bethought him of the Palermitan expert, whose success in such cases had come to his knowledge. The consultant, having put a few questions, which were intelligently answered, expressed his willingness to take the young lady in hand, and appointed an hour on the following day when her husband was to bring her to him. True to time the pair arrived, and the lady had hardly been introduced to the consultant when her beauty and frank, engaging manner imparted a quite peculiar interest to her case. During the interview she conducted herself like a high-bred woman of the world, except for the unfortunate failing she labored under—pocketing articles of value when she thought she was unobserved. Among these the vigilant eye of the consultant missed a photograph framed in brilliants (the gift of a patrician patient) and also a beautifully modelled statuette of pure gold. He also remarked that just at the moment of bidding him good-day she relieved him in the quickest and most graceful manner possible of a valuable cravat-pin which became 'secreted about her person' with the suddenness of magic. 'You see yourself,' groaned the afflicted husband in an aside to the consultant, 'how possessed she is with the thieving instinct. Oh! my poor, unfortunate wife! I will bring you back all the missing articles tomorrow at any hour you may appoint, when you will kindly give me your opinion of the case and advise me what to do.' To-morrow came and with it the appointed hour, and the consultant waited, and is still waiting, for the 'well-dressed, pleasant-mannered young man' and his stolen goods. He was as cleverly swindled as Gil Blas was by Don Raphael and Camilla, 'niece of the Governor of the Spanish colonies in the Philippine Islands.'"

The Chess Memory.—M. Alfred Binet has published a study of chess memory, founded mainly on communications made to him in reply to a set of questions by many of the most eminent living blindfold chess-players, supplemented in some instances by actual observations made in the psychological laboratory of the Sorbonne. He comes to the conclusion that the player relies mainly on visual memory, but partly also on verbal memory; the

more accomplished the player, the less distinct is the mental picture of the board and the pieces. Such a picture appears to be formed by all, but the verbal memory seems to be of little importance, and, as a matter of fact, the players rely less upon a mental picture or echo than upon a recollection of the relative position of the pieces which are recalled, not as possessing a particular form or a particular name, but as being endowed with certain powers. This is confirmed by the experience of several players, who state that when engaged in playing several games at once they distinguish between them by recollecting the character of the opening. When called upon to move in a particular game the act of memory is described by Dr. Tarrasch, the German champion, who is a medical man, somewhat as follows: He is told that in game number so-and-so his adversary has moved, and the nature of the move. At first his mind is chaos, the one fact which stands out being the nature of his adversary's move. Then he recalls the whole game, the first fact being the nature of the opening. "Ah," he says to himself, "that is the knight's gambit in which the opponent defended according to custom until such-and-such a move;" then he runs over each move that has been made until he comes to the last move just announced to him, which then fits into its place; then he has a dim image of the board with the pieces in their proper places. How far this process is a matter of verbal memory is not very clear. It is really the recalling of a series of incidents linked together by a chain of reasoning, and M. Binet adds the interesting fact that the blindfold player is very apt to forget, or to have difficulty in recalling, isolated or purposeless moves of his adversary. A good player will remember every move in an interesting game for a long time—months or years. Mr. Paul Morphy, for instance, on one occasion dictated from memory—not as a feat but in order that they might be published—eight or ten games that he had played eight months earlier. A blindfold player must have a good memory, but it is a very different sort of memory from that of the calculator Inaudi, who can recall long strings of unconnected numbers which he has heard recently. His memory is, however, short. M. Binet found on trial that Inaudi could recall three hundred numbers; these had all been heard within the two previous days. Numbers heard earlier had been entirely forgotten. The difference in retentiveness is, no doubt, due to the fact that in Inaudi's case there was no connecting link to bind the series of figures together, whereas the chess player's memory is not a memory of mere sensations, but of ideas.—*The British Medical Journal.*

The Influence of State Boards of Medical Examiners on Medical Teaching.—A physician writes: "A few years ago, when I studied medicine in one of the metropolitan schools, the course was two years—winter session, of not more than five months; spring session, of three months, for those who might wish to attend, and the number was usually small. Students were expected to be present at all the lectures, but often were not. Each professor was supposed to 'quiz,' for about an hour each week, on the lectures which he had delivered that week, but attendance was not compulsory, and few joined the class. The final examination was wholly verbal, and seldom a dozen questions were asked by each professor. Yet I never heard a student complain of this system. How different at present, and presumably because, in large part at least, of legislative enactments providing for State boards of medical examiners. My brother, who is attending the same medical school, will have to go at least three years. The winter course is two or three months longer than formerly. Students are ranged in classes, there being about three classes, of thirty or more, in each department—chemistry, physiology, materia medica, etc. An adjunct professor in each department 'quizzes' his classes once, or oftener, a week for an hour, and assigns them so many pages in the text-book for the next recitation, just as is done in the public schools. A percentage of ten, or perfect, is credited to those who recite without an error, and absentees are given zero. This percentage counts on the final examination. The latter is largely written. Class instruction extends also to laboratory work and clinical study at the bedside. Of course didactic lectures take place as formerly. The whole course is planned and carried out apparently with an appreciation of the fact on the part of the faculty that each graduate, before he can enter upon practice, will be examined by a State board which will show no mercy, and failure before such board will reflect discredit upon the institution granting the diploma."

The Weight of the Two Sides of the Brain.—Professor Braune, of Leipsic, has recently published the results of weighing the halves of 100 human brains. These were divided in the median line, and the cerebellum, with the medulla and pons, were cut off and bisected. The weights of the two sides of the whole encephalon were compared, as well as that of the cerebral hemispheres, and the halves of the cerebellum with the medulla and pons. It has generally been taught that the left half of the brain is heavier than the right, and that this is a physical cause of right-handedness. The results of Professor Braune's investigations do not seem to bear this out. He found the left side of the entire brain heavier in 52 cases, and the right in 47 cases, the two sides being equal in one case. And he also found that if the excess of weights of the two sides be added up, the right side showed a preponderance, the difference between the two sides being in most cases so slight as not to deserve any consideration. In five cases in which the right side considerably out-weighed the left, the bodies were examined for signs of left-handedness, but none were found. The left cerebral hemisphere was the heavier in 54, the right in 37 cases; while the left side of the cerebellum was the heavier in 54 and the right in 33 cases. Thus he found that the cerebral hemisphere of one side is the larger about as often as the cerebellum of the other; but the larger halves are on the same side about twice as often as on different sides.—*Boston Medical and Surgical Journal.*

Conception during the Puerperal Period.—Dr. Brasseur relates the case of a woman, twenty-two years of age, who was delivered on July 4, 1892, of her first child, July 8th she practised coitus, and was again delivered March 10, 1893, of a healthy child. Calculating from the date of coitus, the second pregnancy lasted two hundred and forty three days, that is, twenty-seven days less than the normal. This case has caused considerable discussion. Ovulation must have existed in the woman on the fourth day after the delivery, and it was necessarily quite independent of menstruation. Dr. Koenig, who actually observed the case, draws from it the following deductions: 1. A gestation period of two hundred and forty-three days after a fecundating coitus may produce a viable child. 2. The spermatozoa can live in the lochial secretions. 3. The functional activity of the ovaries is not completely suspended during pregnancy. The Graafian follicles so open that they may burst a very short time after delivery. 4. Ovulation and menstruation may occur independently of each other. 5. Among vigorous women, during the period immediately following confinement the uterine mucous membrane may undergo a rapid regeneration which renders possible the implantation of a fecundated ovule immediately after delivery.—*Gazette Médicale de Liège.*

Sore Nipples.—

℞. Ichthyol	Drachm	1
Lanoline	"	1½
Glycerine	"	1½
Olive oil	"	2½

Wash off before nursing.

Notification of Tuberculosis. — The Philadelphia County Medical Society has appealed to the Board of Health, of Philadelphia, to place tuberculosis upon the list of contagious diseases to be reported to the Board.

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THE TREATMENT OF ENTERIC FEVER.[1]

BY GUSTAVUS ELIOT, A.M., M.D.,

NEW HAVEN, CONN.

THE great mortality and wide prevalence of enteric or typhoid fever justify frequent discussion of its treatment. It is an important duty of the medical profession to try to discover such principles and methods of treatment as will diminish the severity and fatality of the disease, and to promote their dissemination.

I shall not attempt to bring forward any therapeutic novelties. Every remedial measure of which I shall speak was proposed and tried long ago. It is the modest purpose of this paper simply to discuss those principles and methods of treatment which are in more or less common use, and to point out those whose value has been most thoroughly established and which seem worthy of general adoption.

The first requisite in the successful treatment of enteric fever is rest. As soon as the physician begins to suspect that his patient has this disease it is his duty to insist that the sick person should at once go to bed, and should remain there, in the recumbent position, until all doubt in regard to the nature of the disease has been dissipated, or until the patient has entirely recovered. Everyone, unless he is a fool, knows that, you are saying to yourselves. Let me remind you that a little less than nine years ago Frederic Mahomed, one of the assistant physicians of Guy's Hospital, London, died at thirty-five years of age, of enteric fever, and that a few days before his death, while his temperature was 104° F., he left his residence and went to the hospital to see a student ill with rheumatic fever. Certainly this brilliant young Londoner ought to have known, even so long as nine years ago, the importance of rest in the treatment of enteric fever. Let us hear from his own lips the reason why he disregarded this fundamental rule. It was addressed to his wife: "Would you have me stay at home for a bilious attack when the life of another is in danger?" These words of a young man of extraordinary promise may serve to emphasize a point of the very greatest importance in this connection. It is the necessity of making an early diagnosis, if one wishes to treat enteric fever with the best results. If the brilliant young assistant physician of Guy's Hospital had realized that he had this disease he undoubtedly would have remained in bed, and very likely would have recovered, to continue his investigations in cardiac and renal pathology.

Many reputable physicians have, at some time in their experience, been guilty of this same carelessness in diagnosis, and have allowed patients, whom later developments showed to be suffering from enteric fever, to remain out of bed, or even to continue about their business. And this was permitted, not because the physician did not know that patients with enteric fever must be kept in bed, but because at first he failed to recognize the real nature of the disease. The best results in the treatment of this disease will never be obtained until the time comes when no physician allows a patient who has any elevation of temperature to remain out of bed, until he has positively and absolutely excluded the possibility that the patient has enteric fever. Every physician ought always to assure himself that his patient has no fever before he ventures to prescribe; and ought always to assure himself that a patient with any elevation of temperature has not enteric fever before he permits him to remain out of bed. The general observance of these simple rules would greatly diminish the mortality from enteric fever.

Immediate rest in bed is entirely inconsistent with a journey by rail, by boat, or by coach. It frequently happens that the victim of enteric fever is taken ill at a distance from home. The first thing such an one wishes to do, when he begins to realize that his illness may prove serious, is to take the first train for home. To travel is one of the most injurious things a man with this disease can do. Probably no one with enteric fever ever took a journey who was not thereby made worse. When these patients refrain from travelling fewer of them will die.

Rest in bed, furthermore, does not embrace receiving company, transacting business, or conducting correspondence. All must be absolutely forbidden, for either is liable to increase and prolong the fever, or to cause its return, if undertaken too early during convalescence.

The patient must not leave the bed for any purpose whatever. He must not go to the water-closet. He must not get out of bed to urinate or defecate, but must use a bedpan. He must not leave the bed to get a drink, or to unlock a door, or to open a window, or to see if the sky is cloudy, or for any other one of the innumerable things which occur to his mind as necessary and desirable things to do.

This complete rest may be most certainly secured if the patient is early placed in the care of a well-trained and faithful nurse. If the case is a severe one, two nurses may be necessary.

The requisite condition of restfulness will be further promoted by the maintenance of an even and agreeable temperature, of an adequate supply of fresh air, and of a moderate amount of natural light. Occasional sponge-baths, also, frequently contribute greatly to the comfort of the patient. This uninterrupted rest in bed must be maintained until for a week the temperature, both morning and evening, has been below 99° F.

The second point to be considered has reference to diet. This must be such as will necessitate the least possible activity of the organs of digestion and assimilation. Of all food, by far the best in enteric fever is milk. The ordinary duration of the disease is so long that systematic feeding should be continued from the beginning to the end. Milk should be given at regular intervals in sufficient quantity, so that two quarts or more may be taken in twenty-four hours. If intestinal symptoms are severe the milk should be sterilized. If, for any reason, raw milk does not seem to agree with the patient it may be peptonized, or if a mild stimulant is desirable, it may be used in the form of wine-whey. A patient who cannot, or will not, take milk is exceedingly difficult to manage. If it is absolutely impossible to nourish him sufficiently with milk, recourse may be had to gruels and meat soups, broths and extracts. These, however, are less desirable than milk, because they are likely to ferment in the stomach and intestines with the production of gas, and because they tend to cause or to increase diarrhœa.

Liquid diet, preferably of milk, like rest in the recumbent position, must be maintained until, for a week, the temperature, during the entire day, has been below 99° F.

After this period has passed the patient may be allowed

[1] Read at the tenth annual meeting of the New York State Medical Association, in New York City, October 11, 1893.

to sit up for a short, and gradually increasing, time, each day. He may also be given a somewhat greater variety of food, beginning with gruels, soups, and broths, then eggs, a little later meat and bread, and last of all fruits and vegetables. In the meantime the temperature must be carefully watched, and if fever returns, constant rest in bed and a liquid diet must again be enforced.

The general treatment or management of the patient, as already outlined, is applicable to all cases of enteric fever, whether mild or severe, in male or female, in old or young. In fact this plan of treatment may wisely be followed in the management of any patient who has fever, whatever the cause of it may be. With regard to the rules which have been enumerated, there would be practically no difference of opinion among educated and sensible physicians.

Turning now from the hygienic and dietetic rules, which may be denominated the physiological side of the treatment, we pass to the more strictly therapeutical side of the subject. The measures which have been mentioned promote the normal physiological action of the various organs. Those which remain for discussion are employed to produce modifications of the disease process, or of those disorders of function which it has caused.

If one were to attempt to enumerate all the remedies which have been used with alleged benefit in this disease the list would be a wearisome one. On the other hand, some maintain that all drugs are injurious or useless, except as they are used with reference to some special symptom or complication. Osler, the clinical oracle of three great cities, teaches that enteric fever "is not to be treated by medicines." Other writers and teachers make equally discouraging statements. Very many believe that it is impossible to shorten the course of the disease or to diminish its severity by the administration of drugs. I shall venture to present a somewhat more optimistic view of the subject.

What therapeutical measures should be employed in the treatment of enteric fever? I reply: It depends entirely at what stage of the patient's illness you commence to treat him with reference to the fact that he has that disease. You may feel inclined to sneer at this statement and to say that it is puerile. But no one who has had much experience in the practice of medicine, if he looks at the matter without prejudice and in a rational way, can fail to realize that in the case of many a patient who has passed through the course of enteric fever, or has died before he reached the end of the disease, the physician in attendance has confidently and repeatedly asserted that the patient had malarial fever, or bilious fever, or gastric fever, or typho malarial fever, or some other disease, which he did not have. Perhaps before the disease has ended, or has destroyed his patient, he has modified his earlier opinion and has affirmed that the disease has run into enteric fever, or that enteric fever has developed in addition to the earlier condition. Of course a physician who said anything of this kind, and believed it, would not begin to treat his patient for enteric fever very early in the course of the disease. You will, I have no doubt, agree with me that such vacillating diagnosis is generally the fruit of ignorance or carelessness. Intelligent practitioners who are not so profoundly convinced of their own infallibility as to be unwilling to admit that they ever make a mistake in diagnosis, understand and will agree with me that, while enteric fever may commence insidiously, and may at first be difficult to distinguish with absolute certainty from other affections, it nevertheless, as a rule, runs a definite individual course, and is not, except in very exceptional instances, entangled with other inflammatory or febrile disorders, as a complication or sequel.

But it is not always the fault of the physician that he commences the treatment late in the course of the disease. Often the patient does not seek medical advice until the disease has been pursuing its course for days, or even weeks. Often, also, the patient, by choice or necessity, wisely or unwisely, passes from the care of one physician to that of another. To him who first sees the case, at the middle or end of the second week of the disease, very different indications for treatment appear from those which are usually observed at the beginning or middle of the first week.

Assuming that the physician sees the patient early in the course of the disease, and is alert to detect its nature, one of the first questions concerning the medicinal treatment which arises has reference to the use of cathartics.

The time was, fifteen or twenty years ago, when medical teachers almost unanimously condemned the use of cathartics in enteric fever. They protested against their use on the ground that, inasmuch as looseness of the bowels was one of the common symptoms, there was no necessity of causing any increased action of the bowels, and furthermore, that there was danger of increasing the inflammation of the intestinal mucous membrane and of producing hypercatharsis.

For the last ten or fifteen years there has been a tendency to regard one member of this class of remedies with less disfavor. During the last decade calomel has acquired considerable popularity in the treatment of enteric fever. A considerable proportion of practitioners now approve of giving one or more doses of this drug when the patient is seen early in the course of the disease, and when the diagnosis is made promptly. The best way to use calomel in this disease is to direct that the patient shall take from seven and one-half to ten grains of the drug every other day, until four doses have been taken. The earlier this treatment is commenced the more beneficial results will be observed from it. Occasionally it will cause some griping and a large number of loose movements. Under these circumstances it may be necessary to give an opiate to relieve the pain and to counteract the hypercatharsis. But, on the other hand, sometimes a dose of the size mentioned fails to produce any action of the bowels. In that case the patient should be directed to take one drachm of sulphate of magnesia, dissolved in water, every four hours, until the bowels move. If after four doses of calomel have been taken the bowels show a tendency to constipation, and the condition of the patient does not show positive improvement a fifth dose may be given with benefit.

Occasionally signs of commencing salivation are observed. These can generally be relieved by a gargle of chlorate of potash, dissolved in water.

The fact that unpleasant symptoms sometimes attend the use of calomel naturally suggests the criticism that it is wise not to prescribe the drug at all, if it is likely to occasion symptoms to combat which further treatment may be required, in addition to that which is necessary for the disease itself. In reply to this criticism it may be said that unpleasant and undesirable effects are of infrequent occurrence. As a rule these doses of calomel produce a few loose movements, with little or no griping, and very rarely give rise to any signs of salivation. On the contrary, I am able to testify to the positive beneficial effect of this treatment. It is my sincere conviction that used at the beginning of the illness calomel helps to shorten the duration of the disease and to diminish its severity.

The use of calomel in enteric fever is not a new thing. Formerly its employment was very general. The revival of its popularity was brought about, in part at least, by the teachings of Leibermeister, in Germany, and of Bartholow and Wilson, in America. A large number of practitioners now use it to a greater or less extent, and bear testimony to its utility. Some give smaller doses, as from one to five grains. Some give a single dose and others two or three. Others give minute doses, repeated several times during the day. In none of these ways is the same favorable action of the drug obtained as when the large doses of from seven and one-half to ten grains are given every forty-eight hours until four doses have been taken.

It will be difficult to explain positively just how the drug produces a favorable effect upon the disease. It is

certain that, as a rule, it removes a large amount of useless, and perhaps injurious, matter from the intestinal canal, including, in addition to fecal matter, bacteria ptomaïnes and leucomaïnes. It doubtless also relieves to some extent the congestion and inflammation of the intestinal mucous membrane. It very likely, either in its own form or modified chemically during its passage through the alimentary canal, acts as an antiseptic. It perhaps acts indirectly as an antiseptic by stimulating the secretion of the liver, and of the other glands which are concerned with the function of digestion. Possibly it has a sedative action on the entire nervous system. Certain it is that when used in connection with other remedies, which will be mentioned later, it reduces the temperature so that antipyretics are less urgently demanded, and diminishes the frequency and increases the force of the pulse, so that stimulants are less frequently required.

Rarely vomiting is a prominent symptom at the beginning of enteric fever. If present it may interfere with the favorable action of the calomel, or may seem to entirely contraindicate its use. But, as a rule, the calomel itself does not cause vomiting, or disturb the stomach in any way. On the contrary, it improves the condition of that organ, and, in fact, of the entire digestive system.

Aloes, podophyllum, and colocynth have justly been banished from the pharmacopœia of enteric fever. They are likely to aggravate the inflammation of the intestinal mucous membrane. Sulphate of magnesia may be used with much less danger, and in some cases with considerable benefit. High injections have been highly commended, and no doubt are sometimes of positive value in clearing the intestines of much useless and deleterious material.

Leaving now remedial measures which promote elimination, we pass next to a class of drugs which are prescribed chiefly with reference to the condition of the alimentary canal. The more prominent members of this group are the mineral acids, pepsin, quinine, salol, turpentine, nitrate of silver, carbolic acid or phenol, and iodine. Most, perhaps all, of these agents may fairly be classed as antiseptics, and for this reason without doubt have a distinct value.

The mineral acids in particular, and especially hydrochloric acid, have been for a long time in very general use. Their action, although feeble, is distinctly beneficial. They possess antiseptic qualities to a moderate degree. They also aid digestion and improve the condition of the stomach. Pepsin also assists digestion and promotes assimilation, and is frequently prescribed with benefit.

Quinine, so useful in many other conditions, is of very little use in enteric fever. It rarely, if ever, materially influences the course of the disease, or produces any important modification of its important symptoms. If there is any good reason for suspecting the presence of a malarial element a few large doses may be given at the beginning. Such cases are rare. In nine cases out of ten, to put the matter conservatively, the patient would be just as well off without quinine as with it. In every case, unless there is a distinct malarial complication, probably something else would do much more good. If no patient with enteric fever were ever given any quinine, probably there would be fewer deaths from the disease; because if physicians gave up the indiscriminate use of quinine they would be more alert to detect the real nature of diseases presented for treatment, there would not be so many mistakes in diagnosis, and fewer patients who were really suffering from enteric fever would be allowed to walk about while being treated for the results of alleged malarial poisoning.

Salol, although theoretically a valuable antiseptic, especially in affections of the stomach and intestines, has very little influence upon the course or the symptoms of enteric fever.

Turpentine is much used to relieve tympanites and to strengthen the nervous system. It is a valuable antiseptic, and exercises a favorable influence upon the processes of inflammation and ulceration, as they affect the intestinal mucous membrane.

The value of nitrate of silver in the treatment of inflammations of mucous membranes and in promoting the healing of ulcers is universally recognized. Many have testified to its great usefulness in enteric fever, and its employment certainly rests upon a reasonable basis.

Of late years carbolic acid, or phenol, and tincture of iodine have been considerably used, not only separately, but also in combination, and especially in connection with repeated large doses of calomel. This has been called the specific treatment, and has come into considerable popular favor through the writings of Bartholow and Wilson. Carbolic acid and iodine are valuable antiseptics. Both have a sedative action upon the stomach, and are held in some repute as remedies for the relief of nausea and vomiting. Of a mixture containing one drachm of carbolic acid and three drachms of tincture of iodine, four drops may be given, in a wineglassful of cold water, every four hours. Administered in this way, in connection with calomel, the duration of the disease may be shortened, the severity of the fever may be diminished, the tendency to diarrhœa is lessened, the condition of the digestive organs is improved, nervous symptoms do not become so severe, there is less danger of hemorrhage, and convalescence is hastened.

Many, of course, will say that they do not believe these assertions. Some will say that they have tried this method of treatment, and that it will not do what has been claimed. Others will say that they have seen it tried with no better results than were obtained from an expectant plan of treatment.

Time permits me to mention only briefly some of the conditions which must be observed in order to secure the most favorable results.

In the first place, the treatment must be commenced early. One might reasonably hesitate to begin the administration of large doses of calomel to a patient who had been sick with enteric fever for two weeks. Carbolic acid and iodine, however, may be advantageously prescribed at any time, and continued until the patient is convalescent. Whenever a patient is sick with enteric fever his physician ought to remember and suspect the possibility of the existence of that disease the first time he sees the patient. Unless he can with reasonable confidence exclude its existence, he may wisely commence the treatment with calomel. It may not be possible to make a correct diagnosis in every case the first time the patient is seen, but it is far safer to treat a doubtful case as if the patient had enteric fever than to treat him as if he had no serious disease, and permit him to remain out of bed.

An assertion of this purport, published in the *New York Medical Journal*, on August 6, 1892, provoked the criticism from an obscure practitioner, in a small town somewhere over in New Jersey, that "if one may not be correct every time it would seem wiser and better for one to be reasonably certain of being correct every time before he begins specific treatment of any kind."

I had endeavored to make it clear that one ought to commence active treatment even, in some cases, before a positive diagnosis has been made, because if it subsequently becomes certain that the disease is enteric fever, the patient has been greatly benefited, and if he has not that disease, he has not been injured in the slightest degree by the specific treatment.

Of course everyone recognizes that physicians differ a great deal in temperament. One man always has a diagnosis ready for every case, and never knows that he is wrong, or has made a mistake. Another is habitually uncertain about his diagnosis, and rarely feels quite sure that he is absolutely correct. Between these two extremes there are men who have all degrees of confidence in their own diagnostic ability, and whose faculties of differentiating diseases differ within equally wide limits.

The man who is always sure is often wrong, and always dangerous. The one who is cautious is frequently right and generally safe.

If a man intends to wait until he can make a positive diagnosis—in a case which may possibly prove to be enteric fever—before commencing treatment, he certainly owes to his patients the duty of perfecting his skill in diagnosis to the very highest possible degree, and of not following the teachings of such writers as encourage delay in making a diagnosis. It is a pity that any man should allow his patients to die, because he is not certain what the matter is, and because he is too obstinate to adopt a good plan of treatment as long as there is any uncertainty.

A second condition of success with the specific treatment is that it should not be abandoned prematurely. After it has been commenced it should be continued, in the absence of any important contraindication, until the patient is convalescent. If it is discontinued after a trial of only one or two days, very little benefit from it will be observed. If commenced early and followed up continuously, there is no other treatment now in use which gives so good results in enteric fever.

But there will always be some physicians who will not treat enteric fever in the way described. They will frequently—others, sometimes—find it necessary to resort to other therapeutic measures.

Hyperpyrexia is the most common indication for symptomatic treatment. At present, bathing, according to the method of Brand, is enjoying an enviable popularity as a method of reducing temperature and preventing complications. This may answer very well in hospitals, where it makes no particular difference whether any individual patient dies or gets well, and where there are conveniences for bathing and plenty of assistants. I venture, however, to predict with considerable confidence that this treatment will never be generally adopted in rural districts nor in private practice in cities.

Much testimony to its efficacy has been presented, but rarely has anyone taken the pains to describe in print the piteous and ineffectual appeals to be spared the distress of further Brand baths, of patients who, in spite of a continuance of the baths, died. Such cases never occupy a very conspicuous place in scientific reports on modern antipyretic treatment. The pathetic side of the story never appears in statistics.

Of the drugs which may be used to effect a reduction of temperature, antipyrine, acetanilide, and phenacetine are well known, and very useful. Given with moderation, and yet with adequate boldness, their effect carefully watched, and unfavorable action guarded against by the use of alcohol, they act with a reasonable degree of certainty, and undoubtedly have been the means of saving the lives of many persons who have suffered from enteric fever.

Stimulants, especially whiskey and brandy, are of great value in many cases. They should not be given as a matter of routine to every patient, and are rarely needed at the beginning of the disease. When the action of the heart begins to become weak, and symptoms relating to the nervous system become conspicuous, the administration of stimulants should be commenced. In some cases large and frequent doses will be found necessary.

If insomnia is a troublesome symptom, the bromide of sodium, morphine, or hydrate of chloral are useful. Their relative value is indicated by the order in which they have been named. Either one of the three may be given separately, or the bromide of sodium may be given with either of the other two, or all three may be prescribed together. These three drugs may also be used if there is much delirium, but morphine will generally be found to act less favorably than either of the others, which, moreover, may often be used together very advantageously. Their action should be supplemented by cold applications to the head.

When diarrhœa is excessive and persistent, bismuth and morphine will in most cases be found useful. If intestinal hemorrhage occurs, turpentine or ergot will prove most valuable. Their action should be aided and supplemented by the external use of cold compresses.

In conclusion, the following rules may be formulated. They constitute a safe guide in the treatment of enteric fever:

1. Never overlook the disease or forget the possibility of its occurrence in any patient who seeks medical advice.

2. If the symptoms indicate that the patient may be suffering from enteric fever, begin to treat him at once, and follow up the treatment until it is certain that he has not that disease, or until he is well.

3. Commence the treatment by putting the patient to bed and keeping him there, by forbidding all solid food—limiting him if possible to milk—and by prohibiting reading, writing, and conversation.

4. Commence at the same time the so-called specific treatment, embracing the use of repeated large doses of calomel, in connection with carbolic acid and tincture of iodine. Commence this medicinal treatment early, and continue it until the patient is convalescent.

5. Do not permit the patient to abandon the recumbent position, a liquid diet, and absolute quietude until for a week the temperature, at no time during the twenty-four hours, has been above 99° F.

6. Do not condemn the specific treatment until you have tried it in the way described, and do not attempt to form an opinion in regard to it until you have tried it in a series of cases, and have carefully observed its effects, and compared them with those obtained by other methods of treatment.

CORRECTION OF DEFORMITIES OF THE ORAL REGION.

By ALBERT WESTLAKE, D.D.S.,

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A WELL-KNOWN and recent authority on the deformities of the oral region says: "The attempt at the replacement of a nose may be regarded as exceptional, for the reason that it is so conspicuous an organ that the appearance is of more consequence than utility. There is no organ of the entire economy the loss of which creates so hideous a deformity as the nose, nor is the successful prosthetic restoration of any organ so difficult."

Anticipating the interest that would be excited among the medical and surgical profession by a successful attempt to overcome such a deformity, I have had plates prepared from photographs, "before and after," and present them in this issue, together with an interesting ear case and an illustrated report of a practical dental device to overcome the deformity attending the extirpation of left half of inferior maxilla.

The history of Exhibit No. 1, artificial nose, is as follows:

In 1870 Mrs. X——, now aged sixty three, through the indiscretion of her husband, contracted syphilis. She first complained of soreness in the region of the nose and malar bones, and of an itching and pain in the hard palate. Subsequently the turbinated, vomer, nasal, and palate bones were removed. The appearance after twenty years is represented in Figs. 1 and 2, the parts, at present, being in a normal condition. After giving the mouth proper dental treatment by thoroughly cleansing and filling the root canals of remaining three teeth, I fitted gold cap-crowns over each tooth and then soldered them together, making a perfect union. They were carefully cemented to the teeth, and being closely fitted under the gingival margin of the gum, were comfortable and perfectly aseptic. I next fitted an upper denture, which closed the opening in the hard palate and articulated naturally with the lower teeth.

In the adjustment of a nose I followed a plan I had heretofore used in such cases. First taking a plaster cast of the head (and in the case of this patient being aided by an old photograph), I succeeded, by a careful appreci-

ation of the general facial contour in preparing a preliminary nose in wax. This is made as near as possible in color to the complexion, so as to secure the proper blending of shade and expression. When satisfactory to my patient and myself, I made an aluminum cast, about a line in thickness, and in weight not exceeding four pennyweights. Over this I painted the flesh enamel, being a preparation of wax, gum-arabic, gutta-percha, etc., which resembles closely the translucency of flesh, and is not affected by ordinary thermal changes. After the nose was thus prepared and adjusted to the face, I was fortunate in securing the services of Mr. Constant Thys, the artist in charge of the Eden Musée, who imparted the life-like appearance, blending with the complexion so closely, even to the wrinkles, pores, and veins, as to challenge detection.

The main difficulty was then presented in securing the nose to the face. I overcame this, after several trials, by fastening a bar of gold and platina to the inner ridge of the nose, and passing it down at a carefully studied angle through the centre of the artificial denture. Various devices were tried to secure the bar after passing through the plate. I found that although a nut and a triple thread would work well when I used the forceps or a specially prepared holder, yet the patient found it exceedingly awkward. I also rejected the plan of securing the bar by a spring-nut similar to those used in French clocks, fearing that if it suddenly loosened the patient would swallow it.

I finally decided and adopted, much to the pleasure and comfort of my patient, the simple extension on the plan of a blade and spring in a pocket-knife. As the nose was placed on the face and the bar passed through the hole in the plate, she could, by simply pressing the extension, spring it tightly in a groove in the plate, and as easily remove it.

The nose when adjusted is represented in Fig. 3. The only apparent joining that can be noticed is immediately below the junction of the eyebrows, and this is not visible when the patient wears glasses. Spectacles are not necessary to its stability. In masticating there is no movement of the nose.

As shown in Fig. 1, there was partial destruction of the soft palate. As our authorities state, and as we well know, this organ is an important factor in the perfection of human speech. The voice, as it issues from the larynx, is modified in tone and character, and interrupted in its passage by certain organs, the most important being the velum palati. This acts as a curtain, directing all the sound at times through the mouth, and again, combined or entirely, through the nasal passages, by being in firm contact with the dorsum of the tongue. The soft palate, in conjunction with the muscular wall of the pharynx, must be under active control to secure the purity of speech. A certain indistinctness of utterance follows where the soft palate is deficient or deformed (as often found after operations of staphylorrhaphy, when the newly formed septum is rigid, tense, and deficient in length), or the pharyngeal walls are paralyzed or inactive.

Although the velum lost in this case is not very extensive, requiring only an obturator less in size than a pigeon's egg, yet I was unable to fit it with comfort, owing to the gagging or apparently suffocating sensation it caused. The restoration of speech to this patient is remarkable. The improvement is marked in the vowels and diphthongs, because the plate covering the aperture in the hard palate allows the resonance in the buccal cavity —where all vowels are made—and closes the abnormal communication with the nasal cavity. The physiological action of the nares and nostrils is, of course, important for the production of purity in speech, and as this nose is mechanical, there remains imperfect sounds which practice will hardly overcome.

The patient, at my suggestion, has commenced lessons in elocution. I have advised the study of the French or some foreign language, mainly to divert the mind from the forced habit of speaking her own vernacular badly.

Professor J. Bond Litting, at the meeting of the New York Odontological Society, said: "I had the pleasure of seeing the finished case mentioned by Dr. Westlake, and I must say that the appearance and adaptation were as complete as I have ever seen. In fact, I do not doubt but that the party might walk into the room and a casual observer would not notice that the nose was artificial. The attachment was complete in the fact that there was no movement during mastication, it being attached to the plate, and the plate being fastened to the teeth, so it would hold perfectly firm. That the tissues may yield in the course of time I have no doubt; but the attachment that Dr. Westlake has with the spring, which will

Fig. 1.—Exhibit of model of jaw. Fig. 2.—Exhibit from photograph before operation. Fig. 3.—Exhibit from photograph after operation.

shut down closely, so as to hold the rod which fastens through the plate, I think will enable the patient to wear it a considerable length of time without alteration."

Fig. 4 represents a remarkable congenital deformity of the ear. The patient is a well-developed lad, twelve years of age, and the ear of the right side is beautifully formed.

During the early spring Dr. Charles McBurney made a skilful operation, opening through the stub close to the skull, providing a slit half an inch long and very strong. A skeleton frame was then made of aluminum, with platinum and gold spring, and an ear (see Fig. 5), an exact copy of the opposite one, composed of similar enamel material used in the nose case, was then cast. The piece of gold and

Fig. 4.

platinum marked A, was passed through the slit, and as the ear was pressed it locked tightly. To prevent too great a pressure on the stub, I advised the use of an adhesive cement about the edges of the ear, which held it closely to the skin, so no junction was apparent. When it was to be removed a small point posteriorly was pressed which unlocked the spring. There was no auditory canal, the patient hearing on that side by contact only.

Fig. 6 represents the dental aspect of the inferior maxilla immediately preceding its excision in March, 1891. About one year previously the patient had first noticed a small lump on the outer side of the left inferior alveolar process, opposite the second molar. The enlargement had grown rapidly, especially during the last few months, and was extending posteriorly, accompanied by sensation of throbbing and itching. The tumor was about as large as an egg, was hard, painless, ulcerated on upper surface, and bulging chiefly outward. It extended nearly to the angle. The second molar was pushed far inward. In the left submaxillary triangle an enlarged lymphatic, nearly as large as a bean, was noted.

Fig. 5.

Dr. Charles McBurney, who had charge of the case, explained to me that he was desirous of finding some way to overcome the great deformity which usually results from such an extensive loss of tissue. I thereupon obtained correct plaster representations of the teeth and their articulating relations, and constructed an interdental splint which was fitted and kept in readiness to be inserted immediately after the operation, to retain the remainder of the maxilla in normal position during the process of healing.

On March 21st, Dr. McBurney operated with a view to the removal of nearly the entire left half of the inferior maxilla. An incision was first made just beneath the lower edge of the jaw, extending from the median line to the angle. This incision was supplemented by a vertical one extending from the angle upward along the posterior border of the ramus as far as the middle of the lobe of the ear. The cheek and superficial soft parts were dissected from the outer surface of the bone, and the muscles, etc., from the inner surface as far as the mucous membrane, keeping well off from the tumor. The mucous membrane was then divided, the left first bicuspid extracted, and the inferior maxilla sawed through at that point. The end of the left section was then

Fig. 6.

seized and dislocated outward, the pterygoid muscles were divided, and the bone removed at the articulation.

The splint was adjusted before the patient left the operating table, to illustrate its application in view of the surgeons and students present. The splint was then removed until recovery from the influence of the anæsthetic. Thereafter it was kept in position, except during necessary irrigations, until the patient was dismissed as cured.

Fig. 7.

It was a happy inspiration that prompted the preliminary construction of this appliance, as the recovery of the patient was more rapid than ordinary, the splint fitting accurately and keeping the articulation of the remaining teeth continuously normal. On March 30th the sutures were removed, and on April 16th all the dressings were discontinued by reason of the complete healing of the parts. The microscopical examination of the

tumor demonstrated it to be a spindle-celled osteo-sarcoma.

Figs. 7 and 8 represent the resulting deformity. Accurate plaster impressions of all the teeth were obtained, and their articulations were correctly represented by the models. Silk ligatures were attached to each of the remaining inferior teeth, and the ligatures were successively caught on the hook of a "cotton scale" graduated to

Fig. 8.

register ounces and their fractions. By traction on the scale against the retracting or extensive action of all the muscles of the dismembered jaw, the amount of force requisite to overcome the drooping tendency of the jaw (see Figs. 7 and 8) was ascertained. The maximum distributed downward, or mouth-opening force of which the patient was capable, was registered at four pounds and two ounces. The involuntary or habitual tendency of the

Fig. 9.

jaw to drop equalled an average force of a little less than one pound.

An examination of all the accessible text-books disclosed no measurements of the dynamic powers of this group of muscles under like circumstances, and hence I infer the novelty of both theory and practice in the course and construction adopted in this case.

The first procedure was to fit and adjust upper and lower electro-metallic plates provided with retracting spiral springs of gold wire, but this contrivance was abandoned as being too bulky and lacking sufficient tensile strength in the springs to draw the jaw into position and retain it during the process of mastication. Several devices were then tried in various ways, including an inclined plane of steel. The final plan was to make for the superior left molars two gold cap-crowns, which were soldered together, and at their buccal junction there was soldered a stiff and knobbed gold wire projecting downward at an angle of about forty-five degrees. A gold cap-crown was also made for the inferior left cuspid, and to the labial surface of the crown was soldered another short-knobbed gold wire extending in the direction of normal occlusion. A steel spring similar to that used in the flexible connection of the dental engine with the hand-piece was repeatedly cut off and tested, until the required resilient power was found in a length of thirty-two coils. This spring was electro-plated, and the looped ends slipped over the knobs on the crowns, which had been previously cemented on to the molars and cuspid, respectively. The action of the device was very gratifying, for when the patient closed her mouth the remaining teeth were brought into normal apposition, as represented in Fig. 9, and were so retained by the action of the spring. The great mental depression experienced by the patient in consequence of the awkward position of the jaw (see Figs. 7 and 8) was immediately relieved, and both mastication and speech made easy.[1] The spring could be removed at will by the patient, and as occasion required a new one was substituted without displacing the cap crowns, which, being accurately fitted and highly polished, are perfectly aseptic.

As was confidently anticipated as the result of the splint and mechanical expedient, the remaining operative muscles were strengthened, so that within six weeks after the operation the patient had nearly overcome the retrograde tendency of the jaw, and upon removal of the spring could articulate the teeth. About six months after this the muscles were sufficiently strong for the mastication of meat, etc., without artificial aid, and I then removed the spurs and spring, and fitted a metal plate carrying a vulcanite "plumper," highly polished and fitted to fill out the lower integuments so well as to render the detection, at present time, of an operation only by a faint scar beneath the artificial ramus.

The precautionary measure in having in readiness the interdental splint supplemented by the spring attachments, together with the intelligent co-operation of the patient in training the muscles, have combined to secure the present success.

The First French Ovariotomist.—Ovariotomy was, it appears, performed for the first time in France by Dr. Voycikowski, on April 28, 1844. The patient was a Madame Reptumar, of Montfort, who died only a few years ago. Voycikowski, who was of Polish extraction, was born in 1810, took his doctor's degree at Montpellier in 1840, and practised his profession at Quingey, in the department of Doubs, till 1861, when he migrated to Paris. He died at Dijon, in very poor circumstances, in 1882. Dr. E. Rolland, of Toulouse, has taken the initiative in starting a subscription to raise funds for the removal of Voycikowski's remains to the new cemetery at Dijon, and for the education of his children.

Guaiacol Salts have, of late, been tried in cases of tuberculosis. The guaiacol carbonate or the guaiacol benzoate may be advantageously substituted for the preparations of creosote. Dose, from three to five grains up to point of tolerance.—Solis-Cohen.

[1] I have noted as an interesting physiological feature of all such surgical operations coming under my care, that the patient, for some period subsequent to the operation, complains of considerable loss of memory.

A MURAL DERMOID CYST OF THE UTERUS.

By W. W. STEWART, M.D.,

COLUMBUS, GA.

(Illustrated by Author.)

Before reporting this case I will give a brief *résumé* of the theories of the formation of dermoid cysts, their pathology, and their frequency.

Those theories, which have been advanced by different pathologists, are as follows: Extra-uterine pregnancy; diplogenesis by fœtal inclusion; plastic heterotopia (Lambert); pathogenesis; theory of impaction (Verneuil).

Extra-uterine pregnancy can well be excluded, as many instances are on record where they appear in the male as well as the female, and in numerous instances in children. Also their appearance in different portions of the body far removed from genital tract.

Diplogenesis by fœtal inclusion has a cloud thrown upon its verity by the large number of teeth often found in many cases.

Autenreith describes a case out of which three hundred teeth were taken, and more remained.

Schnabet reports a case where one hundred teeth were removed. Planquet, one from which three hundred were taken.

Plastic heterotopia is more a name than a description of a pathological process.

Pathogenesis, which considers their formation due to proliferation of germinating epithelial cells, is not satisfactory, as it fails to account for the presence of similar growths in other parts of the body where there is no epithelium.

This brings us to the true theory, at least the most tenable one, that of impaction, the theory of Verneuil.

According to him, a portion of the blastoderm is forced by pressure into the tissues, there remaining dormant for a while, afterward developing, thus producing by its growth erratic development of normal tissues.

Lannelongue classifies another formation as fœtal cysts where fœtal remains are found, and considers them as a combination of cyst and double monster.

The cyst-wall is usually composed of many component parts—as unstriped muscular fibres, epithelial cells, fibrous tissue, mucous membrane, structures much resembling true skin, containing hair-follicles, sweat-glands, and nerve-endings. Embedded in its walls are found bones of various shapes and sizes, teeth and hair, in greater or less abundance, growing from puckered ridges or protruding masses of tissues resembling true skin or mucous membrane.

In the cyst-cavity there has been found, in one instance, a body much resembling the human eye in minute structure. Also nerve-tissue, gray matter, balls of hair and nails. Olshausen collected statistics of 2,275 cases coming from a series of ovariotomies performed by Spencer Wells, Keith, Schröder, Krossowiski, A. Martin, Billroth, C. v. Braun, Esmarch, Dohrn, and himself. Out of this number there were only 80 dermoid cysts, 3.5 per cent. This shows the rarity of their development.

The case which I report is, as far as I can determine by my researches into the literature of the subject, the only case where the dermoid cyst was of the uterus. In the large majority of cases they are of the ovaries. Cases are reported where they have existed in the brain, lungs, floor of the mouth, orbit, mediastinum, mesentery, and testicles.

The case to which I would now invite your attention is that of Mrs. W——, aged thirty-one; married ten years; four children; brunette, five feet three in height; weight, when in health, one hundred and thirty-six pounds. Was brought to me on September 4, 1893, by Dr. W. D. Williams, of Cataula, Ga., under whose care she had been. He brought her to me for operation, having diagnosed an abdominal tumor, the character of which he was uncertain.

History.—When a child, was not strong; could not play as long nor as violently as other children, violent exercise producing cramps in the stomach. She continued in about the same condition till puberty. Her menstrual flow appeared in her thirteenth year, causing her much pain, bearing down in character; this condition remaining till one month after marriage, when she became pregnant. At the age of twenty-one she gave birth to her first child, labor lasting eight hours; normal in character. Eighteen months thereafter became pregnant again, labor lasting three hours, no complications. Again, after thirty-three months, became pregnant, labor lasting two hours, normal in character. Thirty months after last labor fourth child was born. Easy labor, lasting one and one-half hour. Did well till seventh day, when she was taken with one of her old attacks of cramps in lower portion of stomach, unusually severe in character, causing so much pain that her attending physician was compelled to remain all night, administering opiates. After this she had some fever lasting for several weeks. All menstrual pains ceased after birth of first child.

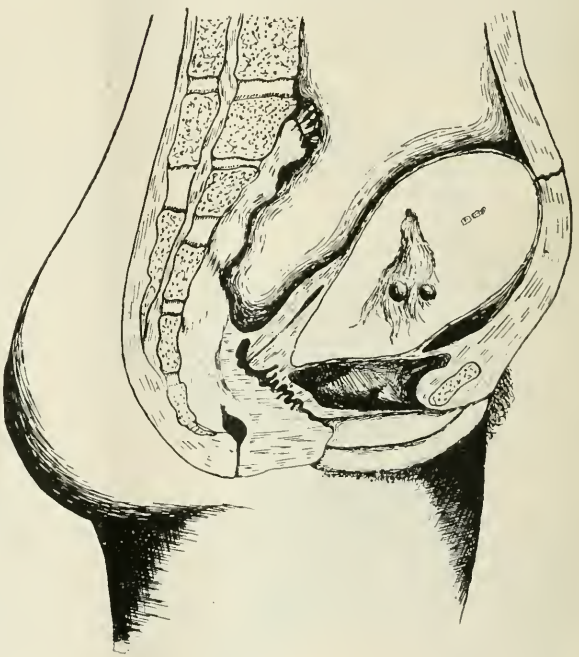

Fig. 1.

On March 20, 1893, she developed typhoid fever which continued for ten weeks, leaving her much prostrated. Fever continued after all typhoid symptoms disappeared, it then assuming a septic chart ranging from 99° F. to 103° F.; night-sweats profuse. She then began to notice an enlargement of her stomach. Thinking she was pregnant, consulted her physician on the subject, who for a while thought it a normal pregnancy.

On May 30th she had a uterine hemorrhage which was controlled by the administration of ergot. This reappeared every twenty-eight days, and was treated in the same manner till August 21st.

August 25th, noticed a soft spot three inches below

umbilicus, in median line. This point had been the focus of oft recurring pains since enlargement of stomach began. Pains were rhythmical in character, causing her to fear an oncoming abortion.

On August 26th it was examined by Dr. Williams. Detecting fluctuation he opened it by a small incision extending only through the skin. It discharged a quantity of foul-smelling pus mixed with white flocculi resembling closely vernix caseosa. The fistulous opening thus formed continued to discharge small quantities of pus. No more rhythmical pains were noticed after incision was made.

On September 4th I made a careful examination which

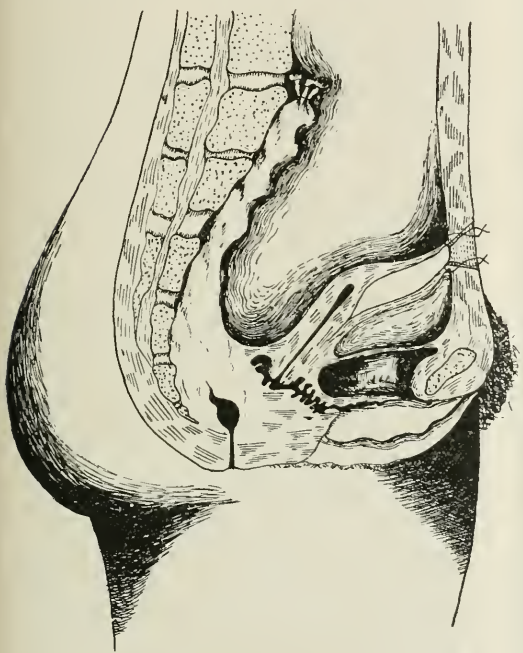

Fig. 2.

elicited the following facts: Vagina elongated, otherwise normal. Cervix drawn backward and upward, resting in median line, normal in consistency and size. Uterus could not be isolated from abdominal tumor, which was about the size of a man's head, and adherent to abdominal wall in median line. Cul-de sac of Douglas empty. Laterally, structure seemed to be in normal condition. Abdominal walls were tense, not permitting tubes or ovaries to be made out. Externally, the tumor had exactly the feel of a pregnant uterus. Uterine contractions could be detected by bimanual palpation. Pulse, 100; temperature, 102½° F. Cachexia marked. Face covered with brown blotches. Body emaciated. Urine normal.

Diagnosis.—Suppurating mural tumor of the uterus, the character of which could only be detected by exploratory incision. The condition, as revealed by examination, is depicted in Fig. 1.

Temperature remained between 100½° F. and 102½° F., and pulse between 100 to 120, from September 4th to 11th, the day of operation.

After preparatory treatment, assisted by Dr. George J. Grimes and Dr. McD. Blanchard, and in the presence of Drs. Williams, Tucker, and Pitman the operation was performed. An incision three inches in length, in median line, the fistulous tract marking its upper extremity, was made through superficial structures and down to peritoneum, which was drawn up with mouse toothed forceps and incised, which brought into view a dark-reddish body (the distended uterus). This in turn was caught up by tenaculums and sutured to abdominal walls, to which it was already adherent, and incised. Immediately there gushed out about one quart of thick and extremely offensive flocculent pus. The fingers were then introduced into sac, and a mass of matted hair, in balls, with long wisps connecting them, was removed. On further investigation three teeth were found embedded in left wall of abscess cavity.

It was evidenced, by palpation and rhythmical contractions, that the sac was a distended uterine wall. And from the deep implantation of the teeth, probably penetrating through the uterine wall, and the highly septic condition of the sac, it was deemed best to let them remain as they were.

Sac was then well irrigated with boiled water and packed with iodoform gauze, it requiring five ounces to fill it. At next dressing, two days after, sac was well washed with boiled water, then with peroxide of hydrogen, full strength, then packed with iodoform gauze. At this dressing it would contain only one ounce of gauze.

The same dressing was continued every second day till sixth day, when a solution tincture of iodine the color of sherry wine was substituted for peroxide of hydrogen.

The rapid contraction of sac continued. On the eighth day would contain only one ounce of water. Pus almost disappeared.

The rapid contraction of the sac further proved the nature of the sac-wall.

Temperature after operation fell to normal and remained so. Pulse to 80, regular and much fuller. Remainder of recovery uneventful.

STATIC ELECTRICITY IN CUTANEOUS AFFECTIONS.

By S. H. MONELL, M.D.,

NEW YORK.

THE literature of static electricity does not appear to indicate that it has hitherto rendered any important service in the treatment of skin diseases. The "Index Medicus," the "Annual of the Universal Medical Sciences," and late editions of dermatological text-books are equally silent upon this use of the static machine. Crocker disposes of the whole subject of electricity (apart from electrolysis) in a short paragraph, viz., "The galvanic current has been occasionally used to relieve the pains of herpes zoster and for pruritus, but it and the faradic current have found but small employment hitherto in dermatology, except in Raynaud's disease, in which galvanism has been of some service." A general survey discovers other writers who give more credit to these currents than Crocker, but none appear to employ the static machine in reported competition with "lotions, ointments, dusting powders, tar, and arsenic." It is therefore to be presumed that a report of an attempt to extend the therapeutic properties of the static current into a new field of usefulness will enlist the interest both of dermatologists and the friends of medical electricity. Last spring a young man came to my office who had been suffering for six months from furunculosis. History and examination failed to disclose any apparent cause. During the period of his affliction he had found a change of climate, rest, dieting, sulphur, sulphide of calcium, alteratives, tonics, etc., equally unavailing. He had been in other and very competent hands for treatment, but did not obtain relief. There finally being no indicated drug left untried in his case, he was placed upon my static platform and its influence tested. An improvement at once began. A few sittings were given, extending over a couple of weeks, when he was discharged without a single boil, and he has had none since. Shortly after this date I treated a case of herpes zoster in the same way. The burning and itching were immediately les-

sened, and the case rapidly went on to complete relief. A peculiar case of chronic cutaneous hyperæsthesia was next treated with static electricity.

Case I.—The subject was a male, aged sixty-two. The disordered sensation was limited to the surface of his body, his upper and lower extremities being entirely free. It had annoyed him persistently for thirty years, and during the past eight or ten years it had forced him to undress and retire to bed about four o'clock P.M. daily, as the weight and contact of his clothes became unendurable. In other respects he was perfectly able to attend to business. Firm pressure was fully tolerated, but slight contact or a current of cold air caused an extreme aggravation. This condition pursued the even tenor of its way undisturbed by season, climate, diet, constitutional state, outward applications, or internal remedies. I devoted more than a year to attempts to relieve him by drugs, but with no better fortune than my many medical predecessors from whom I had inherited the case. Static electricity was then employed. Its effect was grateful. In a week he was remaining dressed until seven or eight o'clock in the evening. In two weeks the relief was such that he was no longer compelled to retire before the usual hour. He continued this treatment for a month and a half, during which he received twelve treatments at my office, and then left the city for the summer. I am informed that his improvement is still maintained, and that he has a satisfactory degree of comfort.

But it is in eczema that I have been most delighted with the effects of static electricity. No matter how chronic, how thickened, obdurate, or extensive the case may be, it will find its master in skilfully directed static electricity. Books teem with prescriptions for this protean disease, a sure sign of the uncertainty of medical treatment. In fact, it is usually stated at the end of an interminable list of drugs that "there is no specific for eczema." Before proceeding to the citation of cases it will be interesting to every student of the physiological action of static electricity to hark a moment to the causes of this disease. "Of the predisposing causes the most universal and active is some disturbance of digestion, constipation, mal-assimilation, perverted nutrition, derangement of the liver. At other times the kidneys are at fault. Chlorosis and anæmia, uterine disorders and the menopause, are active factors. The strumous diathesis, derangements of the nervous system, rheumatism, gout, and varicose veins are other predisposing causes." Every word of this etiology sounds like a trumpet-call for static electricity. Perversions of nutrition and nerve action are especially amenable to its influence. It is a regulator of the body functions. I believe that skilfully directed static administrations—and particularly in the form of "potential interruption" lately introduced by me, and now briefly known as "the Monell Method"—constitute the most effective nutritional stimulant known to medicine; and the permanency of its effects indicates that it is far more than a mere stimulant. In eczema the results of static electricity are particularly happy. I have treated a number of cases successfully. All surface irritation and itching has been speedily allayed. In one case the first treatment gave entire relief for forty-eight hours. Moist eczemas become dry, chronic squamous eczemas, and indurated, thickened surfaces, scale off, healthier skin appears, and the transition to normal cuticle goes rapidly on under the influence of the tonic static stimulation. A few examples may be cited.

Case I.—Male, aged forty-five. Had syphilis twenty-five years ago, with recent tertiary lesions. One year ago had pruritus ani. By diligent scratching he had developed an eczematous condition of the entire inter-natal region and scrotum, with three large irritable ulcers and fetid suppuration. Pain prevented him from walking except very slowly, and for six months he had been unable to sit on a chair. Sleep was badly broken, and he presented a pitiable condition. Treatment was begun with the usual remedies, but three days later (September 7th) he appeared, suffering such intense pain and distress that I determined to test the efficacy of static electricity. It fulfilled my expectations completely. Two days later he again called and requested me to give him more static electricity, as it had afforded him his first real relief. He could now walk quite briskly with scarcely any pain on motion, and the fetor had been entirely removed. By September 14th suppuration ceased, the ulcers were healing, and the itch and pain were controlled. September 16th, ulcers scabbed over, can sit now with comfort and walk easily. September 20th, all pain gone, ulcers reduced to one-half original size, general condition greatly improved. Can run for a street car, for the first time in a year. September 25th, nearly well. September 29th, presented himself to report entire recovery, and treatment was stopped.

Case II.—Male, aged forty-seven. Bridge-builder; often stands in salt-water all day. Had eczema two years. Location chiefly forehead, nape of neck, bend of elbows, and both lower extremities. From knees to ankles the entire surface was affected, and ankle-joints were swollen so he could not wear shoes. Paroxysms of itching were severe. Treatment was begun with galvanism and continued for two weeks, with some relief to his intense pain, but with slight general improvement. Static administrations were substituted on September 4th, and at first were applied daily. On the 14th he was able to discard sandals and resume shoes, walked without pain, slept comfortably, and each treatment controlled the itching till he came again. His forehead now appeared normally free from eruption. By September 28th he appeared nearly well, the lower third of extremities alone showing any traces of the affection. Reported himself free from all surface irritation, and did not return for further treatment. He had nine static applications altogether.

Case III.—Female, aged thirty-eight; married. Oval patch of squamous eczema on left breast, one inch above nipple, two inches long by one and a half wide. Has been constantly present for fifteen years, changing but little in its condition and resisting such treatment as various physicians gave it. When first seen by the writer, on September 21st, it was very red, rough, and itchy, and covered with a thick scaly surface. Static applications were made on September 21st, 26th, 28th, October 3d, 9th, 16th, and 23d. Between sittings she has almost entire relief from itching; the patch is already reduced one-half in size, and normal cuticle is beginning to appear in places. This improvement in a lesion existing for fifteen years has been very gratifying to the patient; but it can hardly be questioned that the static current, which is so powerful to regulate organic functions and improve the nutrition of muscles and nerves, is equally able to regulate the functions and improve the nutrition of the skin. Other cases could be cited, but the foregoing are sufficient for the purposes of this article. In every lesion of the skin where stimulation of local or general nutrition is indicated, static electricity can be made an important factor in the treatment.

It also seems probable that further experience will prove static electricity to be one of the most potent of anti-pruritics. Carbolic acid has won its fame as "the opium of the skin." Its sedative property is invaluable, though the ease it affords is often brief. The relief of all painful, pruritic, and neurotic symptoms associated with the cases of skin disease which I have treated with the static machine has, however, seemed to be prompt and lasting. In the itching of eczema, where a full week has elapsed between two séances, the distress has been controlled during even this long interval, and in no case treated by me has this symptom continued as an annoyance. I will report one case which may be considered typical, viz., chronic pruritus of the scrotum, existing since 1883. The victim of this exasperating neurosis has been under my close personal observation for several years, and I had made fruitless attempts to cure him. From 1883 to 1890 he had made the most careful, painstaking, and persistent search for a means of relief. His

efforts had received the able assistance of Dr. Bulkley, Dr. Keyes, and a number of other excellent dermatologists in this and other cities. He had tested the whole art of medicine, and finding in it no lasting benefit he abandoned all hope of being cured. The itching in this case was unusually severe, even by day, and the paroxysms on undressing and during the night interfered greatly with sleep and impaired his general health. I began the administration of static electricity with less confidence than in my cases of eczema, and at first it made no impression upon the trouble, but on the third visit to my office he reported a slight improvement. The gain has slowly and steadily continued. He is at length emancipated from the nightly applications of lotions and sedative ointments. The frenzied paroxysm upon undressing is absent, and such itching as at times occurs is mild and tolerable compared with the suffering of the past. It seems reasonable to expect an ultimate cure, the main uncertainty arising from the fact that he has obtained so great a degree of comfort that he does not come regularly for treatment.

665 Lexington Avenue.

KEY-NOTES TO THE TREATMENT OF CONSUMPTION.

By E. C. ATKINS, M.D.,

COLORADO SPRINGS, COL.

In these days when hundreds of invalids are seeking our mountainous elevations and sunny climate for the cure of pulmonary disease, and when physicians from all over the world are sending such cases here for treatment, it is hardly necessary to enlarge upon the advantages of climatic treatment in this most intractable disease. That many such cases recover here is too well known for argument. Looking back over four years of personal experience with the disease, and of careful study of my own and hundreds of other similar cases, certain factors stand out prominently as essential and vital points to be observed in treating this disease, and which, if neglected, too often end in failure and death.

I am convinced that too much reliance is being placed upon medicine and the unaided climate, and that vital principles of nutrition, hygiene, and the common laws of health are being utterly neglected. A blind and implicit trust is placed in the climate, while the patient is allowed to violate all the laws of health, which, under any other circumstances, would have been taken into account.

No one denies that, whatever the original cause of phthisis, whether it be the tubercle bacillus, as most of us think, or something else, once established it is a wasting disease, with failure of all the nutritive functions as prominent symptoms in most cases.

We have sought in vain for medicines that will reach the foundation of this disturbance, and the ever increasing number is evidence of the futility of all. Cod-liver oil, so much relied upon by many, does more harm than good; it disorders the digestion, and, as often as not, passes the bowels unchanged. Creosote, a recent favorite, if it has any beneficial action, seems to have its effect indirectly through its action on the digestion. Malt, hypophosphites, and other tonics and nutritives act indirectly as aids to nutrition. The drug that has any specific action on the disease itself has yet to be found, unless (oh! shades of our ancestors!) the "animal juices," "pulmonine," shall prove to be that potent agency.

I have noticed that the cases that recover here are either the incipient hemorrhagic ones, or, if more advanced, are those that have a good stomach and a vigorous appetite, who are able to digest and assimilate a sufficient amount of nitrogenous food to supply the waste and build up the diseased tissue. Without such a stomach neither this nor any other climate can cure the disease, unless the digestive powers can be roused to do their duty. This they can be made to do, but not with medicine. The bitter tonics, the nutritives, alcoholics, all fail us in our time of need.

The climate of Colorado Springs will accomplish a cure if it has a fair chance, but it cannot do so without the proper materials to work with. Nature's laws and her mute appeals for help must not be entirely disregarded if good results are to be looked for. I wish to call attention to a few points which I feel will appeal to every thoughtful physician.

The Stomach.—If, as is the case with many, it will not work, it must and can be made to do so. It is absolutely necessary that an abundance of nitrogenous food should be digested and assimilated, for it is to this food alone that we must look for material to restore the diseased tissues. The appetite must be roused to the point of taking meat with a relish. This can be done even in those cases where there is great disgust for food, and where, apparently, no meat is digested.

Let us suppose a case. A patient in the first or second stage comes here for treatment. If he improves, well and good. If not, there is a reason for it, and with careful examination that reason will be found in some grave disturbance of the digestive and assimilative functions. It may manifest itself as a slight impairment of appetite, or there may be entire loss of appetite, vomiting after eating, and colliquative diarrhœa. His stomach heaves at the thought of meat. We find him eating no solid food—a little soup, milk, fruit, mustard pickles, and the like.

How much building material can be got out of a diet of that kind! How can climate work a cure when there is no material to work with! The lung lesion may be such that the patient ought to recover, but can any sane man expect him to do so while he starves himself to death on a diet in which the tissue-building foods are conspicuous by their absence?

Such a case dies from exhaustion induced by the lack of proper food rather than from the disease of the lung. Such a condition gives all the advantage to the disease, and it never fails to make the most of it. Now what can we do if the patient will not eat? Shall we sit calmly by and wait for the climate to act under impossible conditions till the patient dies for the lack of a little common-sense guidance? Such a case, even in the late second stage, can be made to respond to treatment, and to eat meat with abundant relish.

The day is passed when such advice as "eat anything you want, and plenty of it," can be given to such a case with safety. Let us have a reason for what we do. Let us feed our patient according to well known physiological laws, and with a scientific and accurate knowledge of what and how much he needs. It does not make one particle of difference whether the bacilli are found in the sputum or not. Whether the case is tubercular, hereditary, a result of the grippe, or what is the cause, the fact is that he responds to treatment just as quickly in the one case as in the other. Pay no attention to his plea that he "cannot eat meat." Put him at once upon a diet of broiled beef pulp and hot water, exclude all other foods and drinks, and wait for your results. It will not be long before the stomach accepts the terms offered, and goes to work in earnest; the appetite returns, and then the trouble is to keep the patient from eating too much.

Quantity of Food.—The appetite becomes ravenous, and the greatest care must be exercised to prevent the patient from eating more than can be assimilated. No good and much harm comes from over-eating. The appetite is no guide to quantity or kind of food. They want everything and will eat everything if you let them, but the oxidizing capacity of the body is limited. In the healthy adult it is estimated to be seven hundred and fifty grammes in a day, but this amount is largely diminished by the enfeebled condition of the consumptive invalid. If more than the required amount is taken there is trouble at once. Undigested food remains in the intestines to decompose and ferment, causing diarrhœa and other digestive disturbances, while nature attempts to eliminate some of the excess, or what has been absorbed

through the lungs, causing irritation there; more or less soreness is felt in the diseased area, the cough becomes worse, and the expectoration is more abundant and contains more pus. If this excessive feeding is allowed to continue, the kidneys are overtaxed, the urine becomes high in color and specific gravity, and is loaded with urates and uric acid, and finally albumin appears and grave symptoms of renal disease. The patient makes no progress under such conditions. When he has reached the point where other foods are allowed, still the greatest care must be used as to quantity.

The appetite for the C H O foods is great, and more will be taken than can be used. The oxidizing capacity of a healthy man being seven hundred and fifty grammes, about one hundred and thirty grammes of this should be nitrogenous food. The proportion of the latter must be far greater in the diet of consumptives, in order that there be a surplus, after supplying the waste, with which to build up the diseased tissues. If more than the required amount of the C H O foods is taken, the oxygen, uniting most readily with this class, oxidizes all of it first, till the supply of oxygen is exhausted and there is not enough left to carry the nitrogenous food through to complete oxidation, and, as a result, the body is deprived of just that kind of food it so greatly needs, while it has an excess of that for which it has little need, and which cannot contribute to the rebuilding of diseased tissues. The partly oxidized products in the form of uric acid, etc., remain to irritate the lungs and kidneys and to disturb the appetite and digestion.

The exclusive beef diet is to be kept up till the urine is clear and free and the appetite good, when a gradual enlargement of the diet along the line of whole meats, eggs, and bread, may be carefully entered upon. Fats and starches should be used carefully at first, till they are readily digested without acid fermentation. The cereals may be used when well cooked, but vegetables are best avoided. All desserts, sweets, made dishes, and fried foods should be avoided. Meats are best used freshly broiled or roasted.

The Excretions.—It will be seen from the foregoing how very important it is to watch the excretions during this process of feeding. The urine must be seen daily and its condition carefully noted. The stools should be examined microscopically for undigested food, the action of the liver and bowels stimulated by the proper laxatives, all the eliminations carefully attended to, and all errors of diet carefully guarded against. A regular and systematic washing out of the stomach is a valuable aid. It can be done either by drinking hot water and allowing it to pass down the alimentary canal, or by lavage with the stomach-tube. The former is to be preferred in most cases as it has the advantage of acting upon the liver and kidneys, and also of increasing the volume and fluidity of the blood, and thereby largely facilitating the elimination of the soluble effete matters. Lavage is more local in its effects. Either will improve the appetite and digestion.

Hygiene.—Another matter that is too commonly neglected is the care of the skin. Let us not forget that the skin is not a garment but an organ with important and vital functions to perform. .

The skin of a consumptive is always dry and indolent and unhealthy. Its circulation is poor and does not respond to the stimulus of cold, and the patient suffers from the lack of the protection which it should give. He shivers at every draught and "cannot bear the cold." The skin should be roused to do its work of elimination and of protecting the organs within. Daily sponge-baths, followed by vigorous rubbing of the whole surface will, in a short time, restore the normal tone of the capillary circulation, and the patient experiences a degree of comfort and safety perhaps never before known. He no longer shrinks from every draught, but has confidence in his ability to resist the cold. His skin reacts to every stimulating draught, and the blood, now abundant and rich, flows quickly to the surface, preventing all congestion of the internal organs, and changing what would have been a chilly sensation into a warm and comfortable glow. He no longer "catches cold" as he did, and is not as prone to the grippe, and if he does get it it goes lightly with him.

A healthy skin is of the greatest importance to the invalid. A weekly or semiweekly "tub," followed by oiling the whole body, contributes much to this end.

Exercise.—Too much care cannot be used in the matter of exercise in consumption. It must be carefully administered as the strength improves. Physical rest is the watchword during the active stage. A common error is to do too much under the impression that the more exercise and the deeper the respiration the more benefit. Bear in mind what changes occur must be physiological, and therefore slow. It is a mistake to push matters in this respect. Too much exercise induces overactivity of the lung, and is often the cause of active trouble. It should be taken cautiously, always within the limit of fatigue, and never just before or just after a meal. Pulmonary gymnastics are out of the question in this altitude. Sufficient activity and expansion of the lung is effected by the rarity of the air, and to exercise is to increase this activity to an extent that may be hurtful. Pulmonary exercise and physical exercise is what is wanted.

I feel sure that if some of the points briefly touched upon are more carefully observed, seventy-five per cent. of those who die here will be saved or largely benefited and restored to a much better condition of health.

Progress of Medical Science.

The Toxic Effects of Gallic Acid.—In a recent issue of the *New Zealand Medical Journal*, Dr. Thomas W. Bell contributes an interesting clinical note as to the possible poisonous effects of this remedy, which is regarded as harmless in anything like moderate quantities. A man, aged thirty-two, with internal hæmorrhoids, had a venous oozing with each passage of the bowels; various applications, including iron and cold water, had been used without any permanent benefit. One morning, just after an evacuation, he applied to the bleeding pile some ung. gallæ cum opio (B. P.). The piles were not painful and on their being replaced all discomfort ceased. After a little while he had for the first time in his life a slight attack of hay asthma, which was referred to the probable inhalation of some irritant dust. Three or four days later, after a second use of the ointment he had a similar asthmatic attack, followed by an urticaria lasting three or four hours, but no relation of cause and effect was thought to exist between the remedy and the subsequent outbreak. As the hemorrhage still persisted after each motion, Dr. Bell ordered a three-grain tannin suppository a short time before and after each movement of the bowels. The sequel is stated by Dr. Bell as follows: "In the afternoon, feeling quite well, he inserted a suppository. In about four minutes the symptoms of the asthma began to show. I watched the case throughout. First, there was pain and a tight feeling under the sternum, and a trouble in breathing; the breathing got quicker and labored, accompanied with wheezing and an occasional cough—until, in about half an hour from the time when the suppository was introduced, all he could do was to lie on the bed gasping and straining for breath, face flushed, hot, and perspiring, râles and rhonchi all over chest, and pain on coughing. With each cough a little pellet of mucus was expelled. This condition lasted for another half-hour, and then the pain and rapidity of breathing began to subside, but then the attack of urticaria commenced. Starting about the head and neck, it extended all over the body, and became especially marked about the feet. The irritation and itching was intense. Some of the wheals were from two to three inches in diameter. At the end of about four hours the

cough had stopped, the breathing had returned to normal, but the irritation of the skin continued in a less degree till next morning. The patient has never had any asthma, or anything approaching it, before or since, nor have any of his relatives ever had anything of the kind. Nor has he ever had urticaria or any skin eruption whatever." The physician was at a loss to account for these phenomena except as the effects of the gallic acid. No such result followed the use of various other remedies. None of the standard text-books attribute toxic qualities to gallic acid, either in the line of vaso-motor disturbance or that of skin eruption. Some peculiar idiosyncrasy seems to have existed in this patient.

Formation of a New Sphincter after Extirpation of the Rectum.—Dr. Willems has described a plan of preventing the fecal incontinence which so frequently occurs after removal of a portion of the rectum for malignant disease. The good results of simple separation of the fibres of the rectus muscle in gastrostomy have led him to believe that a similar advantage might be attained by fixing the cut edges of the remaining portion of rectum to a slit made in the gluteous maximus by forcible separation of its muscular fibres. The following are the steps of this procedure, which has hitherto been practised only on the cadaver: After removal of the lower part of the rectum, together with the sphincter, by the perineal operation, the body, if it has hitherto rested on one side, is now placed in the lithotomy position. If the rectum has not been divided very far above the anus, and its remaining portion can be readily drawn downward, a skin incision about two inches in length is made over the ischial tuberosity in an oblique direction upward and outward, so as to run parallel to the fibres of the gluteus muscle. A slit is next formed in this muscle about a finger's-breadth above its lower margin, by separating its bundles by means of a director or closed dissecting forceps. The extremity of the remaining portion of gut is finally drawn through this opening and stitched to the edges of the wound in the skin. When a considerable portion of the rectum has been removed and it is found impossible to drag down the gut margin as far as the ischial tuberosity, the author would endeavor to insert this end of the intestine at a higher part of the gluteus muscle and between the muscular bundles which arise from the margin of the sacrum. In such case the incision, which is made through skin and fasciæ, should be carried obliquely downward and outward from the right margin of the sacrum. The exposed muscular bundles having been separated, and also, if it be necessary, the sacro-sciatic ligaments divided, the end of the shortened gut should then, as in the former instance, be drawn through the slit and tied by sutures to the external wound.—*Centralblatt für Chirurgie.*

The Curative and Preventive Action of Mercury and Iodide of Potassium.—Dr. Mauriac holds that the two drugs most powerful in the treatment of syphilis do not realize the conditions essential to entitle them to be named as specifics, though they are incontestably superior to all other remedies which have been employed against syphilis. Their curative action is often wonderful, and can usually be implicitly relied upon when the drugs are given in accordance with the recognized clinical manifestations of the disease. In their preventive action, however, they are less satisfactory. This action is feeble, superficial, and transitory, since the outbreaks of the disease seem to be prevented not at all by the prophylactic treatment. There is only one condition under which this preventive action has proven satisfactory—that is, when administration of the specifics prevents hereditary transmission of the disease from the husband or wife free from apparent manifestations. Daily experience demonstrates that mercury neutralizes the latent infection of the spermatozoa of the sperm, the ovule, and the blood which occasions hereditary syphilis. This, again, however, seems to be transitory, since, after treatment and apparent cure, hereditary transmission may appear latent, and the parents themselves may be attacked by recurrences. It cannot be doubted that there is a tendency toward spontaneous cure in syphilis. Since well-directed treatment cannot injure the system, since it powerfully aids this tendency to spontaneous cure, the disease should never be abandoned to its spontaneous evolution. Whatever be the degree, form, tendency, or age of syphilis, it should always receive specific treatment. This is especially so when the disease is in its active state; medication should be directed not only against manifestations of the disease, but against the diathesis. Under these circumstances (the absence of symptoms) medication must be conducted somewhat by guesswork. Admitting that the syphilitic diathesis may be present, and admitting the value of the administration of specifics against this diathesis, the logical deduction would be to administer specifics during the entire period of life after syphilis is once acquired. This, however, is an unnecessary extreme, abandoned by its one-time most enthusiastic advocates. Mauriac believes that the best preventive results from the specifics are to be obtained by pushing their curative action as far as possible each time manifestations appear. The indications under these circumstances are clear and correct, and the dosing should always be full. In the intervals, when no external signs of syphilis are to be found, the mercury can be suspended until new developments require its administration. Mauriac believes that during the periods of latency the administration of a specific is without good effect, excepting as a means of preventing hereditary syphilis. Here mercury is incontestably the strongest guarantee against the chance of transmission of the disease.—*Therapeutic Gazette.*

Hepatic Venous Souffle.—Dr. Martini describes three cases of atrophic cirrhosis of the liver, accompanied by marked enlargement of the spleen, in each of which a continuous souffle, increasing during inspiration, could be heard in the sixth intercostal space about the right anterior axillary line (*The British Medical Journal*). In one case the souffle diminished after the patient had had hæmatemesis. Two of the cases ended fatally, but nothing was found which would obviously account for the peculiar souffle heard during life. The author is of opinion that this was due to a displacement of the ascending vena cava in consequence of the liver being pressed against it by the hypertrophied spleen and the ascitic fluid. The displaced cava would under such circumstances tend to become squeezed against the edge of the phrenic orifice of the diaphragm, below which it was, in fact, observed to have become widened. Under such circumstances the occurrence of a murmur might probably be due to the formation of a *veine fluide* at the site of the obstruction.

The Nerve Lesions of Leprosy.—Drs. Hallopeau and Jeanselme have published some observations on the multiple lesions affecting the peripheral nerves in leprosy. These lesions give rise to various forms of paralysis, anæsthesiæ, and to some amyotrophic conditions, which are especially remarkable both as regards their distribution and general character. It was chiefly in the limbs that these symptoms attained their maximum intensity; the extensors of the feet were especially affected and wasted rapidly. As regards the face, complete paralysis of the right facial nerve occurred within a few days, all the muscles supplied by it being affected; the right orbicularis muscle was implicated on each side, so that the eye could not be properly closed. Sensibility was abolished in the limbs in the regions around the elbows and knees, and it was perverted in the arms and thighs; thus the contact of a cold body produced the sensation of a hot one being applied. It was the same over the forehead. The nerves which supplied parts which had wasted had considerably increased in size.—*L'Union Médicale.*

It is Brutal to Relieve distress and then take a dollar—it ought to be charged, or be $10.

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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ARE AMERICAN WOMEN DETERIORATING?

IN the *North American Review*, Dr. Cyrus Edson, of this city, has stated that American women are deteriorating. They do not, he thinks, endure childbearing. Young women who are apparently strong, healthy, and active, marry, and have two or three or more children; in a few years their color is gone, they look old, they are nervous, fretful, easily fatigued, and have changed their freshness and youth for a premature age. They wander about in a gynecological Odyssey, seeking relief through operations which restore a tear in the perineum or cervix, or are curetted and electrified for a sub-involution, but, strangely enough, they do not get well.

Some such story as this is familiar to many of us; the question is, Does it represent a condition of affairs which is general? Two Chicago physicians have replied indignantly to the contrary. They have collected the histories of all the young families of their acquaintance and assert that in the vast majority the women are sound and healthy.

The question, however, is not to be settled so easily. We do not know how healthy the childbearing women of a generation or more ago were. Miss Catherine Beecher, writing in 1850, said they were a wretchedly feeble and valetudinarian class. As for to-day, only a very large number of observations can furnish a true answer to the inquiry. The statistics of the last census show a decided decrease in the birth-rate among Americans, and this is a rather serious indication of degeneracy. There is also a steadily increasing urban and decreasing rural population. This is not a healthful change for childbearing women. So that altogether it does not seem to us that the Chicago physicians have quite established their assertion that marriage nowadays makes more than it mars the health of American women. The problem is one of extreme importance, for upon it depends the future of our race. In this particular city it has been noted that the girls are larger and stronger than they used to be. In London the same is said to be true, but it is added that the men are not so vigorous. An observant Englishwoman in a recent interview states that American women are not so strong as the English, and she attributes this to the fact that mothers put their babies in boots (high shoes) instead of slippers with straps. The boots develop ankles that do not enjoy walking. This simple explanation of our physical inferiority is almost too good to be true.

ENDERMATIC USE OF GUAIACOL.

THE introduction of this remedy into therapeutics seems likely to be a great addition in several directions. As the essential element of creosote it has served well in tubercular affections, and is perhaps the most vaunted of all internal remedies for that class of maladies. Recently it has come to be used locally, and several of the recent French journals have contained quite remarkable statements as to its power when used in this manner, to reduce temperature.

In *L'Union Médicale* for July 11, 1893, are given the results of Robillard's experiments upon tubercular patients with fever. The amount of guaiacol used for each application was from one half to two grammes. Various bodily sites were made use of, varying in area from one to five decimetres square. It was found that with this dosage the temperature fell rapidly, in every case, from one to five degrees and remained low for several hours. The rapidity of action was greater than that of the quinine salts. It did not seem to make much difference over what area the application was made, arms, legs, chest, and back gave similar results. As might be expected, such a powerful effect has not been without its drawbacks. The patients have complained of a profuse sweating and a pronounced guaiacol taste. The urine has been increased in amount, but none of the remedy has been found therein. The foregoing facts prove beyond a doubt the existence of cutaneous absorption. Control experiments with harmless agents gave a negative result.

In *La Loire Médicale* of August 15th of the present year, we find still further allusions to this antithermic power of guaiacol. In an able article by Guinard, he gives credit to Sciolla as the originator of the endermatic use of the remedy. This latter experimenter placed varying quantities of the remedy upon the skin, and found rapid antipyretic changes to follow. This was true not alone in phthisical cases, but in pyrexias from all causes. Guinard alludes to the reports of Bard, Federici, and others, and states his surprise that, in view of the great resistance offered by the skin to the penetration of liquid or solid substances even of a fatty nature, an exception seemed to obtain in the case of guaiacol. He thought at first that the remedy must really have entered by the breath, in view of the rapidity with which its antithermic action was manifested. He assured himself of the truth of this fact by bathing with guaiacol the skin of a dog who, by means of a tracheal cannula *in situ* and connected with a long tube, breathed air which came from without the laboratory in which the experiment was made. In this case no trace of the remedy was found in the urine after two hours and three-quarters, during which time the temperature fell only one to two degrees. He argues therefore, that if none was found in the renal product none could have been absorbed through the skin. A control experiment had previously shown that the remedy, if inhaled, could penetrate through the respiratory channels into the system sufficiently, in the course of three hours, not to lower the temperature, but to appear slightly in the urine. While the results of these experiments were somewhat conflicting, the fact of the marked fall of temperature remained unexplained. Guinard was therefore led to search further for the cause of this very pronounced effect.

He advances the proposition that the effects of guaiacol upon the thermogenesis are probably the result of a selective action of this substance upon the peripheral nerve-endings. He found that two rabbits, one bathed with creosote and the other with a liquid preparation of mustard, showed practically the same fall of temperature under the same conditions of experimentation. A control experiment was made by bathing the hind limbs of two rabbits with guaiacol. In one the sciatic nerve had been cut four days before. Here the application caused no fall in temperature, while in the rabbit with nerve intact the same fall was observed as before. To establish the logic of the foregoing argument it was necessary to prove that guaiacol was irritant. Lepine had noticed that its application always caused considerable redness of the epidermis, but a purer product did not produce this redness. Guinard using pure guaiacol, generally found signs of local modification. In company with several other observers, he noticed that the temperature depression was greater if the region acted upon was covered with some light gauze like protective.

In this country, a recent brief note by Dr. J. Solis-Cohen (*Philadelphia Medical News*, September 30th) is the only mention of the method which has come to our notice. He employed it in two cases of phthisis. In one, a woman with a temperature of 102.4° F., thirty minims well rubbed into the skin over the pulmonary cavities, at 3 P.M., gave the following results: At 3.33, 99.3° F.; at 5 P.M., 97.4° F., when the patient was sweating considerably. The pulse was good and the skin warm. At 6.15 P.M., the patient was chilly and finger tips blue; at 6.35 P.M., temperature, 97.4° F., gradually rising to a little above normal. In this case it did not reach 102° again for several days. Similar trials gave like results both upon this and upon another patient.

From the foregoing observations it is evident that the febricide properties of guaiacol are more powerful than has generally been thought to be the case. The figures given in the various experiments suggest their own caution. The endermatic method is worth further trial, but the latter must be very cautiously made, and great care taken to see that collapse or other untoward symptoms do not follow.

A FRENCHMAN ON AMERICAN PROSTITUTION.

No Frenchman travels in America without making a more or less attentive study of the question of prostitution. The erotic feeling which dominates the life and literature and art of Paris makes the Parisian traveller feel that he must show some attention to the shady side of social life wherever he goes. So M. Marcel Baudouin, of Paris, after having shown to his countrymen that there was nothing of much interest in Chicago or the World's Fair, and after paying homage to the California Athletic Club, writes to *Le Progrès Médical* of "American Prostitution." He goes over the same old tales of the shameless openness of prostitution in our cities, of the lack of licensing and supervision, and ends with a very hard crack at New York, which he considers as "assuredly the most debauched city of the two Americas!" Such a statement will hurt the feelings of Chicago more than it will those of New York, for, as we understand the situation, Chicago's greatest pride, after the World's Fair, was in its immeasurable and unrivalled sinfulness. M. Baudouin adds the usual compliment of hypocrisy to our debauchery, and expresses in a general way his lament at the inferior condition of our public morals.

All this comes from a country in whose history is embalmed the infinite public rottenness of the Panama Canal. We are sorry Mr. Baudouin did not stop in New York long enough to see the work of our hospitals and colleges, rather than spending his time in the night displays of the Tenderloin district.

A HAY-FEVER CURE.

A TOUCH of hay fever produces feelings of human kinship to an extent not seen in other complaints. This we infer from the fact that the hay-fever patients of this country have formed an association, now twenty years old, for mutual condolence and help. We do not know of any other class of patients who are thus banded together in misery, though it might not be altogether useless if other similar organizations were established. The United States Hay-Fever Association publishes an annual report and offers prizes for the best essay on the subject of their pet malady. At the nineteenth annual meeting the prize was awarded to Dr. S. S. Bishop, of Chicago, and a copy of his paper is before us.

Dr. Bishop proposes a new theory and new treatment for hay fever. Adopting the suggestions and facts furnished by Dr. Alexander Haig, he asserts that the disease is of uric-acid origin, and that the paroxysms are brought on by the irritation of this acid, which gets into the blood in excess and causes the nerve-storms of sneezing, coughing, etc. The cure for an attack is to take ten to thirty drops of dilute sulphuric acid two or three times a day. The first dose should be taken early in the morning and should be largely diluted with water. In the intervals, or, more particularly, about forty days before an attack is expected, salicylate of soda and phosphate of sodium should be taken. A diet of milk, fruits, vegetables, butter, etc., should also be adopted.

Dr. Bishop does not say that uric acid is the only cause of hay fever, or that his treatment should exclude attention to nasal and other irritations, but by following it one causative factor that is often prominent, if not essential, is excluded.

Perineal Lithotomy in early childhood represents a safe operation and gives excellent results. A relatively enormous percentage of deaths in old age can be explained by the co-existence of grave complications about viscera (especially kidneys). Supra-pubic lithotomy does not offer any important advantages over the perineal operation. The mortality remains yet very high, even in children. Still, speaking generally, in the presence of stones measuring above two centimetres in diameter, the high section should be preferred, but in cases of smaller calculi perineal lithotomy should be performed. —LINDENBAUM.

Gonorrhœal Inflammation about Neck of Bladder.—Hourly doses of salicylate of soda up to ten grammes daily, when acute.—MEVNIER.

News of the Week.

A Hospital Boycotted.—The Charité Hospital of Berlin has been "boycotted" by the Social Democrats. An order has been issued by the party forbidding its members to go to the Charité, the reason alleged being that the syphilitic patients are treated with indignity.

A "Church" Saloon.—A saloon has been opened in this city under ecclesiastical auspices. That is to say, the proprietor has given a clergyman his bond to sell only pure whiskey and good beer, and not to sell to women, or minors, or drunken people.

Robbing Doctors' Offices.—Two men were recently caught who have been making a specialty of robbing doctors' offices. This is the first time we have ever heard of the New York police catching this class of sneak-thieves, and we are pleased to believe that the constabulary are waking up. If the New York police were a little more alive, doctors wouldn't have to put combination locks on their front doors, and chain their overcoats to the hat stand.

Cholera Therapeutics.—An enormous amount of rubbish seems to have been written regarding the treatment of cholera, since the epidemic struck Europe. Many of these ingenious measures have been tried in St. Petersburg during the past season. A correspondent of the *British Medical Journal* says: "The use of Cantani's hypodermic injections in the treatment of cholera has been now abandoned in almost all the St. Petersburg hospitals. They were found to be practically useless. In the Obuchovski Hospital intra-venous injections of saline solution are now being tried, but the benefit resulting from them appears to be as fleeting as it is, for the time, remarkable. All the physicians I have conversed with on this subject are agreed that heat, both external and internal, is the sheet anchor in the treatment of cholera. Very hot baths (both air and water baths) and hot rectal injections are of undoubted value—a statement that cannot be made unreservedly of any other remedial measure or drug, with the exception perhaps of stimulants, nervine and cardiac. Internal antiseptics of all sorts have been tried and found wanting by most observers, though at the 'Alexander Hospital, in memory of the Emancipation of the Serfs,' they are thought to be of some use."

India proposes to have a medical congress.

Died in the Discharge of Duty.—Three deaths have lately occurred among the younger members of the profession of Paris, in the performance of their medical duties, two from diphtheria and one from typhoid fever.

A Curious Omission.—Some surprise is manifested in the medical world that measles, whooping-cough, and erysipelas should be excluded from the list of infectious diseases drawn up by the Academy of Medicine, requiring notification and disinfection. These half-measures are condemned by the medical press, which considers that all contagious diseases should be declared, and this should be compulsory.

The Ohio State Asylum for Epilepsy.—Governor McKinley has declared open the new retreat for epileptics at Gallipolis. The trustees are ready to receive two hundred and fifty male patients, but they are not fully provided with the proper information to enable them to classify the applicants for admission. Dr. H. C. Rutter, who is the medical officer, may be addressed at the asylum at Gallipolis. The blank forms of application are in the custody of the probate court of each county, and those who seek the benefits of the new institution are desired to call upon the probate judge and fill out the regularly prepared papers.

Recovery of Damages for Miscarriage.—The Superior Court of New York City has ruled that when a married woman is so injured through the negligence of another person as to miscarry, her husband can recover damages for the loss of the child. In the case on trial the damage was assessed by the jury at $2,250.

Consumption Officially Declared a Communicable Disease in Michigan.—At its meeting of September 30th, the Michigan State Board of Health unanimously decided that consumption is a dangerous, communicable disease, and must be reported by physicians and householders to the several health boards.

A Medal Awarded to the Boston City Hospital.—A medal has been awarded to the Boston City Hospital for the completeness and excellence of its exhibit at the World's Fair.

The Death-rate in New York City last week was the lowest ever recorded, namely, 17.46 per 1,000.

Dispensary Abuses.—In perusing the discussion on the dispensary system in another column, it is impossible to resist the conviction that most of the dispensaries are badly managed, that there are too many of them for the real needs of the poor, and that the gratuitous services of the physicians are not properly appreciated. But is not this the old story? We are glad to see, however, that a good move has been made to have physicians members of the board of management.

Intestinal Obstruction in Children.—The announcement of this subject for discussion at a recent meeting of the Section on Pediatrics of the Academy of Medicine, drew one of the largest medical audiences which have been seen in the city during the season. The surgeons who discussed treatment of intussusception (the most common form of obstruction in children) favored early laparotomy, believing that the statistics would show a much larger percentage of recoveries if the surgeon were called and operated early. They admitted, however, the propriety of first trying pressure by water or gas during the first twenty-four hours. After that time gangrene was liable to exist and pressure might cause perforation. The general practitioners, on the other hand, seemed to have more confidence in treatment by pressure, and all who spoke gave preference to water over gas. The Davidson syringe was condemned. Use the siphon method, gradually elevating the reservoir above the patient, but not passing beyond a height of fifteen feet, which would cause a pressure on the gut of about six pounds to the square inch, the limit of safety in a child. To prevent water from escaping around the tube introduced into the rectum, use roller bandage.

Suggestions for the Improvement of the Naval Medical Service.—Surgeon-General Tryon makes the following important suggestions regarding the naval medical service. He first proposes to change the titles of the officers of the corps. The chief of the bureau he would

call Medical Director-General, thus leaving Surgeon-General exclusively an army title; the Medical Inspector would hereafter have the name of Fleet Surgeon; the Passed Assistant Surgeon—an awkward designation—would be Surgeon, while the present Surgeons would become Staff Surgeons; finally, the title of Assistant Surgeon he would make Surgeon Junior Grade, just as in the line there are Lieutenants and Lieutenants Junior Grade. A second point noted is that Passed Assistant Surgeons, after remaining in that grade for fifteen years, are promoted without either physical or professional examination to the grade of Surgeon, where they remain about as long before being examined to be made Medical Inspectors. This makes a consecutive service of perhaps twenty-five or thirty years without having their qualifications tested by examination since promotion from their status as Assistant Surgeons. The remedy is to commission Passed Assistant Surgeons on reaching their grade, and then to promote them to the grade above only after a regular physical and professional examination. Legislation for that purpose could easily be supplied by Congress. A third point suggested by the Surgeon-General is that, since medical officers must lose professionally during each cruise of three years at sea, a partial offset could be had by sending some of them as attachés to the legations of London, Paris, and Berlin, the chief medical centres of Europe. Besides getting opportunities for study there, they might make valuable reports upon all matters connected with public health, and so be of much service while absent from routine duties. Finally, the Surgeon-General shows the need of repairing and enlarging the naval hospital at Brooklyn. It is overcrowded; it furnishes less than one-third as much air-space per man in its wards as well-equipped modern hospitals give; it has bad floors, ceilings, plumbing, and defective ventilation and heating; in short, it should be renovated as well as extended throughout.

A New East Side Hospital was opened recently at East Eighty-sixth Street. It is a Maternity Hospital under Catholic auspices, and will have accommodation for one hundred and thirty patients. The hospital will cost about $110,000. Dr. T. J. McGillicuddy is the attending physician.

Caffein Sulphate is recommended by Drs. Heinz and Liebreich as a diuretic. It acts somewhat like diuretin, but the dose is smaller.

A Memorial is to be erected to the late Surgeon-Major Park.

Professor Virchow celebrated his fiftieth doctorate jubilee on October 21st. The *Berlin. klinische Wochenschrift* devotes a special number to the event. Virchow was so recently celebrated on the occasion of his visit to London, that a return to the subject is just now hardly necessary. Professor Virchow deserves all his honors, and may he live long enough to enjoy many more.

Medical Fees in Russia.—The Czar of Russia recently issued a ukase on medical fees which divides the population into three separate classes, the first one composed of the nobles, the capitalists, the landowners, the manufacturers, the bankers, the principal merchants, and members of the first six classes of the civil, military, and naval service. The second class comprises lawyers, parsons, and professional men of one kind and another, as well as government employees of the seventh and eighth grades; while class number three is of the balance of the population. For patients of the first class the fee is limited under severe penalties to $2.75 for each consultation; for those of the second class to $1.65; while the cost of medical advice to the masses is limited to 19 cents. If the fee were proportioned to incomes, the first class would pay $27; the second, $16; while the 19 cent fee would remain.—*Medical Standard.*

A New Form of Ambulance.—Among the novelties in the way of ambulances, is an ambulance car that is to be introduced upon the electric street-car system of St. Louis. It seems that the health commissioner, Dr. George Homan, has devised a plan that the car company are giving him cordial support to perfect. It consists of an emergency hospital on wheels, with the springs so constructed as to prevent severe jars to the occupants of the car.

Washington, which has already four medical colleges, is now favored with a fifth, viz., the National Homœopathic Medical College.

Professor Potain has been elected successor to the late Professor Charcot, in the Académie des Sciences.

Emergency Hospital at the World's Fair.—There were treated at the World's Fair Emergency Hospital, 18,500 cases, and there were twenty-three deaths at the institution.

University of Georgia.—The Medical Department of the University of Georgia is against the abolishment of the Board of Medical Examiners by the State Legislature, and makes an earnest appeal that it be re established. The professors of the Medical College adopted the following resolutions:

Whereas, It is an indisputable fact that since the Board of Medical Examiners of Georgia was abolished by act of the Legislature, Georgia has been a veritable paradise for quacks who have been driven out of other States;

Resolved, That the Faculty of the Medical Department of the University of Georgia heartily indorses the principal features of the bill as printed in the *Atlanta Medical and Surgical Journal*, December, 1893, pages 612, 613, and 614, captioned, "A Bill to be Entitled an Act to Establish a Board of Medical Examiners for the State of Georgia, and to Protect the People from Illegal and Unqualified Practitioners of Medicine," which bill was passed by the Senate of Georgia at its last session.

Resolved, That a committee of three members of this Faculty be appointed and charged with the duty of appearing before the Legislature of Georgia, and using all honorable means to secure the enactment of said bill.

Resolved, That this Faculty, through the said committee, requests the Senator from this Senatorial district, and the Representatives of the Lower House from this county, to exert themselves to secure the passage of said bill.

Resolved, That this College points with pride to the fact that it was the first medical school in America to insist upon the necessity of higher medical education in the colleges of the United States. This fact is shown first, by the record that in 1825 the first board of State medical examiners was organized at the request of the board of trustees of this college; second, in the early history o-

this college the term was six months. In 1845 the faculty of this college attempted to have all medical colleges in America require of their students attendance on two full courses of six months each, as a requisite to graduation. This medical school only receded from its then advanced position, because forced to do so by refusal of all other colleges to join in the movement, no other college having expressed a willingness to join in the crusade against the disgraceful practice of yearly graduating large numbers of ignorant and unqualified medical students.

Resolved, That it is, in the opinion of this faculty, a blot upon the escutcheon of the State, to permit Georgia to be without a board of medical examiners to protect her citizens against medical pretenders.

Professor Charcot's Successor at the Salpêtrière.—Insurmountable difficulties appear to have arisen in the choice of a physician deemed worthy to take the late Dr. Charcot's place at the famous institution which his neurological researches have made famous all over the world; a compromise has accordingly been arrived at in the nomination of Dr. Brissaud for the period of one year, at the end of which term it will be decided whether he is to continue to hold the office.

At the Meeting of the International Medical Congress which is to be held at Rome next April, it seems likely that a proposition will be made to hold the twelfth meeting of the Congress in the capital, or some considerable town, of Russia.

Suit for Malpractice.—Dr. Marcus E. Babcock, of Branchport, N. Y., is to be congratulated on winning the suit of malpractice brought against him in April, 1892, by John Bell, of Branchport. Bell, in June, 1891, severely injured his right hand, breaking and partly dislocating the second joint of the right little finger. He also claimed to have dislocated the third joint of the same finger. Dr. Babcock treated the hand seven weeks. In the fall of 1891, it appeared that the third or knuckle-joint of the same finger was so dislocated that it would not remain in place, and causing the finger to seriously interfere with the prosecution of his trade and producing great suffering. In April following, he brought an action in the Supreme Court against the doctor to recover $1,000 damages, claiming that the third joint was dislocated when the second was, and that the doctor failed to discover and properly reduce and treat the dislocation. The case was on the calendar and finally referred to Mr. William H. Nichols, of Bath, as referee. The action was stubbornly fought on both sides. On August 5th, the learned referee made his decision, exonerating and sustaining the doctor, and dismissing Bell's complaint with costs.

Dr. Charles Wesley Stanley, who died in this city on October 26th, was born in Conway, N. H., on May 28, 1828. He received his early education at the Oneida Institute, and was graduated in 1866 from the Medical Department of the University of New York. In 1870 he removed to Chicago, where for over twenty years he was actively engaged in the practice of his profession. Dr. Stanley was quiet and retiring in disposition, and a devoted student. As a physician he was capable and sympathetic, and by his kindly nature he endeared himself to all with whom he came in contact. He was married in 1869 to Miss Harriet Armstrong, who survives him.

Medical Society of the University of Maryland.—At a meeting held for the purpose, at the University of Maryland, Baltimore, the "Medical Society of the University of Maryland" was organized with the following officers: *President*, Dr. J. J. Chisolm; *Vice-President*, Dr. C. W. Mitchell; *Secretary*, Dr. W. B. Canfield; *Executive Committee*, Drs. J. E. Michael, W. B. Platt, and J. M. Hundley. The society will meet on the first Tuesday of each month, and will be composed of the faculty, the adjunct faculty, members of the teaching and hospital staffs, and graduates of the University.

Malaria Prevalent in Denver for the First Time.—County Physician Dunlin, of Denver, says there are several hundred cases of genuine malaria in Denver now, for the first time in the history of that city. The chills and fever are identical with the Illinois variety, but there is no shaking, it taking more the form of dumb ague.

Beri Beri in Philadelphia.—The steamship Lenark, Captain W. B. Cross, from Java, via Port Saïd, Algiers, and Gibraltar, arrived at Philadelphia November 3d, with her crew sick of beri beri. Quarantine physician Dr. Henry C. Boenning writes that, "there are eight cases of beri beri in our hospital and thirty-one suspects in the barracks, held for observation. The cases are well marked." Fifty Hindoos and several Arabs composed the crew. Mohammedans are mutton eaters. The cargo was sugar.

The State Medical Society of Maryland will hold its semi-annual meeting at Annapolis, Md., Tuesday and Wednesday, November 21st and 22d. There is a prospect of a full and interesting meeting.

Reviews and Notices of Books.

RINGWORM. Its Constitutional Nature and Cure. By J. COMPTON BURNETT, M.D. Philadelphia: Boericke & Tafel.

THAT ringworm is due to a specific fungus is one of the certainties of practical medicine. The author makes this statement, and then through one hundred and twenty pages tries to prove that it should be treated by internal remedies. Throughout there comes occasionally to the surface the underlying idea that there is close relationship between tuberculosis and ringworm. So far as the opinion is upheld that the parasite may only flourish on soil suitably prepared for it by preceding constitutional disease, we have no serious criticisms to oppose. We are far, however, from believing that the author has proven his case.

DECIPHERMENT OF BLURRED FINGER-PRINTS. By FRANCIS GALTON, F.R.S., etc. Pp. 18, with 16 plates. London and New York: Macmillan & Co. 1893.

THIS monograph is a supplementary chapter to the author's more elaborate work on "Finger prints." The whole matter is of medico-legal importance, with reference to the identification of criminals by comparison of registered prints made as described. The conventional objections to this method have always been, first, that the ordinary official would not take the prints with sufficient sharpness to have them of any use; and, secondly, that no jury would ever convict a man on finger-print evidence. The author has had the opportunity of comparing prints made by the same persons at intervals of fourteen years. From the evidence thus presented he endeavors to reply to the objections above stated. The well executed plates illustrate his text in a graphic manner. The work is of great interest.

Society Reports.

AMERICAN ORTHOPEDIC ASSOCIATION.

Seventh Annual Meeting, Held at St. Louis, September 19, 20, and 21, 1893.

President's Annual Address—The Embodiment of an Idea.—Dr. A. J. Steele, the President of the Association, said that each advance in orthopedics first existed only as an idea in the mind of man, to finally become embodied in a perfected operation or mechanical device. He dwelt particularly upon the importance of subjecting each new device or plan of treatment to a thorough and extended test before rushing into print, and pointed out the time lost to the surgeon and the harm done to the patient by the publication of an ill-digested idea and unproven plans of treatment. Each member was urged to contribute his share of inventions and experience, that the whole might be a credit to the specialty.

Some of the Uses of Continued Extension.—Dr. Henry G. Davis, of Everett, Mass., communicated a paper with the above title, which was read by the Secretary. The author reviewed his early work in the use of extension, and pointed out its usefulness in the treatment of all diseases of the joints; for the reduction of long-standing dislocations; for old cases of supposed anchylosis; for treatment of fractures of the neck of the femur; for elongating the true skin to supply the place of the cicatrix of a burn; for enlarging the cavity of the chest; for a trying fracture of the patella; for the reduction of spinal kyphosis of the neck accompanied by paralysis; and as a means for preventing shortenings in all chronic joint diseases.

Cases of Osteo-sarcoma Simulating Tubercular Hip Disease.—Dr. A. J. Jillette, of St. Paul, reported several cases, and pointed out the difficulty in differential diagnosis in this class and hip disease.

The Double-lever Stretching Apparatus for Club-foot.—Dr. T. Halstead Myers presented through the President a paper describing his apparatus. The apparatus is a modification of the Thomas osteoclast, the handles being so arranged as to hinge at the middle post, and the upright posts arranged to slide upon the handles and lock with a thumb screw so that a single handle can be used, somewhat after the manner of the Thomas club-foot wrench.

The Treatment of Lateral Curvature by Means of Pressure Correction and Gymnastics.—Dr. L. A. Weigel, of Rochester, read a paper with the above title, illustrated by a large number of lantern-slides. Dr. Weigel treats lateral curvature by means of a compression apparatus developed on the principle of that used by Drs. Bradford, of Boston, Hoffa, of Wurzburg, and Shede, of Hamburg, and supplements by a removable paper corset fastened with elastic lacings, and by exercise. Up to the present time Dr. Weigel has not treated these cases by the permanent plaster jacket applied to the patient while corrected by the pressure force, but he has demonstrated that even in very bad cases the bony deformity can not only be temporarily effaced by the pressure, but that in many cases the opposite deformity can be produced.

Correct Form and Expression, and Incidentally One Case of Lateral Curvature.—Dr. O. A. Wall, of St. Louis, by invitation, lectured upon the above subject, and illustrated his remarks by a large number of lantern-slides. He pointed out the facts that girls are constantly trained to stand with the weight resting upon one foot or the other, and constantly cautioned not to stand awkwardly erect. Standing with the weight resting upon one foot causes a temporary lateral deviation of the spine, and this was believed by the speaker in some cases to form the starting-point of a permanent lateral curvature.

The Mental Condition of the Patient as an Element in the Treatment of Joint Disease.—Dr. Ansel G. Cook, of Hartford, Conn., read a paper with the above title, and urged upon the Association the importance of a cheerful and happy frame of mind as an element in the cure of all chronic surgical affections. Special reference was made to the importance of an out-door life, and pleasant surroundings, and healthful occupation of the mind, and the author believed that carious bone would heal, and long-standing tubercular sinuses would close rapidly, when the patient was given his liberty, after the healing process had remained obstinately inactive for months during confinement in a hospital ward.

A Case of Fragilitis Ossium.—Dr. Wallace Blanchard, of Chicago, reported a case of a young woman, aged twenty-seven. At birth she was believed to be a healthy baby, but during the second month of life she suffered a fracture of the left femur, at or near the neck, and demonstrated the brittleness of her osseous system over twenty years with astonishing frequency. The case was first reported by Dr. Blanchard in 1875, at which time the following fractures had occurred: Right arm, 3; right forearm, 4; left forearm, 3; right thigh, 2; left thigh, 3; right leg, 14; left leg, 11; total, 40. There was also evidence at this time of there having been a transverse fracture of the sternum between the fourth and fifth ribs. The mother of this girl has become so skilled in the treatment of these fractures that the surgeon has not always been called to attend her, but in so far as can be learned there has occurred, up to the present time, over seventy-two accidents, including at least one hundred and sixteen fractures of the long bones. In these fractures there is but slight evidence of laceration and contusion, such as occur in fractures in a healthy subject, as well as the inflammation and congestion that usually accompany it; consequently this patient has suffered comparatively little pain. The process of union has been tedious in the extreme, soft union only being present on the removal of the dressings at the end of the seventh or eighth week, and two or three years being usually required to bring the union to any considerable firmness.

A New Traction Mechanism for Hip splints.—Dr. L. A. Weigel, of Rochester, N. Y., exhibited a hip-splint with a traction mechanism, which consisted of a coarse screw which telescoped into the shaft of the splint, this shaft being constructed of steel tubing. For the purpose of preventing the screw from rotating within this tubing a feather is braced in, which works in a groove cut in the screw. Traction is obtained by running the screw out by turning a milled nut. When a desired amount of traction is obtained this nut is firmly held in position by a lock-nut, which prevents all possibility of the screw going back from its position by concussion in walking, or other means.

The Question of Excision of the Hip-joint for Tubercular Disease, with Results of the Operation.—Dr. Harry M. Sherman, of San Francisco, read a paper with the above title, of which the following is a summary:

Not Submitted to Operation.

Perfect recoveries	7
Imperfect "	10
Dead	4
Passed from observation	40
Under treatment	21
	— 82

Submitted to Operation.

Traced	32
Not traced	6
Dead	13
Under treatment	13
	— 64
Total number of cases	146

Longest time from operation to examination	8 years.
Shortest " " " " "	1 year.
Average " " " " "	2⅜ years.

Case.	Age at time of operation.	Time from operation to examination.	Shortening.	Extension.	Flexion.	Abduction.	Progression.	Limp.	Atrophy of thigh.	Atrophy of calf.
	Years.	Years.	Inches.						Inches.	Inches.
1	4	8	2¾	180°	130°	30°	Nearly equal.	Bad.	2½	1
2	7	7	2	160°	90°	0°	Uses one crutch.	....	....	....
3	4	6	1⅞	180°	90°	30°	" " "	None.	⅞	¾
4	8	5	1⅞	180°	100°	10°	Equal.	Medium.	3¾	2¾
5	3	5	*	...	....	...		Slight.	....	....
6	16	5	....	145°	90°	....	Uses crutches.		2¾	2¾
7	6	4½	1	180°	120°	45°	Equal.	Slight.	1½	1½
8	5⅓	3¾	2½	180°	130°	30°	Nearly equal.	Bad.	1½	1½
9	17	3½	3½	180°	130°	25°	" "	Slight.	2½	1¾
10	6¾	3½	1⅝	180°	100°	25°	" "	"	1¾	⅞
11	8	3	⅞	180°	130°	30°	" "	"	....	....
12	4	3	1⅓	180°	145°	60°	Two-third step.	Medium.	½	¼
13	4	2½	½ shorter.	180°	65°	15°	Right hip.		....	....
14	4⅓	2	....	180°	60°	26°	Left hip.		....	....
15	15⅚	2⅛	3½	180°	90°	....	Uses cane.	Bad.	....	....
16	10	2⅓	3¼	180°	120°	35°	Equal.	Slight.	1	1⅛
17	7	2⅛	1⅝	140°	120°	10°	Two-third step.	Bad.	⅞	¾
18	13	2¼	1¾	180°	145°	28°	Nearly equal.	Medium.	1⅞	¾
19	7	2	2¾	129°	96°	....	Two-third step.	"	2¾	1¾
20	15	2	3½	160°	100°	30°	Nearly equal.	"	4	3
21	5⅛	1⅚	1	180°	110°	28°	Uses one crutch.		⅞	⅝
22	14	2⅓	3⅞	180°	130°	35°	Nearly equal.	Slight.	4½	⅞
23	6	2	1¾	180°	120°	25°	" "	"	1½	1½
24	4	1⅝	1½	180°	130°	30°	Equal.	"	1	⅝
25	4¼	1⅔	1½	160°	100°	....	Just off crutches.	"	1¾	¾
26	5⅓	1½	1⅓	180°	150°	45°	Nearly equal.	"	1	⅞
27	7	1½	2	180°	120°	30°	" "	"	1⅞	¾
28	8	1½	1⅓	180°	130°	30°	Equal.	"		
29	4⅓	1½	1	180°	100°	10°	Still on crutches.		1	⅝
30	4½	1½	....	180°	30°	35°	Left hip.		....	....
31	4⅞	1¾	½ shorter.	180°	80°	20°	Right hip.		....	....
32	26⅚	1⅓	1½	180°	90°	35°	Two-third step.	"	1	¾
33	8⅚	1⅙	2½	180°	103°	40°	Equal.	"	1⅛	⅞
34	10	1	2⅛	180°	43°	...	Nearly equal.	Bad.	¾	¾

* Neighbors report him in splendid health; able to walk and run like other boys.

In 34 Operative Cases:

Average shortening	1.98 inch.
" extension	174°
" flexion	112°
" abduction	29°

In 10 Non-operative Imperfect Recoveries:

Average shortening	1.83 inch.
" extension	145°
" flexion	67°
Abduction, 2 cases	Slight.
Abduction, 3 cases	Rigid 10 to 22°

Progression—Operative Cases:

Affected equal to unaffected limb	6 cases.
" nearly equal to " "	12 "
" ¾ of progress of " "	4 "
Limbs not available for this measurement	12 "

Progression—Non-operative Cases:

Limited in every case.

Limp—Operative Cases:

None in	1 case (error).
Slight in	14 "
Medium in	5 "
Bad in	5 "

Limp—Non-operative Cases:

Bad in every case.

Etiology of the Deformities of Knee-joint Disease.—Dr. A. M. Phelps, of New York, in place of his formal paper with the above title, made some remarks on the subject illustrated by blackboard drawings. The principle of his experiments is the same as that which he applied to the deformities of hip disease, published in these columns some time since. He showed that the extensor muscle group is stronger than the flexor muscle group, when the limb is straight at the knee, but in the case of tubercular disease in either the femur or tibia, the patient voluntarily flexes the leg on the thigh to some degree to relieve the pressure upon the tender spot. Now, when the leg becomes flexed, the extensors are placed at a disadvantage, and the flexors at an advantage, and they become the stronger of the two. This results in the flexion deformity which is always met with in cases of knee-joint disease, and the subluxation which is found present in very many.

The History of the Treatment of Tumor Albus of the Knee.—Dr. J. D. Griffith, of Kansas City, read an elaborate historical and statistical paper with the above title. He reviewed very completely the literature of the subject, and gave statistics of various plans of treatment, referring especially to excision of the joint, obtained from records of the Surgeon-General's office in Washington, statistics obtained from a large number of letters received from American surgeons, detailing the number of cases treated, the means of treatment employed, and the results. He went on to discuss the various medicinal and mechanical remedies employed, but offered no new suggestions for the treatment of the disease, except a further plea for the administration of guiacol.

The Present Form of the Thomas Knee-splint.—Dr. John Ridlon, of Chicago, exhibited two splints and a cutting appliance for the transformation of one splint into the other, and made some remarks on the subject. He said that the form of Thomas knee-splint ending in a patten at the bottom, which is in pretty general use, had not been used by Mr. Thomas for some time prior to his death. The speaker had not used it for some three years, because, in his opinion, it gave less effective immobilization than the caliper form of splint. In the splint with the patten ending, the foot and leg dangles and not only tends to move from front to back, and from side to side, but to also rotate. He urged the use of the bed form of splint, which extends far enough beyond the foot to prevent the patient from walking, terminating in a loop which can be utilized to fasten the straps from adhesive plaster in those cases where traction is demanded. Patients should be kept recumbent in this splint until all deformity has been corrected, and all pain is gone, and some considerable advance made toward convalescence, then with the cutting appliance the loop end of the splint is removed, and the cut ends bent toward each other to form the caliper splint, and inserted into a tube in the heel of the shoe. Care must be taken that the ends of the splint be bent at such a point that, when applied to the limb, the heel of the foot cannot reach the sole of the shoe, that all concussion may be saved from the joint in walking. The splint, fastened as it is to the shoe, effectually protects the joint from any rotation of the limb.

Exhibition of a New Knee-splint, its Action and Advantages.—Dr. A. E. Hoadley, of Chicago, presented a new splint, consisting of two perforated metal troughs, joined by one T-shaped and two straight slotted steel bands, which locked by a series of thumb-screws, and made it possible to place the metal troughs at any

desired angle or relation to each other, and securely fastened in such position.

A Simple and Effective Knee-splint.—Dr. Wallace Blanchard, of Chicago, exhibited a knee-splint constructed of two pieces of sole leather moulded upon a plaster cast of the limb to an accurate fit and laced in the front, the two being joined posteriorly by a strong bar of soft iron. To the top of the thigh-piece and the bottom of the leg-piece, both on the inner and outer sides of the limb, buckles are attached as a means for obtaining traction. The leather pieces are secured to the limb by lacing in front. The iron bar posteriorly can be bent to fit any angle of deformity, and straightened as the deformity is reduced during the subsidence of the inflammatory process.

Bone Operations for the Correction of Club-foot—Based on an Analysis of 341 Operations by 108 Operators.—Dr. H. Augustus Wilson, of Philadelphia, Pa., read a paper upon the above subject. The mortality was one and four-tenths per cent. Death was caused as follows: Three from septicæmia, 1 from diarrhœa, and 1 from septicæmia following amputation which was done for unavoidable hemorrhage after a bone operation. In addition, correspondence elicited two other causes not included in table—one where was suppuration with subsequent amputation and death, and another where amputation was required, and death. Gangrene occurred in 1 case; suppuration occurred 21 times, or six per cent. In 41 cases the age was not stated. The earliest age at which bone operation was performed was two months. Seven (two and one-half per cent.) were operated upon prior to the age of one year; 16 (five and one-third per cent.) prior to two years; 81 (twenty-seven per cent.) prior to six years; 165 (fifty-five per cent.) prior to ten years. Between the ages of six and eighteen 174 (fifty-eight per cent.) cases were operated upon. The oldest patient was forty-seven.

In 123 cases, or thirty-six per cent., the astragalus was the only bone removed; in 190 cases, or fifty-five per cent., the astragalus was removed together with other and surrounding bones. The greatest amount of bone removed was when, in addition to Phelps's operation, the astragalus, cuboid, third cuneiform, scaphoid, anterior of os calcis, and the malleolus were removed.

In one other case there was an osteoplastic resection after Vlarmiroff Mikulicz. Tarsectomy, without describing extent, was performed eighteen times. A wedge of tarsus was removed sixty-one times. In 20 cases Phelps's operation was done, in 13 of which more or less extensive bone removal took place.

With comparatively few exceptions braces were required after operation. On the whole, the study of these 341 cases would indicate that in a very large number better functional results, as well as a more natural-appearing foot, could have been obtained by recourse to soft structure section and properly constructed mechanical appliances.

Cases suitable for bone excision are becoming more and more rare as the importance of early treatment, persistently maintained, is becoming more thoroughly appreciated.

The Cause of Flat-foot.—Dr. Newton M. Schaefer, of New York, read a paper in which it was claimed that many cases of flat-foot were solely due to a shortening of the gastrocnemius muscle. The shortened muscle was pulled by the heel, and in so doing not only stretched the plantar tissues but actually tipped downward the tarsal joint. In such cases the remedy consisted in elongating the active muscle by a stretching apparatus.

Exhibition of a Paper Corset, also an Apparatus for Recording in Lateral Curvature.—Dr. L. A. Weigel, of Rochester, exhibited a spinal corset constructed of alternate layers of linen and the kind of matrix paper used in the stereotyping process. The construction of the jacket is much the same as Waltuch's wood corset, being made from a plaster cast. The corset is laced in front with elastic lacings.

The apparatus for recording the rotation in lateral curvature consisted of a board upon which are fastened two parallel rods, upon which slides a third rod set at right angles to the first two. At the end of this third rod is attached a small wheel playing around a peripheral axis instead of a central axis. Nearing the other end of the rod a pencil is attached which traces a line upon the paper placed upon the board as the wheel is made to follow the outline of a cross-section of the patient's thorax.

An aluminium corset hinged at the back was shown by Dr. Phelps.

Does Traction Distract in Hip Disease?—Dr. E. H. Bradford, of Boston, said that although there is a general opinion that some advantage can be expected from traction, and in many places traction is employed, yet many deny that any benefit is to be expected from it, and a few regard it as almost injurious. Pathological evidence is of the first importance in an inquiry of this sort, and the pathological finding is that in all mechanical inflammatory processes at the hip joint the head of the femur is displaced upward and backward toward the upper and posterior part of the acetabulum. This can be seen on examining every pathological specimen of hip disease. It is clear that if a force in hip disease can be applied counteracting the backward and upward pressure, it would be of therapeutic benefit, first, in relieving the amount of distraction of the bone from increase and pressure; and second, in checking the inevitable deformity following the cure of hip disease.

To overcome this upward and backward force there should be a force in the opposite direction sufficient to counteract the increased muscular spasm, and also to actually distract, that the inflamed bones may not be crowded together, and that the cicatrization of the granulations and diseased tissues may take place uninterrupted by the friction and pressure of contiguous portions of inflamed bone pressed together. An articular bone surface relieved from pressure heals readily, as is seen in cases of amputation of the hip where a carious acetabulum readily heals.

These above-mentioned facts would readily be accepted beyond dispute, but the bone of contention would be found furnished when the statement is made that in hip disease a diminution in inter-articular pressure can be practically brought about by mechanical means, and to an extent which is not only practicable but also beneficial. The questions as discussed were not complicated by consideration of the advantages of fixation in hip disease, but the inquiry was limited to the simple question—Does traction distract; and if so, under what circumstance can distraction take place?

The experiments and observations made by several observers on cadavers and on living persons, prove without the possibility of a doubt that traction properly applied can and does distract the diseased hip-joint in the inflammatory stage, provided traction is applied with the limb in a slightly flexed position.

It is also found that lateral traction aids in distraction, that lateral traction alone is not as effective as lateral traction and horizontal traction combined, that the check to traction are the muscles and the ligaments, particularly the ileo-femoral ligament, that in the stage of hip-disease where cicatrization has taken place traction does not distract.

The Manual Treatment of Bow-legs and Knock-knees.—Dr. Samuel Ketch, of New York, read a paper upon the above subject, showing the excellent results which might be expected from constant and faithful attention to these deformities by stretching alone. He advises against trusting this work to the mother, and urges for the child to be brought to the surgeon three times a day.

A Surgical Cot.—Dr. Weigel presented for Dr. John Schapp, of Brooklyn, N. Y., a cot developed from the familiar canvas-covered frame, with provision for supporting it at any convenient height or incline, and for the application of adjustable pressure to any part of the spine, traction to the spine or to a limb, and for suspend-

ing a limb. It is designed to maintain an uninterrupted recumbency so that the parts under treatment remain unchanged, or subject to only such change as the surgeon may determine. A hole, long and narrow, is provided for urination and defecation. This hole is closed by a flap secured by stout straps. Padded straps are sewed to the canvas to buckle around the shoulders. A pelvic belt, laced on and provided with two buckles, is used to strap the patient's pelvis to the cot, and also to make some counter-traction. Traction is applied to the head by means of a head-piece, the cord from which passes several times around a wooden drum to the weight. By means of a parasol and rubber-tired wheels it is converted into a perambulator.

Election of Officers. — The following officers were elected to serve for the ensuing year: *President*, Dr. A. M. Phelps, of New York; *First Vice President*, Dr. H. Augustus Wilson, of Philadelphia; *Second Vice-President*, Dr. Harry M. Sherman, of San Francisco; *Treasurer*, Dr. E. G. Brackett, of Boston; *Secretary*, Dr. John Ridlon, of 103 State Street, Chicago.

AMERICAN PUBLIC HEALTH ASSOCIATION IN CONJUNCTION WITH THE INTERNATIONAL CONGRESS OF PUBLIC HEALTH.

Twenty-first Annual Meeting, Held in Chicago, Ill., October 10, 11, 12, 13, and 14, 1893.

(Continued from p. 570.)

Second Day, Wednesday, October 11th—Evening Session.

Pathogenic Bacteria. — At this session Dr. George M. Sternberg, Surgeon-General of the United States Army, delivered a stereopticon lecture on "Pathogenic Bacteria." Slides of the typhoid bacillus, the bacillus of anthrax, of tuberculosis, of glanders, of tetanus, of influenza, of hog cholera, etc., were shown.

On motion of Dr. A. R. Reynolds, of Chicago, a vote of thanks was extended to Dr. Sternberg for his entertaining lecture.

Third Day, Thursday, October 12th—Morning Session.

Tuberculosis and the Food-supply.—The first paper read was by Dr. D. E. Salmon, Chief of the Bureau of Animal Industry, with the above title. The author assumed without argument, as already established by scientific investigation, that tuberculosis is a parasitic disease, that it is caused by the multiplication of a specific micro-organism in the tissues of the animal body, and by no other means. Of the two methods by which the disease is contracted with men, as well as with animals, it may be admitted that the most frequent, and therefore the most important, is the inhalation of the micro-organisms suspended in the inspired air. The speaker had no means of estimating the proportion of cases of tuberculosis which arise from infected food, but he was prepared to admit that tuberculosis of the abdominal organs and tubercular meningitis, particularly of children, were generally caused in this way. The author then considered infection through the milk-supply and infection through the meat-supply. Tuberculosis is one of the most common diseases of milch cows. It exists in many dairies, and may affect fifty, seventy-five, or one hundred per cent. of the animals in large herds. We do not know the average proportion of cows affected in this country, but in the dairies around our large cities from three to five per cent. have been affected when the diagnosis was made by the ordinary methods of examination. In the United States we have no statistics of the results of the tuberculin test, except with herds known to be tuberculous. Fortunately the milk from all tuberculous cows does not contain the bacilli. When there are tubercles in the udder, however, the milk may contain immense numbers of these germs, and this is particularly the case if the tubercular mass softens and its contents escape into the milk-ducts. The milk from cows so affected must be considered an extremely dangerous article of food.

The prevalence of tuberculosis in dairy cows can be lessened, and the danger from infected milk diminished, by a careful and periodical inspection of the herds from which the milk supply is obtained. This inspection must consist not only of a physical examination, but must also include the tuberculin test. There must in addition be some means provided for securing the destruction of animals found to be tuberculous.

Syphilitic Infection as a Vehicle of the Communication of Tuberculosis, by Dr. Manuel Carmona y Valle, of Mexico. The author of this paper cited the history of a case demonstrating the possible association of the syphilitic virus with the pathogenic agent of tuberculosis, and the possibility of transmission not only of the syphilis, but of the tuberculosis also. He had found in the ulcerations of the throat both characters.

The Influence of Habitations in the Propagation of Tuberculosis, by Dr. Manuel Gutierrez, of Mexico. Pulmonary tuberculosis is more frequently observed in the United States than in the republic of Mexico. The statistical records give a proportion of from one hundred and eighteen to one hundred and twenty per thousand in America, while in sunny Mexico it does not reach the number of sixty to every thousand. One of the causes which contribute to produce so notable a difference in the propagation of so dangerous a disease is the difference in the elevation in both countries, because we know that dry air is not a vehicle for the multiplication and generation of the bacillus of Koch, and the relative rarefaction of the air is in a direct ratio to the elevation. Mexico being two thousand two hundred and fifty-seven metres above the sea-level, it is consequently not difficult to explain its superiority in arresting the conditions favorable to the propagation of a disease which undermines so many constitutions.

The author's attention has been called to the fact that not only in the hotels and public establishments, but also in private dwellings in the United States, there are rooms constantly illuminated with artificial light and in which the light of the sun never penetrates. The individuals who work therein are deprived for many hours of the beneficial action on the economy that we know solar light exerts, and we know that this privation, and the special conditions that accompany it, can contribute to the development of tuberculosis by producing, 1, the anæmia and its consequent state of malnutrition, preparing the ground that serves for the cultivation of the germs of the disease; 2, increasing considerably the temperature of the place illuminated constitutes also a propitious cause of multiplication of the pathogenic principles involved and in the tuberculous process.

Prophylactic and Therapeutic Value of Food.—This paper was contributed by Mrs. Ellen H. Richards, of Boston. She said the prophylactic value of food is to keep the human body in a high condition of health. The main object to be gained is to establish a higher standard of health in the community, to make as widely known as possible the fact that most of the ill health now prevalent is needless; that a little self-denial, a little more attention to the rules of hygiene, a little more living in the open air, would cause a large number of the diseases now so common to disappear.

Hygiene of Hair-dressing and Barber Shops, by Dr. Angel Contreros, of Pueblo, Mexico. The disease which persons are most liable to contract in barber shops is scurf, and the author therefore touched on what appeared to him the most important points in the consideration of this matter. Scurf is understood to be a disease of the capillary system caused by the presence of vegetable parasites. The disease can be transmitted by some animals which already have it; but the contagion most commonly takes place from person to person and in families; in educational establishments and in barracks the disease

assumes an endemic character. Several times the centre of this propagation has been found in a hairdresser's or barber's shop, and has arisen from the use of instruments which have been badly cleansed. Barbers and hairdressers ought therefore to be very careful in cleansing the utensils which have served for one person before they are employed on another. All the utensils should be subject to the action of heat for a space of ten minutes, in a vessel or receptacle, at a temperature of 120° F., and the razors in an oil bath.

The Water-supply of Chicago, its Sources and Sanitary Aspects, by Dr. Arthur R. Reynolds, Commissioner of Health of Chicago, and Mr. Allen Hazen. The extensions of the various tunnels within the last two years have undoubtedly secured for the city a water less liable to sewerage pollution than was formerly obtained. The available analyses of the water are perhaps inadequate to measure accurately the improvement, but fortunately we can apply that most satisfactory of all water tests, the typhoid fever death-rate. The improvements in the water intakes have not all been made at a single date, but if we compare the two years ending September, 1892, and September 30, 1893, we find that during the earlier years the shore intakes at Lake View and Chicago Avenue were in common use, while the four-mile tunnel was not yet opened; while for the greater part of the latter year the shore inlets were entirely closed, and the four-mile tunnel and the one-mile tunnel at Lake View were in use. For the year ending September 30, 1892, the number of deaths from typhoid fever in Chicago was 1,790 in a total of 26,646, or a percentage of 6.72. For the year ending September 30, 1893, deaths from typhoid fever were 712 in a total of 26,977, or a percentage of 2.64. It is most unfortunate for this comparison that the old supplies were partly in use during the first few months of the latter year, before the four-mile tunnel was opened. We may believe that if this had not been the case the comparison would have been still more favorable to the improved supply. It is a well-known fact that people using a water-supply to which they are not accustomed are often more susceptible to any infection which it may contain than are those using such water regularly. A striking illustration was furnished by Philadelphia in the Centennial year, when the typhoid death-rate was nearly doubled, while in Chicago the present year, for the first five months of the Fair period, the rate has been less than half as high as for the corresponding month of the preceding year, and for the entire year under consideration. In spite of the vast numbers of visitors continually present, there has been a reduction of over sixty per cent. in the typhoid fever death-rate. This reduction is most striking, and it can hardly be doubted that the improvements in the water supply have been the chief, if not the only, cause. As there is no marked local distribution of the typhoid fever, so there were no exceptions to the general improvement with better water-supply. Not a single ward but showed a substantial reduction. Stronger evidence could hardly be produced to show the causal relation between the contamination of the water-supply and typhoid fever. The mortality percentages from typhoid fever in a number of cities may be compared as follows: Chicago, 1892, 6.72; in 1893, 2.64; Philadelphia, 1892, 2.22; Boston, 1.22; Paris, 1.01; New York, .90; Brooklyn, .80; London, .49; Berlin, .42. The cities having the lowest typhoid fever death-rate, London and Berlin, use only filtered water. London draws nearly all of its water from the two grossly polluted rivers, the Thames and the Lee, and, after filtering it, supplies it to a population that is almost free from typhoid fever. It may be a question worth considering by the engineers whether filtration would not be as cheap and effective a means of improving the water-supply as the farther extension of the tunnels.

Removal of Pathogenic Bacteria from Drinking-water by Sand Infiltration.—This paper was read by Mr. George W. Fuller, of Lawrence, Mass. That drinking-water is the carrier of some diseases there can be no doubt. Numerous laboratory experiments, by many investigators, indicate that the bacteria generally attributed to be the specific organisms of typhoid fever, Asiatic cholera, and other diseases, live in ordinary drinking-water for many days. The results of long-continued investigations at the Lawrence Experiment Station show that the typhoid bacillus is able to live in the water of the Merrimac River, in greatly diminished numbers, for a period of at least twenty-four days. Other investigators, using different water and different conditions, estimate the length of life of this germ at from three to eighty days. The duration of life of the cholera spirillum in various waters has been observed to be from two days to seven months. Modern hygiene demands that drinking-water shall be free from pathogenic bacteria, and the means by which such water can be obtained are worthy of our most careful consideration.

During the past forty years many filter-plants have been constructed in Europe, and numerous experiments in the filtration of water have been made, particularly during the past decade. This is largely due to the aid of bacteriology, which enables us to determine the actual efficiency of filters with regard to the removal of bacteria. The operation of many filters is quite satisfactory, as is shown by the low death-ratio from these diseases conveyed by drinking-water, and by the results of numerous bacterial analyses.

In summing up our present knowledge upon the removal of pathogenic bacteria from drinking-water, we may state that in addition to the experience of certain European cities, the Lawrence investigations, covering a period of more than five years and including the bacterial examination of more than eleven thousand samples of water, indicate that it is entirely practicable to construct filters that will economically purify water and remove more than ninety-nine per cent. of bacteria which may be present in the unfiltered water.

Dr. Thomas Noriega, of Mexico, read a paper on "The Potable Waters of the Country Presenting many Dangers," and Dr. E. Liceaga, of Mexico, on the "Statement of Scientific and Experimental Data for the Establishment of International Maritime Police." Dr. Domingo Orvanaños, of Mexico, read a paper entitled "Difficulties in the Practice of Quarantine in Some of the Mexican Ports." Other papers were read as follows on this subject: "The Canadian Quarantine System," by Dr. Frederick Montizambert, of Quebec, Canada; "Quarantine System of Texas," by Dr. R. M. Swearingen, of Texas; and "Quarantine," by Dr. S. B. Ollifant, President of the Louisiana State Board of Health.

Evening Session.

At this session addresses were delivered by Dr. Sarah Hackett Stevenson, of Chicago, on "Municipal Sanitation;" by Miss Ada Sweet, of Chicago, on "Voluntary Health and Public Improvement Societies;" a paper by Sir Charles Cameron, of Dublin, on "Importance of Civic Public Hygiene to the State;" "Municipal Sanitation of Minneapolis," by Dr. E. S. Kelly, of Minneapolis; and "The Importance of Sanitary Bureaus, their Economic Organization," by Dr. Jesus E. Monjaras, Sanitary Inspector of San Luis Potosi, Mexico.

Fourth Day, Friday, October 13th — Morning Session.

Papers were read at this session as follows: "The Best Way to Restore the Practice of Vaccination to Its Proper Place as a Preventive of Small-pox," by Dr. Charles N. Hewitt, Secretary of the Minnesota State Board of Health; "Animal Vaccine: Why It Should be Preferred to Human Vaccine," by Dr. Miguel Marques, of Chihuahua, Mexico; "La Grippe," by Dr. Gregorio Mendizabal, of Mexico; "Diphtheria in the City of Mexico," by Dr. Roque Macouzer, of Mexico; "Notes on Scarlet Fever in the City of Mexico," by Dr. Fran-

cisco Marin, of Pueblo, Mexico; and "Unrest," by Dr. William Oldright, of Toronto.

An Experiment in Disinfection: How an Epidemic of Pneumonia was Checked.—This was the title of a paper read by Dr. Jerome Cochran, of Birmingham, Ala. The paper dealt with an epidemic of pneumonia checked by disinfection. The total number of cases during the epidemic was 93; total number of deaths, 30, nearly one-third of the cases. The epidemic occurred in the prison at Pratt Mines, Ala. The prison was divided into three sections, and while the disinfection was going on in one section the convicts belonging to that section were crowded into the other two sections. The mattresses were taken off, and these together with the blankets were scattered over the floor. Then by means of a force-pump and a long hose-pipe the ceilings, walls, and the floors, with their contents, were literally deluged with a solution of bichloride of mercury, 1 to 1,000, until the bichloride solution stood in puddles and ran in rivulets on the floors. The mattresses, etc., were turned over so as to be wetted as thoroughly as possible on both sides. Dr. Cochran has more confidence in the disinfecting power of heat than in the bichloride. The mattresses, blankets, etc., were therefore put into large steam chambers that had been constructed for the purpose, and kept there for six hours, after which they were taken out and dried. In the meantime the disinfected wards were thoroughly scrubbed out, whitewashed, and fitted up so that they could be occupied again the next day. The convicts, before they were returned to their old quarters, were required to take a bath and to put on clean clothes. In one week the epidemic, attacked at the period of its most rapid increase, went out like a fire under a deluge of water.

A Contribution to the Study of Yellow Fever from a Medico-geographical and Prophylactic Point of View in the Mexican Republic.—This paper was read by Dr. E. Liceaga, President of the Superior Board of Health, Mexico. The author presented the following conclusions:

1. The places where yellow fever reigns, and which can be considered as centres of infection are in the Gulf of Mexico, Vera Cruz, Frontera, Campeche, and the districts on the northern coast of the Yucatan peninsula, the last named separated by the Yucatan Canal from the island of Cuba, where the fever also reigns. On the great Pacific coast which belongs to the Mexican republic there is not a single yellow-fever centre.

2. All the Mexican territory on the Gulf of Mexico and on the Pacific coast is well adapted for the disease when imported.

3. Yellow fever has become epidemic in the following places of the coast on the Gulf: Matamoros, Altamira, Tampico, Tuxpam, Papantla, Misantla, Nautla, Alvarado, Goarzavoalcos, Minatitlan, Lagang, and San Juan Bautista de Tabasco.

4. The epidemic has extended into the interior, but never into places situated more than 1,008 metres over sea level.

5. On the Pacific there is not a yellow-fever centre, but it has been imported into the following places: On the peninsula of Lower California, La Paz, Todos Santos; on the continent, Guaymas, Altata, San Blas, Mansanillo, Santiago, Acaponeta, Puerto Angel, Salina Cruz, Tonala Soconuzco, Tapachula and San Benito, and in the interior in Hermosillo and Culiacan.

6. Immunity against yellow fever is obtained after having had the disease in any of its forms. It is possible that this immunity may be lost at times, but it is seldom the case, as it happens with typhus, small-pox, and scarlet fever, which may be had by a person who has had them.

7. The vaccine of Jenner against small-pox, and others which science has discovered, authorize us to look for the one that will prevent the yellow fever. The inoculations against this fever which Dr. Manuel Carmona y Valle has practised with success, should be tried on a large scale, in an uniform manner, in order to be able to find out if they are efficacious. If this experience confirm it, then they should be made compulsory in the countries where the fever reigns. If they should not prove worthy, then the inoculation of blood serum, as proposed by Dr. Sternberg, from persons enjoying immunity, should be tried on a large scale and in an uniform manner.

8. The purification of the drinking-waters used by persons who have to expose themselves to contract the disease should be recommended. The purification of the water used on board the ships leaving or calling at infected ports should be proposed.

9. The sanitation of the places which are yellow-fever centres should be done at once.

10. To prevent, by means of sanitary police measures, the importation of fever into places where it can be developed.

How shall Our Lepers be Cared for? by Dr. Benjamin Lee, of Philadelphia, Pa. He said the State Board of Health of Pennsylvania and the Board of Health of the city of Philadelphia have had some unpleasant experiences with lepers, which had led both of these bodies to appeal to the general government to establish a colony, or colonies, where these unfortunates might be provided with the comforts of home and medical care and nursing, and at the same time might cease to be a menace to the health of those with whom they were thrown in close contact. The United States had only gone so far as to make the affection quarantinable at the sea coast, and to order those found suffering from it on arriving vessels to be at once returned to the ports from which they came.

Dr. Manuel Carmona y Valle, of Mexico, contributed a paper on "Yellow Fever." Papers were also read by Dr. Luis E. Ruiz, of Mexico, on "Typhoid Fever in the City of Mexico;" "Some Reflections on the Infection and Contagion of Typhus Exanthematicus," by Dr. Ramon Icaza, of Mexico; "Registration," by Dr. S. W. Abbott, Wakefield, Mass.

Dr. John H. Rauch, of Chicago, Ill., introduced a resolution to suspend immigration until the epidemic of cholera was over, which, after some discussion, was referred to the Executive Committee.

Election of Officers.—The American Public Health Association elected the following officers: *President*, Dr. E. P. La Chapelle, of Montreal; *First Vice-President*, Dr. Manuel Carmona y Valle, of City of Mexico; *Second Vice-President*, Dr. J. N. McCormack, of Bowling Green, Ky.; *Treasurer*, Dr. Henry D. Holton, of Brattleboro, Vt.; *Permanent Secretary*, Dr. Irving A. Watson, of Concord, N. H.

Place of next meeting, Montreal, Canada, October, 1894.

Note.—Although the gathering was denominated an International Congress of Public Health, very few outside of the members of the American Public Health Association contributed to the proceedings. The bulk of the work was done by the members of the American Public Health Association.

After drafting, introducing, and adopting resolutions of thanks, the President declared the Congress adjourned.

The Testicle in Hereditary Syphilis.—1. The testicles may be affected so slightly in congenital syphilis that it needs the microscope to detect the malady. 2. In a small percentage of cases of congenital syphilis, the lesions of the testicle are such that they can be detected by physical examination. It appears, as a rule, in the first two or three years of life. 3. The globe is chiefly affected; and there is no affection of the prostate, vas, or vesiculæ. 4. The disease is frequently bilateral. 5. Hydrocele is fairly frequent, the swelling is painless, and may be nodular. 6. The enlargement is rarely great. The microscopical appearances are those of inflammation of the fibrous tissue framework of the organ, leading to fibrosis, and, if the disease is not checked, to atrophy of the organ. Gummata are rare.—Carpenter.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 19, 1893.

D. B. St. John Roosa, M.D., President, in the Chair.

Myoma Uteri and Its Treatment.—Dr. Andrew F. Currier read a paper on this subject. After some general remarks, in which he referred to the rapid strides which surgical interference had made in cases of myoma uteri, he took up special modes of treatment. The method recommended by Schroeder, which rested upon the proposition that if the uterine canal were intact, the myoma involving only the muscular structure, it might be removed, and the organ with its functional power be preserved, was applicable in only a limited number of cases at best. The technique was difficult, there was danger from want of drainage, there was liability to recurrence, and, if pregnancy took place, it was likely to end in abortion.

Regarding galvanism, he had studied this method carefully, and could say without bias, unless it were in favor of the procedure, that, while it relieved most of the urgent symptoms, it was never followed by permanent cure, except in a few rare cases where some other explanation was at hand. Moreover, there were cases in which it had provoked forms of degeneration which involved great risk to the health and life of the patient. The attempt to cure by so uncertain a means was not to be recommended as a rule. In fact, the most that had been claimed for the electric method by even its warmest advocates had been a symptomatic cure. But if the symptoms were in abeyance, while the condition which had caused them still existed, one could not say how soon they would again be awakened. He was personally acquainted with a number of cases of recurrence of symptoms, which had been allayed by electricity. Ergot, and medicines having a like influence upon the uterus, if given in sufficient quantity to be of effect might also do harm. He had seen gangrene caused by them.

The main question was, whether the symptoms produced by myoma uteri were of such a nature as to warrant removal of the organ. While the claim might be a just one that this disease seldom caused death directly, yet all must have seen many cases in which the loss of blood and other symptoms had brought the patient to premature death. Insensitive women, more especially negroes and Germans, who led an out-of-door life, sometimes suffered little inconvenience from myomatous tumors of the uterus; but he had never seen an Irish or French woman who did not complain. The legitimate symptoms were hemorrhage, pain, and disturbance of function. The latter related to other organs as well as to the uterus. Spontaneous disappearance of the tumor was rare. An early diagnosis was seldom made. The growth of the tumor was usually slow. While it might diminish in size at the menopause, yet the number of recorded cases was increasing, in which the growth had continued, or there had been change to the malignant form.

Aside from modes of treatment already referred to, Dr. Currier said that curettage might check the flow for a time, but it would return. Galvanism sometimes prejudiced a favorable issue from surgery. All cases of tumor of the uterus should be treated. Regarding removal of the uterine appendages, his own success from this method would lead him to regard it with greater favor than would the general statistics.

The procedure which received chief attention in the paper was total removal of the uterus by the abdominal method, the vaginal vault being covered over by the peritoneal flaps. This was regarded as preferable to leaving any portion of the cervix, since, above the latter, pus was liable to collect, and there had even been sloughing away of the small stump. The advantages derived from the Trendelenburg posture had rendered hysterectomy by abdominal incision comparatively easy and safe. Dr. Currier employed gauze drainage into the vagina. He doubted the propriety of operating on very large tumors. Such patients would almost surely die from loss of blood contained in the tumor itself. He had not seen a case of total extirpation in which the pelvic roof had not become as strong as might be desired. Of course the appendages should also be removed during the operation. There was no more reason, the author thought, why the mentality should be affected after the operation than after the menopause. He concluded by expressing the opinion that in the near future the radical operation would be resorted to more frequently than in the past.

A Bright Future for Hysterectomy in Myoma Uteri.—Dr. William M. Polk was quite in accord with the view that hysterectomy for fibroids of the uterus was destined to be resorted to more frequently. This opinion was based upon the history of other pelvic operations, and upon the marked success which had attended hysterectomy for fibroids recently in this country and in Europe. There could be no doubt in the mind of one who had performed the operation that it was a comparatively innocuous one. At least the time had passed when it could be condemned on the ground of excessive mortality. The only question was, What influence had it upon the woman's health and her usefulness as a member of society? Usually the patients were restored to excellent health, and were enabled to perform their duties with a vigor which was surprising to themselves.

In considering the question of removing the appendages and leaving the uterus, one should bear in mind the possibility of retrograde changes taking place, passing into malignant disease. At present the method of operating lay between total extirpation and amputation, leaving only a portion of the cervix. In spite of the many advantages which Dr. Goffe had claimed for the latter method, Dr. Polk preferred total extirpation. Where a small portion of the cervix remained, pus was liable to collect behind it, and the patients would probably suffer more or less the remainder of life. The pelvic floor would remain in as good condition, as well supported, after total extirpation. He would vary the technique, from that described in the paper, and close the peritoneum over the vault, instead of putting in a drain. The patient could leave the bed in twelve or fourteen days. The Trendelenburg posture was of great value in this operation. The mere size of the tumor should not argue against its removal. The four arteries, ovarian and uterine, could readily be tied in the Trendelenburg posture, so that hemorrhage could be thoroughly controlled even while removing by enucleation large tumors with facets projecting under the peritoneum.

No Treatment Required in Most Cases of Myomata Uteri.—Dr. G. M. Edebohls thought that most cases of fibroma and myoma of the uterus were unattended by symptoms, and therefore required no treatment. That did not mean, however, that in a given case symptoms would not arise in the future and demand treatment. Regarding the risks of an operation, he thought they were no greater than in removal of ovarian tumors. In either case, if complications existed, the chances would be less favorable. As to medicinal means, he would expect no more from them in tumors of the uterus than in tumors of the ovaries. Surgery, embracing electricity and the knife, was the only remedy. Treatment by electricity involved as much anxiety as did total extirpation of the uterus and tumor. Personally, he would prefer to perform hysterectomy. He had even lost one patient by electricity.

Dr. H. J. Boldt mentioned the following points: myoma uteri hardly ever occurred before puberty; the cause seemed to be an irritation of the muscular coat of the small vessels; where a change took place it was usually into sarcoma, although he knew of one case in which the tumor became carcinomatous. Electricity should be regarded as a surgical procedure, and should be tried only in special cases. Martin, of Chicago, and others had in some cases tied the uterine arteries with

good result. After total extirpation of uterus with tumor, Dr. Boldt believed in closing the pelvic vault completely. There was no necessity for drainage, after either abdominal or vaginal hysterectomy. He did not think abdominal hysterectomy would take the place of vaginal. He advised complete extirpation as opposed to incomplete.

Galvanism in Two Classes of Cases.—Dr Joseph E. Janvrin had used galvanism in two classes of cases, (1) where the tumor was small and the patient was under thirty-five years of age; (2) at the menopause. In the latter class of cases he usually resorted to curettage also. He did not believe galvanism ever caused the growths to disappear, but the symptoms might be relieved for months or even for years. Where the tumors were multiple, galvanism and curettage had often carried the patient along to the menopause, when shrinkage was likely to follow. He thought the question, whether it was best to leave a part of the cervix, had not been settled. He had never seen these tumors of the uterus undergo malignant change. True, he had seen them coexist with malignant disease of the uterus, but the fibroids and the malignant affection were quite separate, involving different parts of the organ.

Dr. J. R. Goffe was strongly in favor of operative measures. He could not accept the statement that the entire cervix should always be removed. He had performed supra-vaginal amputation, leaving a small portion of the cervix, eight times, with one death. In Europe the procedure had been resorted to many times, with a very low mortality in the hands of those who had done it oftenest. It disposed of traumatic tissue much better than did total extirpation, and the danger of wounding the ureters was much less.

Dr. A. P. Dudley said we had listened nearly two hours to remarks upon the radical operation for uterine fibroma; he would like to ask, What were the hundreds of physicians outside of New York and a few of the larger cities going to do with their patients? Few of them could be expected to perform hysterectomy, and not all patients could come to New York. True, he must himself be classed among those who believed in radical operation, but he had not found it necessary or desirable to urge it upon the patient the first time he saw her. There were palliative measures which should be discussed as fully as the radical operation. He claimed that Schroeder's method of excision still had a field, *e.g.*, in cases of fibroids in unmarried women who had not passed the menopause, and looked forward to the marriage state. Drain through the uterus. Then there were cases where curettage would relieve the symptoms, especially hemorrhage, for often the cause of the hemorrhage was only a little tuft on the mucous membrane which could be easily removed. Electricity was of benefit in some cases. Surely it must have a place, else Keith, at one time the greatest operator in myoma uteri, would not have discarded operating in favor of electrical treatment. In cases of multiple tumors, Dr. Dudley thought the radical operation called for. Regarding complete or incomplete removal of the uterus, he thought it a strong statement that any measure short of total extirpation should be relegated to the past. He would continue to spare a portion of the cervix, and save the vaginal vault, so long as the method was as easy and as safe as total removal. In general he had abandoned Hégar's operation.

About Electrical Treatment.—Dr. A. H. Goelet said he had had occasion to review the literature of this subject, and he believed the opinion of the best part of the profession was to the effect that, when these tumors of the uterus caused no symptoms, there should be no surgical interference. His personal experience had been largely with electricity, and he could say that there were few cases in which the symptoms could not be allayed by electric treatment. He was, therefore, opposed to removal of the uterus (unless there were some urgent necessity) before electricity had been given a trial by one who understood how to use it. He did not claim that this agent would produce a radical cure, but he did claim that in the majority of cases it would cause a symptomatic cure, and sometimes would cause a decided diminution in the size of the tumor. It had not been his experience to meet with a recurrence of the symptoms, especially not in an aggravated form. In spite of assertions to the contrary, this treatment did not complicate subsequent removal. Indeed, by its influence upon the adhesions, and improvement of the general health of the patient, it made success from subsequent removal more probable. He said that, of course, cases complicated by purulent accumulation in the uterine appendages would not admit of electric treatment. A dispensary was not the proper place for its application.

Dr. Lesser was in accord with the last speaker. He had tried galvanism in eighteen cases, in a hospital, and could say that it was of benefit in many, especially those in which the growth was interstitial. He had not known its use to be followed by renewed growth of the tumor. He had tied the uterine arteries with benefit in two cases.

Dr. Currier closed the discussion. Danger to the ureters during supra-vaginal hysterectomy could be avoided by Stimson's method of exposing these.

The Coroner System.—J. H. Girdner said: The Section of Public Health of this Academy took up the subject of reforming the coroners' office last spring and did some good work. On the subject I desire to offer this resolution:

"*Whereas*, The Grand Jury of this county made a public presentment in the Court of General Sessions on September 29th of the present year, declaring the coroners' office to be 'a cause of embarrassment to the interest of public justice,' and suggesting the adoption in its stead of a law providing for the appointment of medical examiners to make all preliminary inquiries to determine the cause of death in cases requiring official examination; therefor be it

"*Resolved*, That the New York Academy of Medicine heartily indorses this action of the Grand Jury, and urges upon the public and the members of the Constitutional Convention soon to meet in Albany the necessity for a change in the constitution of this State sufficient to allow the Legislature to create a new and better system in place of the present useless and antiquated organization known as the coroners' office; and be it further

"*Resolved*, That the New York Academy of Medicine earnestly calls the attention of the public and the approaching Constitutional Convention to the admirable system of medical examiners which the State of Massachusetts has substituted for the coroner system, and that a committee of five members be appointed by the President of this Academy to press the matter upon the attention of the Governor of the State and upon the Constitutional Convention, the Legislature, and the general public."

Dr. A. Jacobi said that if it was proposed to act upon the resolutions at this meeting, and in their present shape, he must oppose them, on the ground that they had to do with politics and questions foreign to the purposes of the Academy.

After some further remarks, the resolutions were laid over until the next meeting, when a fuller attendance might be expected.

SECTION ON PUBLIC HEALTH, LEGAL MEDICINE, AND MEDICAL AND VITAL STATISTICS.

Stated Meeting, October 30, 1893.

S. T. Armstrong, M.D., in the Chair.

Dispensaries, Historically and Locally Considered.—Mr. Charles C. Savage, President of the Demilt Dispensary and Trustee of the Roosevelt Dispensary, presented the paper. He had found very little in literature of aid to him in its preparation. How could those who were strong mentally and physically best aid those who

were weak and in poverty without destroying self-respect, which was the backbone of character. The duty of the State to care for the chronically incompetent ought not to be doubted. Private charity could best assist persons during temporary need, but it should then cease. The true design of charity was to remove the occasion for it.

The primary intent in organizing a dispensary was briefly defined in the charter of the Demilt Dispensary, namely, to furnish medical and surgical aid to those who were in need thereof, and were unable by reason of poverty to pay for it.

Philadelphia was the first city in the United States to establish a hospital (1786); then came New York, then Boston. Dispensaries in New York City could be divided into three classes. The classes shaded into one another, but were organized on different models for different purposes. 1. The original or general dispensary, whose prime motive was to prescribe medical or surgical treatment for the sick poor—a simple humanitarian system founded on the least expensive plan. The physicians were not allowed to charge the patients a fee, but were expected to devote their services free. At present, however, some of the dispensaries paid the physicians a small salary. No indigent person need suffer without a physician. Maternity cases were not taken. 2. Within the past twenty five years the principal hospitals had established an out-patient or dispensary department. They did not pay visits to patients' homes. It was not certain that their object was so much humanity as clinical practice. They did not diminish the attendance on the general dispensaries. A large supply of material, however, was found, if not created, by their existence, even though the hospitals were located outside the so-called poor districts. 3. Special dispensaries for medical or surgical treatment. In them experience was gained which enabled the specialist to become pre-eminent in his line. While they were an advantage to some poor patients, they were a disadvantage to poor physicians. A fourth class might be made to include dispensaries, etc., connected with homœopathic institutions, but their charitable purpose was not so evident, since they were usually located outside of poor districts. Then there were churches, missions, societies, etc., which gave assistance to those in whom they were especially interested. The system of provident dispensaries in England, which had been established to take the place of clubs, etc., was supposed to encourage thrift and foresight among the poor. They have been praised by some and condemned by others who had investigated them. The plan which had been adopted by most dispensaries in New York, of charging ten cents a prescription, had worked more successfully than had been expected. About eighty-five per cent. of those coming to the dispensaries, and seventy per cent. of those visited at their homes, were able to meet this nominal charge. Probably nine-tenths of the dispensary patients were foreign-born or one remove therefrom. They lived from hand to mouth. The rent of their rooms ranged from three to fifteen dollars a month. Many gave a false address, and many visited different dispensaries, thus multiplying the number of persons apparently receiving charity.

Does Gratuitous Relief Have a Demoralizing Effect on the Recipient, and Does it Interfere with the Emoluments of Practitioners?—On this question superficial thinkers were divided between yes and no. But there were complex problems involved which yet remained unsolved. It was admitted, in discussions in some of the newspapers and medical journals, that dispensaries did a great deal of good, but it was also charged that they did an immense amount of harm by indiscriminate bestowal of gratuitous service. One complainant had suggested an investigation in each case, but Mr. Savage regarded such a plan as impracticable. Moreover, physicians would oppose it, as it would, if carried out thoroughly, result in closing some institutions in which they were interested. Free music in the parks, free libraries, free baths did not demoralize the recipients, nor make mendicants of them, and he thought the same might be said of free medical treatment. The average poor man's doctor was either inexperienced, incompetent, or a scheming quack. The patient's desire was to be cured, and he was anxious to obtain the best service which his poverty would permit. Whatever fault might exist in dispensaries, he thought reasoning philanthropists must regard them as absolutely necessary in a dense community. From forty years' observation, he felt quite sure that dispensary charity was the most healthful and least harmful of a number of ways of assisting the poor; that it acted least toward breaking down self respect and desire to be self-supporting. Physicians competed for positions in the dispensaries. Appointments were made for ability alone, the chief purpose being to help suffering humanity, and only incidentally to benefit the physician. A question which had been much debated was, how should the board of managers be constructed? Should they be laymen or physicians, or composite? Mr. Savage believed they should be laymen, but he did not believe in appointing laymen for social position or wealth when they took no active part in conducting the work of the dispensaries.

Dispensaries had come to stay, for good or for evil, and the fact that they had not received discussion in city, State, and national medical societies was to be deplored.

Dr. J. West Roosevelt, being requested to open the discussion, expressed gratification at having listened to remarks upon the subject of dispensaries by one so eminently fitted to discuss the subject. Complaint regarding the dispensary abuse usually came from certain physicians who felt that improper cases received treatment free. But the question had often been discussed from a narrow standpoint. First, however, let us admit that dispensaries, in spite of the good they do, do a great deal of harm, but not nearly so much harm as those think usually who criticise them. In a large floating mass of dispensary patients, it was impossible to correctly estimate the number receiving free medical treatment. The fact that certain physicians were benefited and others injured by establishing dispensaries, did not affect the question of right in founding them. The public weal, not individual weal, was to be considered. Physicians in dispensaries had for their chief object personal benefit by gaining experience. In teaching dispensaries the instruction obtained from the patient's case should in no wise be regarded by the patient as paying for the medical service. To decide who was worthy of dispensary charity was a difficult problem. Must the person be reduced to absolute penury? He thought not. Appearances could not constitute a basis, for a clerk might be in poverty, and yet be compelled to put on some appearance of thrift in order to retain even a miserable position. There was no comparison between ordinary charity and charity to the sick. The sick seeking charity could not be regarded as vicious or criminal. At the Roosevelt dispensary more than eight per cent. of applicants were rejected simply on their own replies to questions. A charity organization society could not possibly visit all to determine their worthiness of medical aid. He did not believe in "playing pay." The dispensary physician could do a good deal toward eliminating patients who were able to pay, and he should have that privilege.

Glaring Abuses.—Dr. H. D. Chapin said that abuses were particularly glaring in children's dispensaries. He had been connected with four. One evil was that babies were brought out which ought not to be taken out at all. A baby with pneumonia or pleurisy would sustain much greater injury by being taken to the dispensary, than it could receive of good from a prescription for medicine. Then, dispensaries did more toward spreading contagious diseases than all other factors. He objected strongly to boards of managers being composed exclusively of laymen, just as he objected to boards of health which excluded physicians as members. It had been objected that doctors were cantankerous, and would be unfair in

making appointments, etc. It was true that they were actuated more or less by favoritism, as were other men, but he insisted that those who had to treat the sick should have the management of the institutions in which they were treated. Certain improvements would surely follow. At present the work done in dispensaries was worthless from a scientific standpoint. Conclusions drawn from dispensary statistics did more harm than good in medical literature. There should be a laboratory in each dispensary, where blood could be examined for the plasmodium of malaria, etc.

A child was brought to the dispensary with diarrhœa. The mother paid ten cents for a prescription, when the doctor who wrote the prescription knew quite well that good milk was the only remedy. There should be a corps of visitors to go to the homes of the poor and correct the cause of sickness there. Then they could judge of the financial circumstances of those seeking charity.

Dr. F. W. Jackson said he had given a great deal of time to dispensaries for many years. He thanked God that he had not been connected with any which permitted the abuses spoken of by the last gentleman on the floor. He knew it was possible to carry on dispensary work without such abuses. At present, however, there was some danger in most dispensaries of spreading contagious diseases. The plan in vogue in Germany would be desirable, that of having patients seen first by a physician, who should isolate at once those with contagious diseases. He earnestly opposed the view that good scientific work could not be done in dispensaries. A laboratory would be desirable, but it was not indispensable. At Roosevelt they were going to give the sick children good milk at four or five cents a bottle. Perhaps he stood alone in the view that a gift did not demoralize the recipient. He had turned many persons away from the dispensary, telling them they were able to pay a doctor, and they had usually admitted they were. He had been surprised at how many of these persons had gone to the institution because they thought it was a public one, that the attending physicians received a large salary, and that they were desired there as patients. They had no idea they were acting the part of paupers, and went away willingly when he explained to them that they were taking his time, which should be devoted to the poor. It seemed to him the doctor outside had no right to cry. He had not the energy or luck to get in. But the doctor inside had a responsibility which he ought not to shirk. He should never take a patient through his opportunities at the dispensary. He should act fairly to the doctor outside, even though he did not know him. It would be very difficult to have the condition of every patient inquired into, but the dispensary physician could exclude many who were able to pay by a few well-directed questions.

Dr. Joseph Collins had had four or five years' experience with several dispensaries, and spoke warmly against their abuses. One had not been mentioned, namely, the sending of patients by physicians to teaching institutions for the opinion of specialists. As to the value of dispensary work for scientific purposes, he would like one to mention a contribution of worth published within a decade, based on dispensary observation. He believed that if the wealthy people would pay a corps of twenty physicians a small salary, say five hundred dollars a year, and a corps of nurses at eight hundred dollars a year to visit those seeking help at their homes, and enable them to prescribe free milk if it were needed instead of free medicine, more good would be done than was being done by all the dispensaries. Large sums of money were spent upon dispensaries, these were conducted according to old methods, and no note was taken of the advances made in sociology. How many young ministers or lawyers would devote as much time to the poor without compensation as was being done by scores of physicians? The medical profession was a part of the public, and should have something to say in the matter. They were suffering from the condition from which the early American settlers suffered—taxation without representation, and they were about ready to throw over the tea.

Dr. L. Landis said that in a dispensary where he served, one doctor was expected to treat as many as thirty patients in an hour. How much thought could he give to the individual cases? The question of pauperism could not be solved by charity: it could be solved only by treating the cause of pauperism. Dispensaries made paupers. A man, though rich, would not spend a dollar if he could get its value for nothing.

Dr. Leverson, attorney, earnestly appealed to physicians to study the social aspect of the question; to inquire into the cause of poverty, and, apprehending the remedy, seek to apply it. Voluntary poverty would always remain; involuntary poverty was due to the monopolization of the forces of nature by a few through evil legislation. This fact had been demonstrated by the greatest philosopher of centuries, Mr. Henry George, in his book, "Poverty and Progress."

Dr. Dillingham named a dispensary in the city where cases of contagious disease were diagnosed at once and isolated, thus preventing spread among other patients.

Thousands of People Pauperized by Doctors, none by Dispensaries.—Mr. Cook said he had heard a great deal about the demoralizing and pauperizing effect of dispensaries, but he had failed to observe it; he knew of perhaps thousands of cases where people had been pauperized by doctors; cases where land, house, furniture, clothing, had gone to pay doctors. The public spent hundreds of thousands of dollars to prevent disease by keeping streets clean, etc. Was it not worse when disease had actually come? Was it not in the public interest to get the patient well as soon as possible, in order that he might again become a producer? Once we paid twenty or twenty five cents a yard for cloth for which we now pay only ten cents: had the effect of a reduction in price been demoralizing?

The Chairman, Dr. Armstrong, thought the argument of the last speaker not sound. There was a vast difference between spending large sums in the interest of the people when it had been collected by taxation, and asking the services of physicians for which nothing at all was paid. Judging by his experience in the large cities of the United States during the past fifteen years, he thought New York unfortunately cursed with the dispensary system. He believed that one of the most baneful of things in a community was indiscriminate alms-giving, and he saw no difference between indiscriminate almsgiving and indiscriminate free medical treatment. The argument of the paper seemed to be that physicians were working for experience, and were therefore well paid. This argument, he thought, had not the least amount of weight. What man, in any position in life whatever, was not working for experience? Medical men were very necessary to dispensaries, but boards of trustees were utterly worthless He thought something should be done to exclude well-to-do people as dispensary patients.

A lady physician inquired of Mr. Cook whether plumbers could be expected to render services free because they were in the interests of sanitation?

Mr. Cook supposed the public would not object if plumbers should form societies and offer their services free, as doctors did.

Mr. Savage closed the discussion. He did not doubt but what the physicians highest in the medical profession owed their eminence largely to experience gained in dispensaries, and in that way they were in a sense paid for their services. Moreover, giving their time without a salary was a voluntary act. Regarding their occupying a place on the board of managers in some dispensaries, they did, and he did not hesitate to say that they were the worst dispensaries in the city.

The Truly Great Physician is one who never speaks ill of his medical brother. He is dead.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Annual Meeting, October 23, 1893.

WILLIAM STEVENS, M.D., PRESIDENT, IN THE CHAIR.

THE meeting was devoted to the election of officers for the ensuing year and to the reading of reports of committees.

Election of Officers.—There was but one candidate for each office except that of censor, others having withdrawn their names. The Secretary was instructed to cast an affirmative ballot for the Society for the following: *President*, Seneca D. Powell; *First Vice-President*, Henry D. Chapin; *Second Vice-President*, Egbert H. Grandin; *Secretary*, Charles H. Avery; *Assistant Secretary*, William E. Bullard; *Treasurer*, John S. Warren. The President declared these gentlemen elected. The candidates for *Censor*, five to be elected, were: A. S. Hunter, C. H. Knight, F. Peterson, R. Van Santvoord, E. D. Fisher, F. M. Warner, W. Stevens, and A. Caillé. The five here first named received the highest number of votes and were declared elected.

Work Done by the Comitia Minora.—Among other work done by the Comitia Minora, mentioned in its reports, was the adoption of a resolution, which had also been approved by the Society, recommending the establishing of a bureau of trained nurses, and appropriating $500 therefor, provided a suitable room could be obtained in the building of the Academy of Medicine.

Regarding the recommendation of the State Medical Society, that all county societies hold their annual (election) meeting in the spring, the Comitia thought a change in the case of this Society was not advisable.

By a by-law of the Society, members of the Comitia who absent themselves from three meetings during the year without an acceptable excuse, are debarred from holding office for a year. Dr. Abbe, who had been nominated for president, having been absent from five meetings, found it necessary to withdraw his name.

Treasurer's Report.—DR. WARREN read his report as treasurer. There was a balance in the treasury from last year, in round numbers, of $1,789. Received in annual dues, $3,228; in initiation fees, $321; fines from illegal practitioners, $2,000. Sale of transactions, etc., brought the sum up to $7,438. The disbursements had been $4,657, leaving a balance in the treasury of $2,781.

Counsellor Purrington's Report.—This was included in the report of the Board of Censors, and was read by DR. VAN SANTVOORD. During the year nineteen persons had been arrested for illegal practice, two cases were withdrawn, in the other seventeen there was conviction. In three of the cases the detective work had been done by newspaper reporters, the expense of the department to the Society above the amount of fines collected had been about $550.

The Annual Dues of members are continued at $3.

Report of the Committee on Hygiene.—This report was read by DR. WILLIAM A. EWING. It referred to the requirements in the handling of manure; to carelessness of the public in drinking from the public cup and of water the purity of which was doubtful; to the handling of ashes and garbage, recommending separate carts and those which were water-tight, provided with a cover, and not to be filled within two inches of the top; to immediate separation of patients with contagious diseases from other patients in dispensaries; recommending more radical measures in preventing the spread of tuberculosis and of syphilis; suggesting that there should be State inspectors in contagious diseases, etc.; approving of the establishment of a national board of health. The report stated that the introduction of cable for horse cars on the Third Avenue line would do away with twenty tons of manure now dropped in the streets daily.

A Member Expelled.—DR. EVERETT HERRICK, Chairman of the Committee on Ethics, sent the report to be read by the Secretary. Recently a member in Harlem had been expelled for evident prevarication in answering to charges of criminal abortion.

Prize Essay.—DR. BRONSON, Chairman of the Committee on Prize Essays, read the report. Five essays had been submitted in competition during the year. The successful one was by Dr. Joseph Collins: "A Contribution to the Arrangement and Functions of the Cells of the Cervical Spinal Cord; to which is appended a note on Central Changes Secondary to Long-continued Disuse of an Extremity."

Honorable mention was made of the essay by Dr. WILLIAM L. BAKER: "Studies on the Streptococci Occurring in the Throat, and their Relation to Other Streptococci."

On motion, the Comitia Minora was authorized to appropriate and apply such sums of money as might be in its judgment required for the successful working of the Society during the coming year.

A motion, requesting the President to appoint a memorialist on the late Dr. John C. Peters, was passed.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

ANNUAL MEETING OF THE ROYAL COLLEGE OF SURGEONS—GASTRO-ENTEROSTOMY AT THE CLINICAL SOCIETY—NEUROSES OF THE MENOPAUSE AT THE MEDICAL SOCIETY—MR. JONATHAN HUTCHINSON AND HIS NEW MUSEUM—DECEASE OF M. A. HENSMAN.

LONDON, November 3, 1893.

YESTERDAY the annual meeting of the fellows and members of the Royal College of Surgeons of England was held, and a dreary function it was. The council mustered in full force, but their audience scarcely outnumbered them. A few years ago, when these meetings were first held, the greatest hopes were entertained, and members as well as fellows looked forward to exercising some influence in their own college. Then the theatre was crowded with members who listened with delight to the eloquence of Sampson, Gamgee, and other supporters of their rights. But the council has held on to its selfish obstruction, and the anachronism remains of a council of twenty-four, retaining in this century all the powers and privileges of a college of some seventeen thousand members. There is a pretence of consulting them at this annual meeting, but the council adopted the policy of simply reporting the following year that they had received the resolutions passed at the preceding meeting, and so exhibiting an object-lesson of how-not-to-do-it. After asserting their claims year after year, the members have become disgusted and no longer come to the meeting, and the fellows are satisfied that their own pretentions will be upheld by the council, and so stop away. Of course, there are two or three interested reformers of each class who put in an appearance, and perhaps half a dozen more whose leisure permits them to look in for once and satisfy their curiosity. And so empty benches face the council, who should learn from this that confidence in them—notwithstanding their friends pass a resolution of thanks—is no longer felt by the great mass of the profession. It is true that some more liberal-minded fellows have obtained a seat in the council, and much is hoped from their influence; but every meeting held proves more conclusively the need of some more drastic reforms—say, such as an act of Parliament would in this democratic age be likely to apply.

Gastro-enterostomy again occupied the attention of the Clinical Society on the 27th ult., when Mr. Bidwell related a case of cancer of the pylorus in a man sixty-nine years of age, for which he had joined the jejunum to the anterior wall of the stomach by Halsted's method. Vomiting ceased at once and the patient survived five weeks, and died of extension of the disease and exhaustion. He

had collected notes of fifteen cases which, with Mr. Jessett's seventeen, give total operations, thirty-two, with nine deaths. Mr. Ballance said in several cases the result was satisfactory for six or eight weeks, but then the opening into the stomach gradually closed. He had, with Mr. Edmunds, experimented on animals, and concluded that Paul's method was the best, a bone ring being inserted, uniting the jejunum with the posterior wall of the stomach, an opening in the anterior wall being made to permit this. He attributed the success to the fact that part of the stomach-wall sloughed away and left a large opening into the jejunum. This opening had not contracted in a large dog after several months. Mr. Symonds had given up Senn's plan in favor of lateral anastomosis. In one case, after using the plates the patient was as bad as ever in five weeks, and he reopened the stomach to find the aperture nearly closed. He enlarged the opening and sutured the mucous membrane at the edges. The opening closed again, so he did a third laparotomy and removed a piece of the gastric wall as large as half a crown. He then divided the jejunum, fastened the cut lower end into the hole he had made in the stomach, and made an opening into the jejunum further down and inserted into it the lower end of the duodenum. A good recovery resulted. Mr. Moullin had operated twice, once with Senn's plates and once with Robson's bobbins. Contraction occurred in the first case and regurgitation in both. Mr. Battle also liked Senn's method. Mr. Haward defended Senn's plates, especially as these cases were usually operated on late and it was necessary to operate rapidly. Mr. Gould had once opened the abdomen in the middle line, united the jejunum to the stomach as near as the growth permitted, then incised each viscus and united their cut edges by continuous silk suture, fixing the parts by a few Lembert stitches. The symptoms were relieved, but the patient died suddenly on the sixth day.

On the 30th ult. the Medical Society had a good subject for one of those chatty debates which seem at home in its rooms. "Some Neuroses Associated with the Menopause," was the title of a paper by Dr. Savage, founded on fifty-four cases of insanity of the "climacteric type." Dr. Richards, with twenty-five years' experience at Hanwell, could not subscribe to the author's view of the importance of the menopause, as the majority of insane women were admitted at an age which rendered it impossible; and even in insanity recurring at menstrual periods, the menopause produced no change for the better, though it substituted melancholia for acute mania. But he even doubted if the melancholy at this time were really due to sexual changes, seeing how that has been for years the prevalent type of insanity. Dr. Althaus said he knew of cases of which no explanation could be given except the disturbance due to the cessation of menstruation, and suggested a study of the mental condition of those who had undergone double ovariotomy. Dr. Griffith protested against this comparison, and said the conditions were not parallel, as at the menopause ovulation and menstruation are not simultaneously interrupted. He did not admit that the menopause could of itself affect the mental powers. Dr. Cullingworth, on the contrary, held that the precocious menopause induced by double ovariotomy was on all-fours with the normal change. He said few women altogether escaped some mental trouble at the menopause, but few came under the notice of the alienist, as they were not of a character to necessitate confinement in asylums. He had never known the removal of obviously diseased ovaries induce mental trouble. Dr. Routh suggested that alienists should systematically examine the reproductive organs of their female patients, but to this Dr. Savage in his reply objected, and remarked that in America, where lady doctors are connected with asylums for this purpose, no useful result has followed. Dr. Richards mentioned the case of a lady who became hopelessly insane after the removal of the ovaries, at the age of thirty three, for local disease, and he was convinced that the removal was the cause of the insanity.

Mr. Jonathan Hutchinson has always something to say, and he usually says it in an interesting manner. His post-graduate course is therefore a favorite one. Then he has during his career always been a collector, so that he has a great wealth of material for study. Again, he has classified his material so as to make it readily accessible. All sorts of facts (as well as specimens) he collected and classified, and twenty years ago it was a joke among his students that on any question they might ask he would take out of his pocket a handful of cards on one of which the answer would be found. This habit of collecting and classifying, inasmuch as his hospital—the London—is the largest in the metropolis, accounts for his wealth of clinical material and his ability to illustrate so many subjects. Wax models, drawings, casts, pickles, sections, instruments, nothing comes amiss to this omnivorous collector, and now he has taken a step which few would dare to do if they had the material. But Mr. Hutchinson is not the man to ask whether his compeers will like it, though he is "cute enough to know that the masses will." He has started a museum of his own in a building taken for the purpose, and there he intends to give his post-graduate course, and there, too, every medical man on presenting his visiting-card will be freely admitted any Tuesday afternoon, and when examining the illustrations will often have the advantage of a demonstration by their owner. His museum looks like a picture gallery of pathology, with a library or descriptive catalogue added. The pictures are set up on narrow ledges, so as to be easily moved and restored to their places. The books are really scrap books, a couple of hundred or more. Their contents are cuttings from journals and pamphlets, carefully indexed. Thus, on a subject for lecture a volume will be found to contain the current literature, and the illustrations are mounted on the ledges ready for comparison. At his regular demonstrations, too, Mr. Hutchinson likes to have living patients. At the last he had a case of congenital ichthyosis, a very severe one of bromide ulceration, and one of Bazin's disease. In a future letter I may give a few notes selected from his demonstrations.

Mr. Hensman, for some twenty years teacher of anatomy at the Middlesex Hospital, died on the 1st inst., after ten days' illness. He presided at the dinner on the opening of the session, though in rather failing health.

A NEW AND RAPID METHOD OF ANÆSTHESIA.

To the Editor of the Medical Record.

Sir: In the number of the Medical Record dated October 21st, there appeared an article with the above given title, by Dr. William S. Magill, of Chicago, in which he claims priority among American physicians in the use of bromide of ethyl for anæsthesia preceding chloroform or ether in major operations; also that "the method was devised and developed during the summer and fall of 1892, by Dr. Bourbon, Dr. Hartman," and himself at the Hospital Bichat.

The claims of originality, as expressed in the article above referred to, seem to lack foundation, as the same method of producing the anæsthetic state was extensively used and discussed thirteen years ago. In the *Medical and Surgical Reporter* of August 7, 1880, was published a paper on "Anæsthesia by Ethyl Bromide," by Dr. H. Augustus Wilson, of Philadelphia, to which was appended an elaborate bibliographical table containing references to the history, physiology, and uses of ethyl bromide, from which the following is an extract bearing upon Dr. Magill's paper: "After complete anæsthesia has been produced by ethyl bromide, I have found it practicable to continue anæsthesia by the use of sulphuric ether, which has the advantage, and at times the disadvantage, of keeping up the anæsthetic state a considerable time after the napkin has been removed."

It has been used quite extensively in this capacity by

Dr. D. Prince, of St. Louis.[1] The late Dr. R. J. Levis, of Philadelphia, as early as 1879 used bromide of ethyl extensively for preliminary anæsthesia when ether was to be used.[2] Dr. E. E. Montgomery has used it in this manner and has so reported at various times, so that Dr. Magill has, in reality, only redirected attention to a method that was formerly and extensively in vogue.

The profession will learn with pleasure the success attending the use of the drug in the hands of Dr. Magill, as it certainly seems to obviate some of the objectionable features of anæsthesia by the use of chloroform or (more especially) ether alone, and this correction is offered in the spirit of "Honor to whom honor is due."

Respectfully,

J. P. Rugh, M.D.

1431 Walnut Street, Philadelphia.

EXTIRPATION OF DISEASED PAROTID GLAND.

To the Editor of the Medical Record.

Sir: Having lately under my care a case of chronic enlargement of the parotid gland, in my search for information upon the subject I observed in "The Science and Art of Surgery," by John Eric Erichsen, with additions by John Ashhurst, M.D., etc., Philadelphia, 1869, under the caption of "Excision of the Parotid Gland," p. 823, the following: "I believe that in most, if not all, the cases in which it is stated that complete removal of this gland has been accomplished, tumors overlying and compressing it have been mistaken for it. It is evident that a diseased parotid gland could not be removed without the division of the external carotid artery and facial nerve."

Dr. Ashhurst's comment in a foot-note is: "So many cases have been reported by competent observers where the parotid gland is said to have been excised, that it is scarcely reasonable any longer to question the possibility of the operation. At the same time there can be no doubt that, as the author says, tumors exterior to the gland have frequently been mistaken for that organ itself, and extirpated by surgeons who honestly believed that they were excising the parotid."

Within the past few weeks a friend, one of the most eminent surgeons of this city, a teacher of surgery, in discussing this question said to me, it was very generally doubted whether the removal of this gland had ever been performed; but with this view he did not accord. I have seen this same doubt expressed in some of our prominent journals latterly.

In my late father's (Dr. Samuel B. Richardson, of this city) note-book of surgical operations performed by him, the following record appears:

"Extirpation of diseased parotid gland. Case No. ——. Mrs. Charles C——, a resident of city of Philadelphia. Married about six years. Leuco-phlegmatic temperament, inclining to fat, and is the mother of several children. Before leaving Philadelphia Mrs. C—— observed some enlargement and hardness, attended with occasional uneasiness and pain, in the region of the right parotid gland. The commencement of the disease was referred to about the year 1836–37.

"In the autumn of 1840 Mrs. C——'s case presented the following conditions: An unyielding, smooth, hard tumor, painful and tender on pressure, considerably elevated above the angle of the jaw, occupied the site of the parotid gland or parotidean region. The most elevated portion of the tumor was about the centre of a line drawn from the mastoid process of the temporal bone to the angle of the inferior maxillary bone The tumor extended upward in front of the ear and elevating its lobe, very like what is observed in acute parotitis when the swelling is greatest. It dipped also profoundly inward between the ramus of the lower jawbone and the mastoid portion of the temporal bone, and was nearly immovable to pressure made at any accessible point or in any direction. The head of the patient was permanently extended on the spine.

"Deglutition, and especially mastication, caused much increase of pain. Uneasiness and pain in the tumor as stated, had been, at intervals, felt since the enlargement was first observed—while these symptoms first led to the detection of the swelling. Within a few months, and especially weeks, the pain had been constant, and at times acute and lancinating, diminishing sleep and appetite, with consequent loss of strength and flesh. No other tumor or swelling found upon neck, or existing elsewhere. No transmitted tendency to malignant or other constitutional or local disease known, and the lady's health had always been good prior to the present malady.

"It should be added that the pain, although greatest in parotidean tumor itself, radiated forward to both jawbones and teeth, upward along the temple to the side of the head, backward to the neck and spine, and down the neck to the corresponding shoulder and arm, nearly paralyzing the latter at times. Few and simple had been the remedies prescribed or used by the patient.

"I informed Mrs. C—— and her friends that I considered the parotid gland as exclusively involved in the tumor, which diagnosis was established by professional friends before, at the time, as well as subsequent to the operation.

"Little if any good could be hoped from medicine—the reluctance of my patient to submit to the extirpation of the tumor advised, induced me, however, to place her upon a free and protracted course of iodine internally, as well as locally employed. This was continued at intervals for months, without appreciable diminution of the tumor. On the contrary, the patient considered the swelling, hardness, and pain as increased and increasing; her sufferings, in fact, were augmented.

"By February, 1841, constitutional irritation had become very great, with a corresponding diminution of appetite, flesh, and strength. Under this state of case, Mrs. C—— solicited an operation as the only alternative. This I consented to perform, first apprising her and her family of the nature and extent of it.

"February 19, 1841, the following operation was performed, with the concurrence and assistance of my friends Drs. Samuel D. Gross, Donne, and T. L. Caldwell, and in the presence of other professional friends and students. The patient was placed on an inclined plane, resting on a mattress, with the shoulders and head elevated, and the latter extended upon the spine. The operation was commenced by making a crucial incision through the skin and cellular tissues over the most elevated and central portion of the tumor. The first incision extended from a point about three-fourths of an inch in front of, and adjacent to, the superior attachment of the ear, downward to about two and a half inches below the angle of the lower jawbone. This cut was nearly vertical. The second was nearly at right angles to the first, with its centre over the greatest elevation of the tumor. The angles thus formed were freely dissected up, and a double hook passed through the capsule into the substance of the diseased body, and handed to an assistant. The skilful employment of the hook was of much service in facilitating the subsequent steps of the operation.

"The temporal and masseter portions of the tumor were first elevated. The diseased body was then drawn forward by the hook, and its connections and attachments adjacent to the concha, cartilage of the meatus externus, ligaments of the temporo-maxillary articulation, digastric and sterno-mastoid muscles, as well as the mastoid process of the temporal bone, separated, keeping the edge of the knife close to the latter to avoid the carotid artery, etc.

"The dissections were continued inferiorly and anteriorly behind the ramus of the jawbone, using the handle more than the edge of the knife, feeling for the pulsa-

[1] See Dr. E. E. Montgomery's article in Therapeutic Gazette, June 15, 1892.

[2] Philadelphia Medical Times, February 14, 1880.

tions of the carotid frequently, until this vessel was isolated near its entrance into the tumor. A double ligature was now passed under the external carotid and that vessel tied at two points half an inch apart, and divided between them. With the handle of the scalpel, and fingers mostly, the dissection was continued inferiorly about the deeper attachments of the body of the tumor.

"During this part of the operation the external jugular vein was constantly compressed by the finger of an assistant. The main trunk was not, however, divided."

JOHN B. RICHARDSON, M.D.

LOUISVILLE, KY.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending November 11, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	22	11
Scarlet fever	59	3
Cerebro-spinal meningitis	4	5
Measles	140	4
Diphtheria	189	53
Small-pox	5	2
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

A Surgeon's Nerve.—It is the common belief that a surgeon must possess what is spoken of as an extraordinary good nerve, and you may perhaps doubt if you possess this. At the same time you must bear in mind that in the case of a surgeon the coolness or calmness which is so admirable and necessary in an operation does not imply the possession of any remarkable personal quality, but it is the simplest result of a complete knowledge of what he is doing. It is rather the natural outcome of his accurate familiarity of anatomy and his daily habit. A trooper would require a very fine nerve to go to a masthead, or a sailor to ride an unmanageable horse across a country; but a sailor's confidence aloft is due more to a matter of habit than to any particular amount of courage. In saying this, I do not wish to depreciate the calmness of the surgeon in the face of difficulties, but I may tell you quite plainly that if you haven't enough courage to be a surgeon I should be very much ashamed of you, and you would turn out to be a very poor creature, whatever occupation you might follow. Still this fact remains, and you may, perhaps, be interested to hear that I, who have known many good surgeons, have never seen one who has not possessed a very fine courage. In short, a very good surgeon is, in my humble opinion, a very fine fellow, and when I see (as I do see) the extraordinary achievements of modern surgery, I am very proud of belonging to a profession which has made life so much more endurable and prolonged to the human race. So, possibly, the great fascination which surgery no doubt possesses to many, appeals more strongly to men of courage and determination than to those persons of more weakly constituted minds, or to those who are less vertebrate altogether.—*Longman's Magazine.*

The First Professional Organization.—Norwich Doctors Wanted a Medical Practice Act in 1774.—The Medical Practice Act suggests the historical fact that the first step toward professional organization and protection in Connecticut was taken by Norwich physicians, March 3, 1774. On that date the following advertisement appeared in reference to the project: "A number of Physicians in the County of New London, taking into consideration the importance of those that enter the practice of Physick being endued with competent knowledge to prosecute the undertaking in such a manner as shall best promote the public good, request their brethren of the Faculty in said County to meet at the house of Mr. Azariah Lathrop, in Norwich, on Thursday the 24th inst., at ten o'clock in the forenoon, to consider upon the matter and prefer a Memorial to the General Assembly at their next Session, that the Practice of Physick may be put under some better regulation." This memorial, which was signed by Theophilus Rogers and ten other physicians, was the first movement toward medical organization in Connecticut. "Quacks and charlatans" had disgusted the regular physicians, and their demand was for the appointment of a committee legally authorized to examine and approve candidates, if found qualified. The movement, which was in advance of the age, was negatived in the lower house; but the memorialists were the pioneers in the cause of American medical organization, and their unsuccessful first attempt was the initiative step in a series of efforts which have since resulted in the permanent establishment of flourishing State and National Associations, which separate the qualified physician from "the ignorant pretender."—*Norwich* (Conn.) *Bulletin*, October 9, 1893.

Inoculations in Typhoid Fever.—Dr. E. Fraenkel reports a number of cases of typhoid fever treated by gluteal injections of cultures of the typhoid bacillus. The virulence of the bacteria was diminished by cultivation in thymus-bouillon. After three days in the warm closet the cultures were sterilized by heating to from 61° to 62° C., and the sterility proved before their employment. The charts and cases are not published in detail, but Dr. Fraenkel is of opinion that the treatment modified and materially shortened the course of the fever, though it did not prevent relapses or accidental complications. The number of cases thus treated was fifty-seven. Professor Rumpf publishes in the same paper thirty-six cases of typhoid fever treated by gluteal injections of cultures of bacillus pyocyaneus. The course of the cases indicated that the treatment had very much the same effect in modifying and in shortening the fever as was produced by Fraenkel's cultures of the typhoid bacillus.—*The Lancet.*

Serum Injections in Tetanus.—Professor Moritz publishes a case of a boy, aged twelve years, suffering from tetanus, treated by injection of Behring's serum. The cause of the tetanus could not be ascertained. The case was a fairly severe example of the more chronic form of the disease, and ended in recovery.

Right to Use Geographical Names for Mineral Waters.—Whether a geographical name may become a trade-mark, when adopted as such, where its owner is the owner of the place of origin, and has the monopoly of the vendible product, is an open question. But where a person alleges title to all the mineral springs situated in a certain place, and the exclusive right to the sale of the waters thereof, and that the name, as applied to said waters, has become of great value to him, and has always constituted an important and necessary incident and means to the sale of said waters, that such a name may be so used, and will be protected against infringement by other persons not obtaining their product from the same locality, is well settled. So says the United States Circuit Court in the case of La République Française v. Schultze, decided July 3, 1893, just now reported, 57 Fed. Rep., 37, where it holds that the word "Vichy," used in connection with mineral waters, and derived from the locality in France where the waters are obtained, is a trade name, or "nom commercial," within the meaning of the industrial property treaty with France of 1883, and as such is entitled to protection in the United States, though it has not been deposited as required by the treaty in the case of trade-marks.—*Journal of American Medical Association.*

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Original Articles.

REPORT OF SEVENTY CASES OF INTUBATION.[1]

By RICHARD J. STANTON, M.D.,

NEW YORK.

My first practical experience with intubation was through the courtesy of Dr. William P. Northrup. On the evening of October 8, 1886, Dr. Northrup called and asked me to assist him in intubating a child suffering from croup. As I had already read several articles which had appeared in the various medical journals upon the then new operation of intubation, I was very much interested in the subject, and was only too glad to render Dr. Northrup whatever slight assistance might lie in my power. I remember the case very well. It was that of a foundling child of about two years. We could hear the peculiar, typical croupous respiration before entering the room. We examined the child carefully, and found recessions of the chest-walls, absence of vesicular murmur, restlessness, some cyanosis of the lips and around the mouth; in short, it was a typical case of laryngeal stenosis demanding immediate operation. The child was seated in the nurse's lap and the tube was introduced by Dr. Northrup, while I steadied the patient's head. The neatness, swiftness, and skilfulness with which the operation was done excited my admiration, while the immediate relief which the operation afforded was intensely gratifying to us both. The child, which before the operation had been sleepless, restless, and suffering tortures, was, before we left the house, sleeping quietly, the stenosis having been completely relieved. Although this child afterward died, still the success of the operation itself in relieving suffering, even though it failed to save the life, made a profound impression upon me, and I resolved to try it myself at the first opportunity. Since that time I have intubated some 70 cases. Of the 70 cases, 46 terminated fatally, while 24 ended in recovery, the percentage of recoveries being $34\frac{3}{7}$. With but two exceptions, all were tenement-house cases. I mention that fact because I believe that, other things being equal, the tenement-house patient has less chance for recovery than has the private house patient, for the reason that the latter is more liable to have advantages in the way of better treatment, more skilful nursing, and better hygienic surroundings. Of the 46 deaths, 14 were caused by the extension of the membrane to the bronchi, 5 were caused by sepsis, 4 each by asphyxia and pneumonia, 3 by uræmic convulsions, and 2 each by exhaustion, pulmonary œdema, nephritis, and bronchitis.

In the four cases which died of asphyxia the causes were as follows: Case 52, the tube was inserted all right but did not relieve the dyspnœa; in fact, instead of being relieved it became worse, so much so that the tube had to be taken out. I have no doubt that in introducing the tube some membrane was carried down before it, thus increasing the difficulty it was sought to relieve. This was a boy five years of age and among the vilest and filthiest surroundings, with parents as ignorant as beasts. The boy had been abandoned to die by his attending physician, and as a last resort I was sent for. Just as I entered the room where he was, he was vomiting up a mess which I was told was beer and bretzels which he had been eating. On inquiring about the boy's urine, the mother declared that he had passed none for two days, while the father declared it was but one day. As the intubation did not seem to help him, I proposed to the parents to have him sent at once to the Willard Parker Hospital, where he could be tracheotomized, as I would not think of performing it amid such surroundings; but the parents declined the offer, and the little sufferer died a few hours afterward.

Case 53 was very much similar to the one just described. The fauces were filled with a soft, friable, pultaceous mass of diphtheritic membrane, and when the tube was inserted it was not followed by any improvement, so was soon taken out. The surroundings were not encouraging for the success of a tracheotomy, the bare mention of which seemed to be quite enough for the parents. That child also died after a few hours.

Case 58 I left doing very well after the intubation. I had left the string attached to the tube, as I suspected loose membrane. When I next heard of the case the child was dead. It had pulled the tube out and had died before the parents notified the attending physician.

Case 63 was somewhat similar to the above case. Child was intubated at 11 P.M., leaving string in tube. At six o'clock next morning I was sent for, and found the boy moribund and all but dead on my arrival. I inserted a tube at once, but the boy did not rally and died in a few minutes. I was told that he had quieted down and slept nicely after the intubation, but at one in the morning he had pulled the tube out, fell asleep again, sleeping until five o'clock, when the dyspnœa returned and progressed so rapidly as to cause death within an hour. I was very much disappointed at the outcome of this case, as I had regarded it as a very favorable one. I have mentioned these cases in particular because they were interesting in themselves, and because one does not expect his cases to die of asphyxia in intubation unless something unusual occurs.

The greatest number of deaths were caused by the extension of the membrane to the bronchi. That occurs in tracheotomy as well as in intubation, and would occur more frequently in cases not operated on, were it not for the fact that the latter cases are choked to death before the membrane has time to reach the bronchi.

Of the two cases who died of pulmonary œdema, one I place in the column of failures with very great reluctance, because I feel as if it ought to be recorded as a success, as it did not die of the original sickness. It is Case 2, an Italian child aged three years and ten months, intubated January 5, 1887, with immediate and complete success, as far as relieving the dyspnœa is concerned. The child progressed favorably with no bad symptoms until January 12th, when the tube was extracted, leaving her with a normal pulse, temperature, and appetite, and feeling apparently well. Four days later I was again called to find her lungs œdematous and her general condition very bad. She died next day. I believe the œdema was caused by paralysis of the respiratory muscles which had set in suddenly, paralysis of certain muscles or sets of muscles being not unusual after diphtheria. Of the cases operated upon, 42 were males and 27 females, there being one case whose sex I did not get. Fifteen males recovered, about thirty-five per cent., while 9 females recovered, about thirty-three per cent. Their ages ranged from ten months to seven years. The youngest successful case was fourteen months, the oldest was six years; the average age of the successful cases being about three years and five months. Of the cases intubated three were afterward tracheotomized.

[1] Read before the Harlem Medical Association, October 4, 1893.

Case.	Date.	Doctors in consultation with.	Sex.	Age.	Duration before intubation. Croup.	Duration before intubation. Pharyngeal diphtheria.	Urine.	Cause of death.	Complications before intubation.	Result.
1	Nov. 24, 1886..	E. Fleming	M.	2 yrs., 4 mos..	3 days..	None.....	No albumin...	.....	.....	Recovered. Wore tube 5 days, 18 hours.
2	Jan. 5, 1887...	E. Fleming	F.	3 yrs., 10 mos.	1 day	Present	Albumin.....	Pulmonary œdema.	Rubeola ...	Died 5 days after tube was removed.
3	June 27, 1887..	Jas. L. Bailey	F.	5 years.....	Unknown.	Nooe.....	Albumin.....	.....	.....	Recovered. Wore tube 5 days, 5 hours.
4	June 27, 1887..	H. M. Cox	M.	3 years.....	2 days ..	Present	Not examined.	.....	.....	Recovered. Coughed tube out on seventh day.
5	July 11. 1887..	E. Fleming.	F.	2 yrs., 5 mos	1 day .	None.....	Not examined.	Pneumonia..	Pneumonia ...	Died 3 days, 2 hours after intubation.
6	July 19, 1887..	E. Fleming.....	M.	4 yrs., 9 mos..	1 day	4 days	Albumin.....	.....	.....	Recovered. Wore tube 8 days, 14 hours.
7	Aug. 7, 1887..	A. J. Billhoefer.....	F.	19 months....	1¾ day ..	5 days	Not examined	Exhaustion..	Diarrhœa	Died 2 days, 19 hours after intubation.
8	Aug. 21, 1887	H. Goldman	F.	2 years.....	1 day	None.....	Not examined.	.....	.....	Recovered. Wore tube 6 days, 5 hours.
9	Sept. 13, 1887..	Ford and Fleming	F.	2 yrs., 7 mos..	Unknown.	Present	Not examined.	Sepsis.....	.....	Died 20 hours after intubation.
10	Sept. 25, 1887..	E. Fleming.....	M.	4 years.....	2 days....	Present	No albumin...	Extension to bronchi.	.....	Died 2 days, 20 hours after intubation.
11	Oct. 3, 1887...	S. W. Clason.....	F.	15 months	Unknown.	Nooe.	Not examined.	Extension to bronchi.	.....	Died 21 hours after intubation.
12	Oct. 6, 1887...	Bailey and Fleming...	M.	3 yrs., 6 mos..	Unknown.	Present	Albumin.....	.....	.....	Recovered. Wore tube 14 days.
13	Oct. 8, 1887...	E. Elsner.....	F.	2 years.....	2 days....	Present	Not examined.	Extension to bronchi.	.....	Died 2 days, 3 hours after intubation.
14	Oct. 12, 1887..	E. Fleming.....	M.	5 years.....	Unknown.	Present ...	Albumin.....	.....	Pneumonia ...	Recovered. Wore tube 7 days, 10 hours.
15	Oct. 17, 1887..	E. Fleming	F.	7 years.....	1 day	Present	Albumin.....	Nephritis...	Nephritis and scarlatina.	Died 11 hours after intubation.
16	Jan. 28, 1888..	H. F. Mayer	M.	4 yrs., 6 mos..	2 days....	7 days ..	No albumin...	.....	.....	Recovered. Wore tube 2 days, 4 hours.
17	Feb. 9, 1888...	F. Amabile	F.	22 months ..	Unknown.	Unknown...	Not examined.	Pneumonia..	Pneumonia ...	Died 28 hours after intubation.
18	Feb. 9, 1888...	F. Amabile	M.	4 years..	2 days....	None.....	Not examined.	.....	.....	Recovered. Wore tube 7 days, 16 hours.
19	March 17, 1888.	E. Fleming.....	M.	3 yrs., 10 mos.	19 hours..	None....	Albumin.....	Extension to bronchi.	.....	Died 3 days, 23 hours after intubation.
20	March 27, 1888.	Ford and Bailey	..	16 months	... .	3 days .	Not examined.	Sepsis.....	.....	Died within 24 hours after intubation.
21	Nov. 21, 1888..	Joseph O'Dwyer.....	M.	3 yrs., 10 mos.	17 hours..	5 days	Albumin.....	.....	.....	Died 20 hours after intubation.
22	Dec. 30, 1888 .	J. L. Bailey	M.	17 months	16 hours..	.....	.....	Extension to bronchi.	Rubeola	Died. Wore tube 3 days, 17 hours.
23	Jan. 7, 1889...	J. L. Bailey	M.	7 years.....	24 hours..	7 days	Albumin.....	Exteosion to bronchi.	Rubeola	Died 3 days, 6 hours after intubation.
24	Jan. 10, 1889..	F. H. McDonald.. ...	M.	2 yrs., 4 mos	16 hours..	.....	.....	.....	.....	Died 23 hours after intubation.
25	Jan 23, 1889...	J. L. Bailey	F.	3 yrs., 4 mos..	16 hours..	4 days	.....	.....	.....	Recovered. Wore tube about 6 days.
26	Feb 13, 1889..	Joseph O'Dwyer	M.	3 yrs., 9 mos..	20 hours..	3 days	Albumin.....	.....	.....	Recovered. Wore tube about 5 days.
27	March 8, 1889..	F. L. Michel and J. R. Nilsen	M.	4 years.... ..	36 hours..	3 days	.....	.....	.....	Died 3 days, 4 hours after intubation.
28	May 18, 1889.	Neff and Elsner.... .	F.	2 yrs.. 4 mos..	.....	.....	Albumin.	.....	.....	Recovered. Wore tube about 6 days.
29	June 29, 1889..	H. M. Cox	M.	4 yrs., 9 mos..	24 hours..	5 days	Albumin.....	.....	.....	Recovered. Wore tube 4 days. 20 hours.
30	July 20, 1889..	L. K. Neff.....	F.	3 yrs., 6 mos..	2 days ...	7 days	.....	Extension to bronchi.	.....	Died 3 days after intubation.
31	July 26, 1889..	E. Elsner.....	F.	4 years	24 hours..	7 days	Albumin.....	.....	.....	Recovered. Wore tube about 16 days.
32	Aug. 10, 1889..	F. L. Michel.... ..	M.	14 months.....	36 hours..	2 days	...	...	.....	Recovered. Wore tube 5 days. 10 hours.
33	Oct. 7, 1889...	H. M. Cox	F.	3 yrs.. 3 mos..	2 days ..	2 days	.....	Pulmonary œdema.	.....	Died 22 hours after intubation.
34	Oct. 13, 1889..	F. H. McDonald.. .	M.	3 yrs., 9 mos..	36 hours..	2½ days	.....	Extension to bronchi.	.....	Died 2 days, 5 hours after intubation.
35	Dec. 22, 1889.	Jas. L. Bailey	F.	2 yrs., 7 mos..	17 hours..	7 days .	.....	Extension to bronchi.	.....	Died 6 days after intubation.
36	Jan. 1, 1890...	Jas. O'Brien...	F.	6 years.....	24 hours..	2 days	Albumin.....	Sepsis.....	.....	Died 2 days, 8 hours after intubation.
37	Feb. 19, 1890..	A. H. Leary	M.	7 years.....	2 days. ..	5 days	None.....	Bronchitis ..	Bronchitis	Died. Wore tube 1 day, 6 hours.
38	Feb. 28, 1890..	J. L. Bailey.	M.	3 yrs., 10 mos.	2 days....	7 days	Albumin.....	Bronchitis ..	Bronchitis	Died 3 days, 19 hours after intubation.
39	March 19, 1890.	F. H. Mcdonald.... .	F.	2 yrs., 8 mos..	20 hours..	3 days	Albumin.....	.....	.....	Recovered. Wore tube 4 days. 7 hours.
40	April 2, 1890...	Jas. O'Brien..... ..	M.	3 yrs., 2 mos..	1 day	2 days	.....	.....	.....	Died 19 hours after intubation.
41	July 23, 1890..	A. H. Leary.....	F.	2 yrs., 1 mo...	1 day	2 days	.....	Extension to bronchi.	.....	Died 1 day, 19 hours after intubation.
42	Sept. 22, 1890.	J. A. Bailey	M.	18 months.....	1 day	3 days	.....	Extension to bronchi.	.....	Died 3 days, 2 hours after intubation.
43	Sept. 23, 1890.	J. A. Bailey	M.	6 years.....	12 hours..	3 days	.....	Uræmic convulsions.	Nephritis. ...	Died directly after intubation.
44	Nov. 2, 1890...	E. M. Fleming.... .	M.	21 months....	20 hours..	3 days .	.....	.....	.....	Recovered. Wore tube about 10 days.
45	Dec. 6, 1890...	E. M. Fleming.... ..	M.	6 years.....	3 days....	4 days	No albumin...	.....	.....	Recovered. Wore tube 4 days.
46	Feb. 7, 1891...	E. M. Fleming.... ...	F.	2 yrs., 8 mos..	3 days....	5 days	.....	Pneumonia..	Pneumonia ...	Died. Wore tube 2 days, 1 hour.
47	March 18, 1891.	C. O. Taylor....	M.	2 yrs., 6 mos..	30 hours..	3 days	Albumin.....	Uræmic convulsions.	Nephritis.....	Died 1 day, 2 hours after intubation.
48	May 20, 1891...	E. Fleming.....	M.	3 yrs., 2 mos..	1 day	36 hours.....	.....	.....	.....	Died 11 hours after intubation.
49	Aug. 6, 1891...	L. Rosenberg	M.	4 yrs., 2 mos..	1 day	2 days	Albumin ..	Uræmic convulsions.	....	Died 5 days, 20 hours after intubation.
50	Aug. 13, 1891..	J. L. Bailey	F.	10 months.....	1 day	3 days	.....	.....	.....	Died 11 hours after intubation.
51	Aug. 20, 1891..	C. O. Taylor.....	F.	22 months.....	36 hours..	2 days	.....	.....	.....	Recovered. Wore tube 4 days.
52	Feb. 10, 1891..	....	M.	5 years	3 days....	6 days	.....	Asphyxia...	.....	Died.
53	April 9, 1891..	E. Fleming...	M.	5 yrs., 10 mos.	3 days....	4 days ..	.....	Asphyxia...	.....	Died.
54	June 15, 1891..	Wm. O'Meagher... ..	M.	2 years ...	.....	.....	.....	Nephritis...	Scarlatina ...	Died.
55	Oct. 23, 1891..	J. Lyon.....	M.	3 yrs. 4 mos..	4 days....	6 days	Not examined.	Exhaustion..	Pneumonitis ..	Died 21 hours after intubation.
56	Oct. 30, 1891..	Jas. B. Healey. ...	M.	3 yrs., 7 mos..	24 hours..	4 days	Not examined.	Extension of membrane.	.....	Died 24 hours after intubation.
57	Nov. 16, 1891..	H. Williams	F.	2 yrs., 2 mos..	36 hours..	3 days	Not examined.	.....	.....	Recovered. Wore tube 3 days, 10 hours.
58	Dec. 14, 1891..	A. J. Billhoefer	M.	16 months.....	24 hours..	2 days	Not examined.	Asphyxia...	Tube pulled out and not reinserted.	Died 7 hours after intubation.
59	Jan. 15, 1892..	H. M. Cox	F.	2 years.....	.....	.....	Not examined.	Pneumonitis.	Pneumonitis ..	Died 24 hours after intubation.
60	March 15, 1892.	John Dwyer.....	M.	2 yrs., 8 mos..	24 hours..	2 days	Albumin.....	Sepsis and exhaustion.	.....	Died 6 hours after intubation.
61	April 30, 1892.	J. A. Bailey	M.	2 yrs., 10 mos.	3 days....	6 days	Not examined.	.....	.....	Recovered. Wore tube 5 days.
62	July 2, 1892...	Ed. Fleming.....	M.	2 years.....	36 hours..	4 days	Not examined.	Extension of membrane.	.....	Died 5 hours after intubation.
63	Aug. 1, 1892...	J. Lyon.....	M.	5 yrs., 4 mos..	18 hours .	.....	Not examined.	Asphyxia...	Tube pulled out and not reinserted.	Died 7 hours after intubation.

Case.	Date.	Doctors in consultation with.	Sex.	Age.	Duration before intubation.		Urine.	Cause of death.	Complications before intubation.	Result.
					Croup.	Pharyngeal diphtheria.				
64	Jan. 19, 1893..	S. W. Clason	F.	3 years	2 days....	3 days	Not examined.	.....	.....	Recovered. Coughed tube out 2 days after.
65	Jan. 25, 1893..	Harlem Hospital Staff.	M.	2 yrs., 11 mos.	36 hours..	.....	Not examined.	.....	Rubeola	Recovered. Wore tube 3 days, 20 hours.
66	Feb. 15, 1893..	Shonger.....	M.	5 yrs., 4 mos..	2 days....	6 days	Albumin.....	.....	.....	Recovered. Wore tube 3 days, 10 hours.
67	April 25, 1893.	E. Fleming.....	M.	5 yrs., 10 mos.	.....	.....	.....	.....	.....	Died.
68	July 5, 1893...	T. J. Larkin	F.	21 months.....	24 hours..	4 days	Not examined.	Extension of membrane.	.....	Died 7 hours after intubation.
69	July 14, 1893..	E. Fleming.	M.	22 months.....	.....	.....	Not examined.	Sepsis.....	.....	Died 24 hours after tracheotomy.
70	Aug. 25, 1893	T. J. Larkin.	F.	4 yrs., 4 mos..	12 hours..	7 days	Not examined.	.....	.....	Died on operating-table (tracheotomy).

Case 38, intubated February 28, 1890. Did very nicely until the evening of March 4th, when I was called at 7.30 P.M. and found him again suffering from severe dyspnœa, with chest recessions and the usual train of symptoms caused by laryngeal stenosis. On listening, the flapping of a piece of loose membrane could be distinctly heard against the lower end of the tube, acting as a valve, opening on inspiration and closing the tube on expiration. The tube was immediately extracted and the patient given whiskey to excite coughing, with the hope that it would cough up the loose piece of membrane; it was also given an emetic, but in vain; in five minutes it had grown frightfully cyanotic, and it was deemed wisest to reintroduce the tube, which was done with the result of again relieving the dyspnœa. The string was left in this time and instructions given to pull the tube out should any necessity arise for it. At 8.30 next morning Dr. James L. Bailey, the attending physician, called on me and reported that the child had done fairly well until on toward four o'clock in the morning, when it was again seized with a severe attack of dyspnœa, followed by cyanosis and necessitating the extraction of the tube; it did not rally very well and was then nearly dead. The child had coughed up no more membrane, so I concluded that it was the loose piece which we had heard the day before which was causing all the trouble. I advised immediate tracheotomy and was sent for as soon as the consent of the parents could be obtained for the operation. The child was cyanotic and all but dead as it was laid on the operating-table, and twice during the operation the knife had to be laid aside to perform artificial respiration, as breathing had ceased entirely. After the trachea was opened and the tube inserted, artificial respiration was kept up for about ten minutes before the child had recovered enough to breathe without assistance. We left him breathing softly and naturally, and feeling much better, as he said himself. Five hours later I was sent for in haste, and on my arrival found Dr. Bailey trying to check a hemorrhage which had suddenly developed in the throat wound; in spite of our efforts the child was dead in a few minutes, the blood having run into the trachea and strangled the child. It was a very disappointing end to what I had begun to consider a very hopeful case. I omitted to mention that on donning my overcoat after the tracheotomy, I found clinging to it a piece of fresh, tough, diphtheritic membrane about the size of a silver dime, which had been coughed up when the trachea had been opened, and thrown clear across the room to where it was found on the coat. This piece of membrane was the undoubted cause of all the recent trouble. On thinking over this case I must say, that I do not remember why I did not again try intubation before resorting to tracheotomy. In the light of my later experience, I believe that I should have done so.

Cases 69 and 70 were also tracheotomized. One case was a most malignant case of diphtheria, both nasal, pharyngeal, and laryngeal. It was a child aged twenty-two months, the glands of the neck were immensely swollen, the opening to the throat completely occluded by the inflamed tonsils which met in the middle, while the whole fauces were covered by a foul mass of putrescent membrane. The attending physician, Dr. Edward Fleming, had recognized at once that it was not a favorable case for intubation, and that tracheotomy would, no doubt, do more for it. While we were making preparations for the operation the child to all appearance died. Its eyes were set and glassy, respiration had ceased entirely, and there was no pulse to be felt at the wrist. I must confess that I felt just a trifle relieved at this, for it was a hopeless case at best, and it almost seems as if it is merely bringing an operation into disrepute to operate in such hopeless cases; however, I bent down to listen to the heart and detected some faint flutterings of that organ. Thrusting my fingers into the child's mouth and pulling the tongue forward, the child gasped, and immediately I began artificial respiration, while Dr. Fleming got a tube ready to introduce. In my hurry I did not attach a thread to the tube, and in attempting to get it into the larynx, I got it into the œsophagus and lost it, thereby illustrating the old proverb, the "more hurry the less speed." Fortunately, I had another tube of the same size which Dr. Fleming very speedily had threaded and ready to introduce. This time I was more successful and got it in at once. In the meantime artificial respiration had been kept up, but with no aid from the child. After a few minutes we had the satisfaction of feeling a slight return of the pulse at the wrist. It then received several hypodermics of whiskey which served to increase the heart's action; however, with all our work the child was not able to keep up respiration if left alone, the epiglottis would drop back over the aperture of the tube, and besides there was no place for the air to get through as both the nares and fauces were completely occluded. It having been necessary, while practising artificial respiration, to keep the finger constantly in the child's mouth and by crowding aside the swollen tonsils thus provide a small space to admit the air. As we had gone so far, we decided to carry out our original intention and perform tracheotomy. We sent for chloroform but did not use it, as the child was in as complete a state of anæsthesia as could be produced by artificial means. Owing to the swollen state of the surrounding parts, it was not an easy matter to get to the trachea and introduce the tube, but finally both were accomplished to our complete satisfaction. After a while respiration began to be established, and before we left the house the child was sleeping as softly and peacefully as if nothing was the matter with it. Its color had returned and its pulse was quite strong. At six o'clock the next morning I was called to see it, Dr. Fleming being engaged on another case. I found the child's neck enormously swollen and a temperature of 105° F. It had slept well until about 3 A.M., when it began to get restless, and continued so until my visit. It had succeeded in swallowing some milk out of a bottle in the meantime. The respiration was perfect. I gave it a little tinct. opii. deod. and some digitalis to quiet it. At 11 A.M. called again with Dr. Fleming, and we found the boy resting somewhat easier, but taking less nourishment. At five that afternoon it died of sepsis, the malignancy of the disease having proved too much for it, after having lived some twenty-six hours after the operation. It was a very interesting case. I had heard, here-

tofore, some very improbable yarns about dead children being brought back to life by doctors, but after my experience with this case I felt as if I could believe almost anything.

The third case which demanded tracheotomy was in the practice of Dr. T. J. Larkin, and was a little girl four years and four months of age. The introduction of the O'Dwyer tube was not followed by any signs of relief, because I think that the membrane was too far down in the trachea. It was then decided to tracheotomize. The condition of this little patient was pitiable in the extreme; in its efforts to obtain air it tore its little shirt from its throat and handfuls of hair from its little head. It was put at once under the influence of chloroform, and the trachea reached and opened as soon as possible. There was but very little blood lost during the operation, in fact almost none to speak of, and yet almost immediately after the trachea was opened the child ceased to breathe, and although we tried artificial respiration vigorously for some time, we never succeeded in getting it to give a single gasp. It was as dead as if struck by lightning. What the cause was I do not know. I do not think that the chloroform had anything to do with it, as it was in capable hands and was carefully given. It may be that, as the trachea was opened the child took an inspiration and drew into the lungs a piece of membrane which might have become detached through the operation, thus cutting off respiration at once and completely; or it might have been due to heart failure pure and simple. Whatever the cause, it was a very distressing and embarrassing accident to have happen under the circumstances; however, we had done our duty as we saw it, to the best of our ability, and had nothing to reproach ourselves with.

In regard to the numerous accidents, both theoretical and practical, which are said to be peculiar to intubation, on looking over my list of cases I must conclude that I have been singularly fortunate in escaping most of them. Some, however, I have experienced. In three cases the tube went down into the stomach instead of the larynx. One of these has already been detailed as a tracheotomy case. Another was that of a boy three years of age, whom I saw in consultation with Dr. H. M. Cox. I had introduced the tube, but was not sure whether it was in the larynx or not. I left the thread hanging from his mouth, and on turning away my head for an instant the thread disappeared like a flash and the boy had swallowed the tube. I introduced another and the boy went on to recovery. The wandering tube was passed on the fifth day, none the worse for its journey.

The third case was also that of a boy four years of age. I had passed the tube into the œsophagus, and on attempting to pull it out the thread broke and the tube was swallowed. Another tube was immediately introduced, but the boy died two days ten hours after the operation. The tube was passed the second day after being swallowed.

Tube swallowing can be avoided by the exercise of ordinary care on the part of the operator, but it is an accident of but little consequence anyway, unless one has no other suitable tube at hand to replace it. A more serious accident is the falling of the tube down through the ventricular bands into the larynx. One case of that kind happened in my practice. The case was a very interesting one, and its recital will no doubt prove instructive to those practising intubation. On the morning of November 21, 1890, I was called to see a twenty-one months baby living in a tenement-house on 106th Street. It had been sick for four days, and on my arrival I found that the sickness had already progressed so far as to demand instant surgical interference. With the assistance of Dr. Edward Fleming the child was intubated at noon and the distressing dyspnœa at once relieved. The child was also put on $\frac{1}{48}$ grain hourly doses of bichloride of mercury. At seven o'clock that evening I saw the patient again. Its temperature was 102° F.; respiration 64, and unobstructed; but the lungs contained many moist râles. Next day (November 3d), I was told that it had had a fairly good night. It was looking better and the temperature had gone down to normal, with the respiration 34. It was taking a reasonable amount of nourishment also. I believe it was still nursing. The bichloride was continued. On the 4th, at my visit, was told that the child had a rather restless night, its temperature had gone up to 100.5° F., respiration to 44, but free and easy, and lungs still pretty full of râles. On the 5th, it had a much better night, respiration perfect with lungs clearing up, and a temperature of 100.5° F. still. November 6th, saw it in about the same condition, sleeping very well and improving in its general condition, which it continued to do on November 7th and 8th, although its temperature still stayed at 100.5° F. On the 8th, I concluded to take out the tube, and with the assistance of Dr. Fleming, attempted to do so. The tube had then been in just six days. I made several ineffectual attempts to get it. All at once I became aware, to my horror, that I could feel no signs of the tube whatever under my finger. That was an extremely unpleasant discovery. I probed again in through the glottis with the extractor, but could feel no signs of a tube. I then told the mother that I thought we would postpone further operations until the next day, as I did not wish to tire the child too much. I left the house in no easy frame of mind, and very much provoked at myself at my want of skill. I was in a quandary and scarcely knew what to do about it, but at once sought the advice of Professor O'Dwyer. After I had stated the case to the doctor he smiled very significantly, and asked if I was sure that the tube was in the child's throat, reminding me of a time when I had called on him on a similar errand, thinking the tube had slipped down into a child's trachea, when it was afterward found under a bed, where it had been thrown by the child who had coughed it up. I assured the doctor that this time there was no mistake, that the tube was surely in the child's larynx and I could not get it out. His advice was to leave it where it was and await developments, at the same time kindly assuring me that he would be glad to help me in case I needed any assistance. I called that evening on the patient, and found it in excellent condition, with temperature normal and respiration perfect, and taking nourishment without any difficulty. It coughed now and then, however, and the cough had that peculiar metallic sound denoting the presence of the tube in the larynx. The next day, November 9th, I called at nine in the morning and learned that it had passed a very good night, having slept well. Its condition was good, temperature normal and respiration perfect, and lungs free from râles. At nine that evening the mother of the child called on me, saying that she thought the child had grown considerably worse, that it had coughed much more frequently, and seemed distressed for lack of air. I visited the child at once and found him sleeping, but the respirations were 40 a minute, and there was dyspnœa with recessions of the chest-walls. The temperature was 102¼° F., and the pulse was of that peculiar nature that one gets where respiration is obstructed from any cause, where it seems to be drawn away from the wrist at each inspiration. I sent for Professor O'Dwyer at once, who was kind enough to respond immediately. At first he was rather sceptical about the presence of a tube in the throat at all, for the cough and breathing had lost that peculiar metallic vibratory sound which it had hitherto possessed. The reason for that was that the tube, which before had hung loosely in the larynx, was now wedged down tightly by force of gravity and by the swelling of the surrounding tissues, so that it had lost the power of vibrating. However, the doctor quickly prepared another tube, and placing the child in position, had the old tube out and the new one in in less time than I take to tell it. It was the most skilful and dexterous performance that I have ever seen, its lightning-like rapidity resembled a sleight-of-hand performance more than anything else. In a few minutes more the baby was again asleep in its cradle with all signs of dyspnœa gone. The

thread was left in the tube this time to guard against any further mishaps. On my morning visit next day, November 10th, I was told that he had had a very good night, sleeping most of the time, respiration full and easy, temperature 101.5° F., and lungs apparently normal. He was getting no medicine whatever at this time. On the 11th, I was told that the child had pulled the tube out at eleven o'clock the previous evening, but it had had a fairly good night nevertheless, although the respiration was not unobstructed. At this visit I found some crepitant râles at the base of the right lung. On the 12th, I found that the child had had a restless night, its temperature was 101¾° F., and respiration 60 a minute. There was dulness over the base of the right lung, and it had developed a frequent croupy cough. I ordered a stimulating cough mixture and had the lung poulticed. There was also some laryngeal obstruction at this time. At 3 P.M. I was sent for, the laryngeal stenosis having increased so much that it was now as bad as it had been originally. There was nothing to do but to reintubate, which was done at once, which relieved the dyspnœa immediately and completely, and shortly after the child fell into a sleep. At my evening visit the child was still sleeping quietly. Next morning I learned that the tube had been coughed out at nine the previous evening, but that the child had slept good nevertheless; there was still some laryngeal stenosis, but not marked enough to need a tube. This gradually wore away. From this time on, that is, from November 13th to November 19th, the case resolved itself into one of simple pneumonia, from which it recovered without any serious complications. The chief point of interest in this case, to my mind, is that it shows with what ease damage may be done to the structures in the mouth, without the operator being aware that he is using any force. While searching for that tube I was under the impression that I was using no more force than was usual, and yet I must have stretched the ventricular bands and the vocal cords to such a degree as to let the tube drop down between them into the larynx. The damage was caused by the withdrawal of the extractor while the blades were open. Such an accident could not now happen, as the extractors are now made with a screw which prevents the blades from being opened any wider than necessary. The damage done to the vocal cords in this case left no permanent effects, as the child—he is now nearly five years old—speaks with a perfectly clear, normal voice. The secondary laryngeal obstruction present in this case while the tube was in the throat, was caused by the swelling of the vocal cords over the mouth of the tube, thus occluding its lumen.

Of the other accidents and dangers peculiar to intubation it is hardly necessary for me to speak, because they have been dwelt upon at length by other writers, and most of them to a greater extent than their importance deserves. I believe in several instances, while introducing the tube, I have pushed down membrane before it, but it has never resulted seriously, withdrawal of the tube being always followed by either a coughing out of some membrane or an improvement of the respiration.

Case 21, intubated November 21, 1888, was one of this kind. I saw the case in consultation with Professor O'Dwyer. On insertion of the tube respiration was totally suspended. I pulled the tube out at once, and clinging to the lower aperture was a piece of tough membrane the size of a dime. When that was expelled respiration improved at once, so much so that it was decided to leave out the tube until more urgent symptoms manifested themselves, which was the case fourteen hours afterward. The tube was again inserted, with immediate relief. It went along very well, having a fairly good night, until the next morning at eight o'clock, when it suddenly died. I was told that it was sitting up in bed playing with a drum when it fell back and died at once. I got the tube and found nothing in it, so it has always been a question of doubt with me whether the cause of death was from sudden obstruction of the tube from loose membrane at its lower end, or whether the cause of death was heart failure consequent on the virulence of the disease. It was a malignant nasal case with urine loaded with albumen. Professor O'Dwyer advised me, in case I had to reintubate, to leave the thread in so that it might be removed at once in case it became obstructed. I neglected to follow that advice, perhaps if I had followed it the result might have been different. The question of leaving the thread attached to the tube or not is one which gives me deep concern at every case. One rule will not answer for all cases. In some cases I leave the thread in, giving instructions to the nurse (who is usually the mother also) to pull it out should the child show signs of choking. I find that parents cannot be trusted in the matter, their fears render them incompetent as judges as to when to draw the tube out, and usually they will pull it out whenever the child has a coughing spell of more than usual severity. If the attending physician were notified in time to reintubate it would not matter, but they are not, and I have already mentioned two cases where I think death has taken place for that reason. Also, in some cases, if one desires to leave the thread in the patient's hands must be tied, and that is something I extremely dislike to do. I have done so several times, and in three cases have the little patients gnawed through the thread, and I have found the loose end down in the œsophagus. When this occurs the tube must be removed at once and the thread taken out, otherwise it is but a question of a short time when the tube would be worked up by the thread and swallowed. Some fasten the thread on a tooth or between the teeth so as to prevent its being bitten through; I have never tried it, but think it might be a good plan. In the majority of cases, however, I really feel safer if the thread be taken out at the time of the operation. The greatest drawback to intubation, in my opinion, is the difficulty of its performance. Speaking of my own individual experience, I do not think it an easy operation to perform in all cases. One writer says, "The tube should be introduced quickly and at the first trial." So it should. But how many operators can do so in every case? I venture to say not one. Operators are not born, they are made, and the operation must be performed many, many times before one can feel at home in it. I am more impressed with that fact every time I operate, and if I go two or three months without a case I feel it at once at the next case, and for that reason I think it a good plan to utilize every opportunity to operate, either on the cadaver, on the lower animals, on a larynx stuck in the mouth of a bottle, or any other way whereby one may keep himself in practice. Within the last two years I have had two cases where I could not introduce the tube. I tried as long and as often as I thought safe, and had to give it up. Tracheotomy was proposed and refused, and the poor little patients died. Strange to say, with but one exception, those two cases were the only ones where I intubated or attempted to intubate without the presence of another physician. It is a rule with me never to intubate unless with another medical man, not even in my own practice, unless, of course, the symptoms are so urgent that the delay would prove dangerous. There are many reasons for this which will suggest themselves to everybody. I have never refused to operate in any case, no matter how far gone. As long as there is breath in a patient's body it is not entirely too late, although of course it is neither wise nor proper to defer the operation too long, as by so doing justice is done neither to the patient nor to the operation. In three cases have I been called by the attending physician to intubate, but because I could not assure the parents that the operation would save the patient's life, permission to operate was refused. These cases all died. I was also called in to intubate five or six other cases, but did not consider the symptoms urgent enough to demand operation. Three were cases of spasmodic laryngitis. I believe these cases all recovered without operation. I am sure that not one of the seventy cases would have recovered without operative procedures. As for the technique of intubation, the instruments used and the indications for the operation, it

is not my purpose to speak, as there has been so much written upon these subjects that I am convinced that my hearers know all about them. In regard to the length of time to leave the tube in, it is my custom to be guided entirely by circumstances and the state of each individual case. When the general condition is much improved, the temperature down to normal, the pulse down, the tongue cleaner, and the tonsils and fauces cleared of membrane, then I take out the tube, regardless whether it is the third or thirteenth day. It will be noticed that most of my successful cases wore their tubes quite a length of time, especially my earlier cases. One reason for that is that I did not deem the operation such a light affair, and as long as the patient seemed to be doing well I preferred to leave the tube in a day or two longer than might be necessary, rather than run the risk of being compelled to reinsert it. As for feeding, I formerly used rectal alimentation as a routine practice in all my cases. I have long since given that up, as I found that it was not necessary. I have now no difficulty on that score, as most children swallow semi-solids with but little difficulty, and I have never yet seen any evidences that food goes down through the tube into the bronchioles. Liquids do go down in the tube but are immediately coughed up; but if the child be placed with its head lower than its body and made to drink in that position, and in that position only, then there will be no trouble experienced from liquids getting into the tube.

As to the relative merits of intubation and tracheotomy, I do not propose to enter into a discussion of that question here just now, but will simply state my opinion, founded upon the experience herein given and other experiences with tracheotomy not here given, that for many reasons I prefer intubation. Tracheotomy still has its field, but that field has become very much circumscribed since the advent of the newer operation. Where formerly 20 cases would require tracheotomy, at the present time 19 of those cases would be intubated, while the twentieth case, for some special reason, might still demand tracheotomy; but whatever the operation, whether that of intubation or tracheotomy, I earnestly contend that all cases of laryngeal stenosis which are threatened with death from suffocation ought to be operated upon. In the issue of April 24, 1886, the MEDICAL RECORD began an editorial on intubation with this statement, "The question of operation in croup or laryngeal diphtheria may be said to be yet 'sub judice.'" Whatever truth that statement may have contained in 1886, it would contain absolutely none, in my opinion, were it made in 1893. Nowadays, intelligent medical men are as a unit in favor of operation in those cases, and indeed I cannot conceive how it could be otherwise. Here is a little patient suffering the dreadful agonies of strangulation, its little chest rising and sinking with each vain effort to get air into its lungs; beads of perspiration standing on its forehead; its eyes starting out of its head from the awful suffering it is undergoing—suffering which is depicted in every line of its features; its little hands clutching at its throat as if to tear out the obstruction which it knows is there. This is the picture which confronts the medical man. What is he going to do about it? He has already tried atomizers, sprays, and steam from slaked lime, water, turpentine, etc. He has already tried calomel sublimation, but in spite of all, the dreadful agony still goes on unabated and unrelieved. Will he tell the parents that there is nothing more can be done and abandon the child to its terrible fate? I am sorry to say that my list contains several cases abandoned in just that way, cases that afterward recovered, too. If the medical man is intelligent, competent, conscientious, and not heartless, he will do nothing of the kind. He will propose operation, depicting its advantages and its shortcomings to the parents. They will decide, and the medical man will have done his whole duty. Even should the patient die it is certainly spared much suffering through an operation.

The latest report of any large number of intubations, I believe, is that of Professor Waxham, late of Chicago, now of Denver. Before the Colorado State Medical Society meeting of this year he reported 466 cases, 161 of which ended in recovery, being a percentage of 34½. Surely, that is encouraging. Also, in November of last year, Drs. McNaughton and Maddren, of Brooklyn, gathered statistics of 5,546 cases of intubation with 1,691 recoveries, or 30.5 per cent., and 2,417 tracheotomies with 586 recoveries, or 24.2 per cent. Those figures, I think, show pretty plainly whether those cases should be operated on or not.

I have endeavored in the foregoing report to give my own individual impressions and opinions of the value of intubation in cases of laryngeal stenosis, those impressions having been gathered from my own personal experience, unbiassed and unprejudiced by the experience or opinions of anybody else; and whatever may have been the experience of others, mine has been quite satisfactory to me, all things considered, and I expect to go on intubating as often as suitable cases present themselves until some better method of treating these cases makes its appearance.

In conclusion, as this is my first contribution to the literature of intubation, this report would not be complete did I fail to express my high appreciation of the services rendered to suffering humanity, and to that part of humanity least able to bear suffering, little innocent children, by the illustrious discoverer of intubation, Professor Joseph O'Dwyer. I believe that the alleviation of human suffering is the highest object to which the talents of man can be devoted, and I believe that the success and usefulness of our lives are to a great extent measured by the amount of human suffering which we have been the means of alleviating. Measured by that standard, what a magnificent success is the life of Joseph O'Dwyer, and what a feeling of benign satisfaction must be his as he reflects on the lives saved and the sufferings ameliorated through his instrumentality. No one who has seen a typical intubation, where a suffering, strangling child is, almost in an instant, made free from suffering; no one who has seen that change can repress a tribute to the man whose genius has made that transformation possible. Personally, I am under deep obligations to Professor O'Dwyer, whose ever ready advice and assistance has been of the utmost value to me in many perplexing situations, and I take this opportunity of acknowledging my appreciation of those many kindnesses and returning my sincere thanks. I also wish to acknowledge my obligations and return my sincere thanks to the medical gentlemen through whose courtesy I was permitted to operate on these cases.

Diarrhœa Caused by Infusoria.—Of the four cases reported by Dr. Roos, of Kiel, of persistent diarrhœa, the first was due to megastoma entericum and trichomonas intestinalis; the second was caused by balantidium coli; the third by cercomanos homanis; the fourth was produced by a moderately large infusoria which has not yet been described, but could be compared to the oxyuris in form. The fifth case of intestinal catarrh was complicated with retarded action of the intestines; there were found besides the trichomonas intestinalis and megastoma, those described by R. May. After continued and regular doses of calomel, the infusoria were killed and the intestinal catarrh cured. The author does not consider the infusoria as a direct cause of the intestinal catarrh, but feels that they are, in a measure, the cause of the long duration of the diarrhœas.—*The Medical and Surgical Reporter.*

The Mission Ship Albert returned a few weeks ago from Labrador, where it has been cruising during the past summer. The ship carried three physicians, who treated 2,250 patients in Labrador. They also established three hospitals in that desolate region. The natives showed their appreciation of the services rendered in every possible way, and begged that the steamer might be sent again next year to their coast.

A SYMPHYSEOTOMY: THE TROUGH-BED A SIMPLE DEVICE TO KEEP THE JOINT-SURFACES IN APPOSITION: THE RELATIONS OF THE PERITONEUM TO THE JOINT.

By ROBERT L. DICKINSON, M.D.,

LECTURER ON OBSTETRICS AND ASSISTANT OBSTETRICIAN TO THE LONG ISLAND COLLEGE HOSPITAL; OBSTETRICIAN TO THE KING'S COUNTY HOSPITAL.

L. L——, aged twenty-nine, Italian, married, height 141½ ctm. (55¾ inches), in good health, had been delivered of a living child after a difficult labor, six years ago, the child being probably a small one. Unwell last, ten months ago, in August, 1892. The pelvic measurements are: inter-cristal, 26 ctm. (10¼ inches); inter-spinal, 21 ctm. (8¼ inches). External conjugate, 17 ctm. (6⅝ inches); diagonal conjugate, 10½ ctm. (4⅛ inches); true conjugate, 8 ctm. (3¼ inches). Cavity of pelvis generally contracted. Height of fundus, 25 ctm. (9⅞ inches). Estimated size of head, above average.

June 11, 1893, 9 A.M., pains began with fair vigor, continuing with moderate intervals until June 12th, 9.30 P.M., when the os was fully dilated, but not obliterated, the membranes protruding, the head not engaged, and the pains vigorous. All attempts at crowding the head into the pelvis were ineffectual, and a relative disproportion was evident.

June 13th, at 3.30 A.M., the patient having been 42½ hours in labor, symphyseotomy was performed. The incision was made about 1½ ctm. (½ inch) to the right of the median line, because the joint was felt at this point. The joint was readily followed, the finger being placed behind it, from above downward, with a blunt-pointed bistouri, in preference to my Galbiati knife. The bones were separated after incision of the thick tendon above, the head was pressed down into the pelvic cavity, and the forceps applied, delivery being finished with the employment of some force at 3.55. The bones separated 5 ctm. (2 inches). As the head emerged through the vulva a laceration occurred to the right of the urethra, so that there was an opening an inch long between the wound and the vagina, the labium minus remaining intact. Bleeding was moderate and easily checked by pressure with gauze and counter-pressure in the vagina. Peritoneum and bladder pouched sharply into the wound as soon as the bones gaped. The sutures were catgut and silk, and an attempt to steady the bones by including tissues close on the bone was found impracticable. No drain was used. Suturing was completed forty-five minutes after beginning the first incision. The operation was done at the King's County Hospital, with the assistance of my colleague, Dr. J. T. Duryea, and Drs. Thomson and Ambler, of the house staff.

The child was living, a male, weighing 7½ pounds (3,400 Gm.), 51.5 ctm. (20¼ inches) long, with a head measuring as follows: diameters, biparietal, 9.2 ctm. (3¾ inches); suboccipito-bregmatic, 10 ctm. (4 inches); occipito-frontal, 12 ctm. (4¾ inches); occipito-mental, 18½ ctm. (5¼ inches).

Adhesive strips and a tight binder were applied to the pelvis, and a long, moderately firm pillow was laid on each side of the bed, to make a trough in which the patient lay, bearing most of her weight on the trochanters and the iliac crests. On the third and ninth days her temperature rose to 101°, but calomel brought it down both times. Her recovery was otherwise uneventful, except for nervousness. She walked about the twenty-first day, our policy being to keep her long in bed.

At the end of seven and a half weeks her general condition was good, she walked perfectly, the wound had united without any deformity, and the motion in the joint amounted to an estimated quarter-inch (6 mm.) in an up and down direction when she was examined standing, swaying her weight from foot to foot, while the back and forward motion at such time was believed to be an eighth of an inch (3 mm.). The general contraction of the pelvis was verified and the pelvic contents found to be in normal condition, except that the rectum ran up on the right side of the promontory. The child was nursed by another patient and is doing fairly well.

The Trough-Bed.—By laying a long and moderately hard pillow along each side of the mattress, and placing the rubber sheet and other sheets above it, one may readily construct a trough or gutter in which a patient will lie in such fashion that the weight of the lower part of the trunk and of the thighs is taken on the iliac crests and the trochanters. The legs are thereby inrotated, the knees pressed together, and the tendency to separation

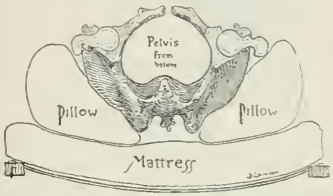

FIG. 1.—A trough formed by pillows holds the joint surfaces in contact during convalescence.

of the symphysis is overcome, as it occurs when the weight of the body is borne on the sacrum. In this way bed sores are less liable to occur, and there is a little room for the bed-pan to be slipped beneath the patient, while the inward pressure still continues. If the patient moves or tries to twist the body, the sloping sides of the trough, slippery on account of the rubber sheet over the pillows, keeps the pressure in the desired direction. In combination with adhesive plaster strips or a binder, this method gives us good approximation of the surfaces without expensive machinery, or apparatus requiring skilled care. The special girdles that have been devised and the plaster splints are rapidly soiled by the discharges. A binder requires constant tightening and, alone, is insufficient security. Even the use of adhesive strips has its drawbacks in action, because, if a strip is placed about the patient at the level of the trochanters, it prevents cleaning between the buttocks; whereas if it is placed about the iliac crests, it crosses the hypogastrium, where the pressure is liable to squeeze the bladder-wall or the peritoneum above the bladder into the joint, should the joint gape during the motions of the patient.

The Relations of the Peritoneum to the Joint.—What difficulty may arise from the pouching of the peritoneum into the wound, as it occurred in this case? A glance at the frozen sections of women who died late in pregnancy, and at various stages of labor, would lead us to expect to find the peritoneum in the way in certain cases. Braun[1] shows the peritoneum in late pregnancy dipping well below the symphysis, the head not being at all engaged in the cavity. See Fig. 3. Barbour and Webster[2] show the same condition, though the bladder is partly filled. The cervix is undilated and the breech sunk into the cavity. Winter's section before dilatation shows a two-inch dip of peritoneum. Barbour[3] gives Waldeyer's section of the ninth month, with the peritoneum close behind the symphysis. His own section, Fig. 5, at the beginning of labor, without dilatation, the head deep in the pelvis, gives the peritoneal dip low behind the bone, hugging it. In Schroeder's section, with beginning dilatation and the head well engaged, the peritoneum is close to the bone. In Chiari's case, also pictured, a transverse presentation with the arms delivered and good dilatation, the peritoneum is high above the symphysis, and the bladder drawn up beneath it.

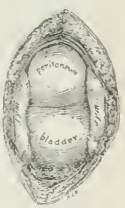

FIG. 2.—The bulging of peritoneum and bladder into the opening, in this case, after the bones separated.

[1] Atlas of Topographical Anatomy, Plate 29 B.
[2] Laboratory Reports, Royal College Physicians, Edin., vol. ii., Plate I.
[3] Anatomy of Labor, Atlas.

Barbour and Webster's section of the expulsion stage, Fig. 6, with the head at the vulva, shows the peritoneum drawn up nearly out of the way, the bladder lying in front of the peritoneum and guarding it from injury.

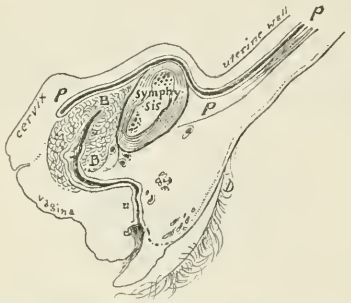

FIG. 3.—Sagittal section through the parts about the symphysis in the last month of pregnancy, where no dilatation or descent has occurred. B, bladder; p, p, p, peritoneum. The blood-vessels show well. Such conditions probably persist until dilatation is nearly completed. (Braun, one-third.)

In Braun's Plate 31, the head is also on the pelvic floor and the peritoneum is drawn up above it, Fig. 7. Webster [1] demonstrates that just after labor the peritoneum is found behind the bladder and the bladder behind the

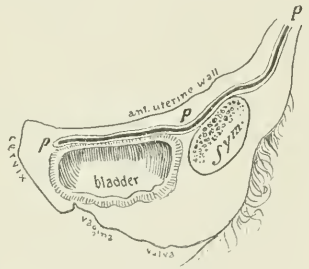

FIG. 4.—Section at eighth month with no dilatation, but breech sunk into the cavity. Even the partial filling of the bladder does not strip peritoneum off the joint. (Barbour, one-third.)

symphysis, but that in some cases the peritoneum lies directly on the posterior aspect of the symphysis, Fig. 8.

Thus we see that, as far as frozen sections go, the *peritoneum*, before full dilatation of the cervix, lies against the rear surface of the joint and the back of the bladder,

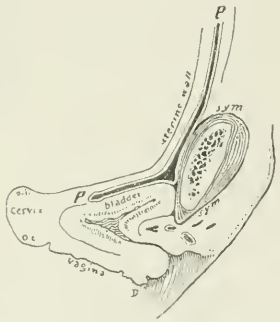

FIG. 5.—Beginning dilatation with head deep in pelvis; p, p, peritoneum, close to the bone. The vessels are also shown. (Barbour, one-third.)

but that after full canalization of the cervix, *together with* wedging of the presenting part well into the pelvis, the peritoneum is drawn upward with the anterior lip of the

[1] Researches in Pelvic Anatomy.

cervix and the bladder, so that it is entirely above the symphysis, is often stripped off the bladder, and is out of

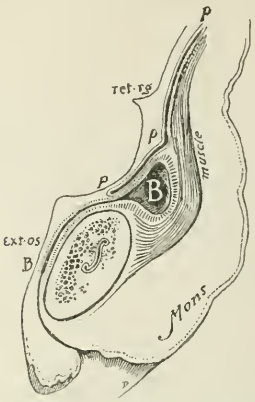

FIG. 6.—Expulsion stage, with complete dilatation and head on pelvic floor. Part of the bladder and peritoneum have been drawn up, and bladder and urethra are tightly applied to the symphysis. B, B, bladder; p, p, p, peritoneum. (Barbour, one-third.)

the way of any harm. After the uterus is emptied it is again found behind the symphysis.

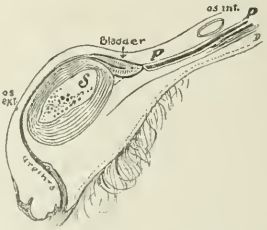

FIG. 7.—Obliteration of cervix with head at outlet of soft parts. Urethra and bladder are applied to hinder surface of symphysis, and the peritoneum is lifted and stripped off the bladder and the bone. S, symphysis, bone being dotted, and cartilage shaded. P, p, peritoneum. In cases where the operation is done for contracted outlet this and the previous figure show the conditions when the head is low. (Braun, one-third.)

In complete or nearly complete dilatation without descent, my case would go to show that the peritoneum

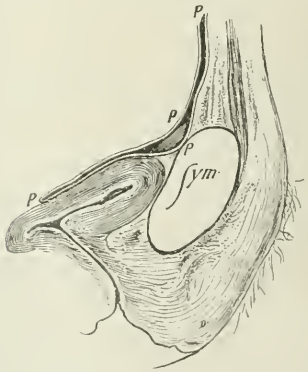

FIG. 8.—Condition five minutes after delivery. P, p, p, peritoneum. Peritoneum, bladder, and a little loose tissue are behind the symphysis. The relations are such as these while suturing is under way. (Webster, one-half.)

remains on the posterior aspect of the joint, with the bladder not drawn upward. This condition is not pictured in any of the charts.

During delivery, the *bladder* remains behind the pubes

strongly compressed against the bone, only the upper part being drawn up above it. This elevation does not occur until the second stage, and possibly not until the presenting part is driven into the pelvis. The *urethra* is not elongated during labor,[1] and its lower end does not materially alter its position; but the upper end is considerably elevated during the expulsion stage, and pressed hard against the symphysis.

The structures found behind the joint will be:

1. Before full dilatation and a certain degree of descent: Peritoneum and bladder (with little or no loose fatty tissue in the retro-pubic triangle, or cavum Retzii).

2. After full dilatation and some descent: Bladder (lower part) and urethra firmly pressed against the joint.

3. After delivery: Peritoneum, bladder, and a very little loose tissue.

The blood-vessels (veins) that are located behind the lower part of the symphysis in the retro pubic triangle in the imparous woman, will be found beneath the arch during labor (Figs. 3 and 5), and, with few exceptions, after delivery they are still nearly in the same position.

The amount of motion in the joint in this case, at the end of a few weeks, is not greater than is found in many hard labors and after many easy ones. To make sure of the facts in this matter, and to enable us to compare the results after symphyseotomy, after difficult or instrumental deliveries, and after ordinary labors, I am gathering data by means of the rubber stamp here given, which I print at the end of each of the history blanks of my two services. The words not needed are scored off.

CONDITION OF SYMPHYSIS .... DAYS AFTER DELIVERY.

	MOTION: UP AND DOWN	BACKWARD AND FORWARD.
STANDING SWAYING FROM FOOT TO FOOT.	NOT PERCEPTIBLE. ESTIMATED AT CM. IN.	NOT PERCEPTIBLE. ESTIMATED AT CM. IN.
ON BACK SWINGING LEGS.	NOT PERCEPTIBLE. ESTIMATED AT CM. IN.	NOT PERCEPTIBLE. ESTIMATED AT CM. IN.

CLINICAL EXPERIMENTS WITH CREOSOTE IN THE MANAGEMENT OF INOPERABLE CASES OF SURGICAL KIDNEY.

By LEONARD WEBER, M.D.,

NEW YORK.

Chronic pyelonephritis, caused by calculus or gonorrhœa or other infection, is a dangerous and destructive disease, to be sure, but not unfrequently amenable to proper surgical treatment by nephrotomy or nephrectomy. When a calculus occupies the pelvis of a kidney, reasonable assurance must be had that the other kidney is healthy, or nearly so, before the patient is subjected to a radical operation; when the trouble is bilateral there must be left sufficient renal tissue, both in extent and functional activity, to do the necessary secretory work, if an operation is to be undertaken. And further, the patient must not be too old and feeble, and comparatively free from other serious complications.

Other things being as they should be, it is finally the state of the patient's heart, both in considering the question of operation for surgical kidney, and in the prognosis of certain forms of chronic Bright's disease, that will safely guide us in deciding for or against operation or in stating a probable prognosis as to an early or remote fatal issue of renal disease. So long as the functional activity remains unimpaired in chronic diffuse nephritis, or the hypertrophied muscle of the left ventricle is equal to the compensatory work demanded of it in renal sclerosis, the patient will live without great distress and be even able to attend to his work. But how quick and sure comes a change for the worse when the compensatory hypertrophy is wanting, or, when present, gives place to atrophic dilatation or exhaustion from overwork? And similarly great is the danger from weak heart when a diseased kidney is to be removed; aside of the primary risk during anæsthesia, the patient's chances of recovery will be very small when there is functional insufficiency of the cardiac organ, though the state of the other kidney may be sufficiently good to warrant the operation.

Cases in which for good reasons no operation is advisable are not very rare, however, and the question how to relieve the patient's suffering, prolong his life, and perhaps improve his general condition, finally rests with the attending physician. He does the best he can with anodynes, alkaline mineral waters, baths, and the like, but it goes without saying that very little is accomplished in this way. During the management of the last four inoperable cases of surgical kidney with abundant discharge of pus and frequent paroxysms of fever, I observed that it was not so much by the loss of albumin and various more or less uræmic symptoms that the patient's life became endangered as by the septic condition produced by the suppurative process. Suppuration being once established by the action of the pyogenic microbes, as in calculous disease for instance, the discharge of pus with the urine will be more or less constant; indeed will flow steadily or come in gushes, but vary considerably in its daily quantity. Whenever temporary obstruction of a ureter occurred, as it was often noticed in Case II., given below, the discharge of pus being impeded by retention in a sinus, or by impaction of scaly detritus masses or calculous fragments in the ureter, acute symptoms of septic fever would set in, sometimes severely so, and, within a few weeks the patient be reduced to an alarming degree. And then the process of ulceration and destruction is advanced again through the cachectic condition brought about by the fever, inasmuch as the power of tissue-resistance is much diminished by it, and thus the disorder finally moves in a vicious circle.

In looking about for a remedy that might have good antiseptic properties and not only be safe to give, but could also be expected to act favorably upon the kidneys, as it is excreted by them to a large extent, it seemed to me best to try creosote. From 1888 to the present time I have prescribed the beech wood tar in more than one hundred and fifty cases of phthisis tuberculosa, and noticed that, in the far greater number of them it readily subdued the septic fever which is generally caused by the pyogenic virus complicating the tubercular infection, and which accompanies all well developed cases of tuberculosis. It was logical to expect similarly good results from its use in the septic fever of suppurative renal disease. My expectations were realized, and the palliative results have been so good that I may be justified, I hope, in drawing attention to the value of the drug in certain cases of suppurative nephritis. Others may be induced to give it a trial and help increase the number of observations. In the four cases I report on I have not found it necessary to give large and increasing doses, as I am in the habit of doing in tuberculosis, but have found that from three to five grains of creosote three times a day, in capsules, or in alcoholic solution by the mouth, or in the form of suppositories or injections by the rectum, will sufficiently impregnate the urine to correct its foul odor, reduce the fever, and improve the patient's general condition in a comparatively short space of time. There are some who deny to creosote any noteworthy therapeutic influence in phthisis; they are wrong, and so are those who extol it as a curative of almost specific influence. Though it does not visibly affect the bacillus tuberculosis it certainly does often assist the pulmonary tissue to regain the lost resistance to the baneful action of the bacillus tuberculosis. Pulmonary tissue infiltrated with tubercle is diseased tissue, so changed and paralyzed by the toxin of the bacillus that it falls a ready prey to destruction by the suppurative virus; that creosote is a sort of antidote of considerable power in overcoming the purulent infection I have good reason to believe.

The following is the history of four cases of surgical kidney in which creosote has been tried:

Case I.—L. M——, aged thirty-four, clerk; phthisical

[1] Webster: Researches in Pelvic Anatomy, p. 98.

taint in his family; had small glandular abscesses in early life, frequently naso-bronchial catarrh, never hæmoptœ. In fairly good health and vigor at twenty; severe and protracted gonorrhœa at twenty-four, followed by bilateral pyelitis ushered in by severe chill and fever; has had bad health ever since, though able to attend to business most of the time. Urine never free from pus; blood and renal epithelia frequently to be found in sediment. Calculus or tubercle probably not present. By none of the various methods applied has he derived any benefit comparable to the relief obtained by creosote which he has taken now for a year. Has not had febrile temperatures for many months, gained in weight, looks and feels better, urine clearer, micturition less frequent.

Case II.—L. B——, aged sixty-eight, a merchant, originally of sound and vigorous constitution, though troubled with chronic bronchial catarrh for more than forty years, to which has been added some emphysema of late years. First symptoms of renal trouble on the right side about twelve years ago, associated with pain in region of kidney and hæmaturia; probably calculus. The disease progressed gradually, his health became poor during the last two years, and the urine contained pus, sometimes in considerable quantities. The right kidney is now enlarged, as can be readily demonstrated by bimanual examination. Left kidney very probably also diseased, for his urine is of constant low specific gravity, and the diuresis much increased, and steadily so for the last five years. Heart still comparatively strong, the complication of disorders notwithstanding. In the summer of 1892 sudden attack of retention of urine, right side, through the temporary blocking of ureter by soft, scaly, fibrinous detritus masses, showing no tissue-formation under the microscope. Sharp pain, chills and fever followed by abundant discharge of urine and pus after the obstructing masses had been forced out by pressure *a tergo*. Until the end of 1892 patient had five or six repetitions of such attacks by which he was greatly reduced in health and strength, losing about thirty pounds in weight. Drs. Lange and Keyes of this city saw the patient with me, and we were all agreed that his general condition did not warrant the undertaking of an operation. For nearly ten months Mr. B. has now been taking creosote, two to four grains three times daily. Last winter he spent three months down South, and has not had a recurrence of his attacks since March last. General health considerably improved, urine contains much less pus than before.

Case III.—E. S——, aged fifty-four, a tradesman; no hereditary nor acquired taint; fairly strong, though very nervous man; pulse good enough; heart's action irregular, but no false sounds. First seen by me about ten years ago for abscess of the appendix vermiformis. Had been ill at that time with all the symptoms of appendicitis, his attending physician said, for three weeks. We found that the abscess had already perforated the bladder, and in the fourth week also burst into the rectum, and finally healed up perfectly, in that way leaving the man as well as he ever remembered to have been in his life. During the last two years he has some of the symptoms of renal calculus on right side, and of late pus in urine and sometimes fever. Has taken creosote now for three months, and been benefited in the same way as the foregoing case.

Case IV.—Mrs. S. S——, aged seventy two, stout, somewhat anæmic woman. For the last ten years symptoms of renal disorder and chronic bronchial catarrh; urine now contains much pus, also some blood. Rigors and febrile temperatures from time to time and general failing in health. That she has chronic suppurative nephritis is beyond a doubt; but as the patient lives away out in the country, and I have not had occasion to see her more than twice, I can say nothing as to the underlying cause, but from reports made to me I may state that she has taken creosote now for three months, and is said to be free of fever and in generally improved condition.

25 West Forty-sixth Street.

A PLEA FOR THE EARLY DIAGNOSIS AND PROMPT ELECTRICAL TREATMENT OF FIBROID GROWTHS OF THE UTERUS.[1]

By G. BETTON MASSEY, M.D.,

PHILADELPHIA, PA.

The questions briefly considered in this paper are: the nature and symptoms of the early manifestations of uterine fibrosis and myomatous new growths; the duties of the profession in making a prompt diagnosis and instituting early treatment for the condition; and a consideration of the value of the Apostoli methods in these cases.

The etiology of fibroid growths within the uterine parenchyma is still obscure, but enough is known of fibrosis in general to show that it is an hypertrophy of the connective tissue elements, or in the case of myomas, of the uterine parenchyma itself. According to the classification laid down by Loomis in his discussion on Fibroid Processes, at the Congress of American Physicians and Surgeons at Washington, in 1891, the process under consideration is probably somewhat distinct from that found in ordinary inflammation, though allied to it, and is dependent on a perversion of the nutritive supply, which is insufficient to maintain the higher elements, the connective-tissue cells, which maintain a lower nutrition, going on to hyperplasia. According to this definition the disease is essentially an affection of the local trophic processes.

Arising in a disordered condition of the trophic nerves of the uterus, uterine fibrosis may either be found associated with chronic interstitial metritis, or else simulating this affection by the production of similar symptoms in the early stages of the growth of the buds. Interstitial fibrosis, in fact, is not clearly distinguishable from the later stages of chronic metritis, at least clinically, and under the designation of hyperplasia may be considered as one of the conditions to which this paper invites the early attention of physicians. The brawny, cartilaginous, enlarged organ becomes almost a foreign body within the pelvis. There may be lacerations of the cervix remaining also as evidence of the causative conditions, but the disease now present cannot be cured by their repair. Such efforts are too much like locking the stable door after the horse is stolen. A more healthy tone must be imparted to the depressed trophic nerves of the organ, in order that the normal histological elements may be stimulated into renewed life.

Cases in which the fibroid growth is in the shape of isolated foci of development surrounded by normal uterine tissue, are more important, as it is this form that results in the progressively increasing neoplasms that at times attain enormous proportions and give rise to much suffering. Beginning as small nodules in various portions of the uterine wall, the greater number of these cases present symptoms in their earliest stages that should attract the attention of the physician, but too often they are mistaken for ulceration, metritis, displacements, and even ovarian disease. Cases are at times supposed to be suffering from oöphoritis or salpingitis, when the trouble is really a fibroid bud springing from the side of the uterus in the region of the broad ligament. The diagnostic aid to be derived from a supposed locating of a tender spot is extremely unreliable. Many a tender ovary may be cured by treatment directed to the uterus, and *vice versa*.

I have repeatedly called attention of late to these interchangeable evidences of uterine treatment and oöphoritis, showing that many so called cases of ovarian disease were really instances of catarrhal and interstitial metritis, and it has been while pursuing the treatment of some of these by the intra-uterine method, that still further revelations have been made. An enlarged uterus, which has given rise to symptoms that have been referred to the ovaries by surgical friends, with the natural consequences as to advice on their part, on being placed under the

[1] Read before the Section of Gynecology and Abdominal Surgery of the Pan-American Medical Congress, Washington, D. C., September 6, 1893

intra-uterine galvanic treatment would shortly present a shrinkage everywhere but at one point. Here a nodule could now be detected which had been concealed before by the general uterine hyperplasia. Under a continuance of the same treatment I have several times had the satisfaction of seeing the lump grow smaller, coincident with a disappearance of the symptoms, demonstrating that I had not only stumbled upon an incipient fibroid growth of the organ, but had also relieved the patient from a most unpleasant future.

About seventy-five per cent. of my cases gave a history of having been treated for some form of womb disease for varying periods, before the recognition of the tumor. It is safe to say that nearly all of these had nodules present throughout their trying experiences with tampons and pessaries; and had a proper diagnosis been made, could have been saved years of subsequent suffering. Early recognition and early treatment would have secured relief at a time when it is most easily given. Moreover, the early treatment of fibroid growths has the advantage of placing all cases within the list of those amenable to electricity, while delay permits of some becoming unsuitable for it by reason of cystic or other degenerative changes, which appear only after considerable size has been attained.

The too prevalent attitude of expectancy on the part of the profession is well illustrated by the cases of physicians' wives with tumors, who have been under my care: about five per cent. of the whole number of cases treated. The tumor in each one of these cases was as large or larger than the adult head.

The discovery that painful periods, or particularly that intermenstrual pain, weight, and discomfort, are associated with an enlargement of the uterus, should lead to a more thorough investigation of the case to determine the presence or absence of fibroids. Now that an almost certain relief may be obtained from electric treatment, there is no longer any excuse for a waiting policy, that not only prolongs the discomfort of the patient, but renders treatment, when finally undertaken, both more tedious and more difficult.

212 South Fifteenth Street.

THE ORIGIN OF THE NON-RESTRAINT SYSTEM IN THE TREATMENT OF THE INSANE.

By WILLIAM PHILIP SPRATLING, M.D.,

NEW YORK.

Late First Assistant Physician to New Jersey State Hospital for the Insane at Morris Plains; Member of New York County Medical Society, and of the Harlem Medical Association of the City of New York.

So much has been said and written about the non-restraint system in the treatment of the insane during the past decade, that it seems unnecessary to call the attention of the profession to the subject again. I do not desire to awaken, or reopen, a discussion of the merits of the system; and what I have here to state will be of more interest to the historian than to the practical alienist and custodian of that great class of unfortunates.

In June, 1891, while visiting some of the hospitals for the insane in England, and on the continent, I had a lengthy and delightful conversation with Dr. G. Fielding Blandford, the eminent English alienist, on the subject. In the course of our conversation I referred to non-restraint as "Connollyism," a term regarded as synonymous with non-restraint by most of the asylum superintendents in this country. Dr. Connolly is supposed to have inaugurated the non-restraint system during his term of service as Superintendent of Hanwell Asylum, which began in 1838. Dr. Blandford at once told me that Connolly did not originate the system, and that all credit for its origin was due to Dr. Gardiner Hill and Dr. Charlesworth of the Lincoln Asylum, an institution smaller than Hanwell, and more remote from London.

After my return to New York I wrote Dr. Blandford for the facts above stated, with his permission to make them public. This is his letter:

"48 Wimpole Street, London, England.

"My Dear Sir: It is quite true that Dr. Connolly did not inaugurate the non-restraint system. It commenced at the Lincoln Asylum, and to Dr. Gardiner Hill and Dr. Charlesworth is due the credit of having initiated it. Dr. Connolly, in his first report, presented Michaelmas, 1839, and now before me, says: 'The example of the Lincoln Asylum, in which no patient has been put in restraint for nearly three years, comes powerfully in aid of an attempt to govern the asylum at Hanwell by mental restraint rather than by physical.' He goes on to say that the daily number in restraint at Hanwell was, in July, so reduced that there were sometimes only four, and never more than fourteen, in restraint at one time; but that since the middle of August there has not been one patient in restraint on the female side of the house, and since the 21st of September not one on either side.

"Clearly, Dr. Connolly, following the example at Lincoln, gradually did away with restraint at Hanwell. The latter being a very large asylum and close to London, brought the system into notice. Lincoln was forgotten, and Connolly got all the glory.

"I remain truly yours,

"G. Fielding Blandford."

January 2, 1892.

The evidence that Dr. Blandford here presents to show that Connolly did not inaugurate the non restraint system is far-reaching and effective. Let me again call attention to that part of his letter where he quotes from Dr. Connolly's report, and in which Dr. Connolly is made to say: "The example of the Lincoln Asylum, in which no patient has been put in restraint for nearly three years, comes powerfully in aid of an attempt to govern the asylum at Hanwell by mental restraint rather than by physical." After having written so much of this paper, Dr. B. D. Evans, Medical Director of the New Jersey State Hospital at Morris Plains, called my attention to the fact that Dr. Hack Tuke, in his "Dictionary of Psychological Medicine," verifies Dr. Blandford's statements as to the origin of the non-restraint system. In vol. i., page 25, Dr. Tuke says: "Gardiner Hill and Charlesworth introduced, at the Lincoln Asylum, the system known as non-restraint. It was a gradual work, culminating in the formal abolition of restraint in 1837. Every friend of the insane should feel thankful to these men for the humane course they pursued, and the attention they drew to the evil of the excessive resort to mechanical restraint, then, too frequently practised, in spite of the great advance which had been made in the management of the British asylums. To Dr Connolly, who became the ardent apostle of this system, we ought to pay the homage to which his labors so justly entitle him. He, in the height of his fame, generously accorded the meed of praise to those who had preceded him at the New York Retreat and at Lincoln, and had paved the way to his extended field of labor at the Hanwell Asylum, where his memory should ever be cherished with gratitude and affection."

Each decade that passes by will serve to enhance the value of Gardiner Hill's and Charlesworth's new departure in the treatment of the insane to mankind. The time is not yet ripe when the full meed of praise and honor, that they so richly deserve, can be given them. A century hence the glory will be theirs.

70 West Eighty-eighth Street, November 7, 1893.

The Medical Society of New Jersey claims to be the oldest State Medical Society in the United States, and among the first to secure an act from its Colonial Assembly to legalize and regulate the practice of medicine. The first State law regulating medical practice in New Jersey was passed in 1783. So says Dr. E. L. B. Godfrey, of Camden, N. J.

Clinical Department.

ODONTALGIA, EMERGENCY TREATMENT (A CRITICISM).

By CHARLES G. PEASE, M.D., D.D.S.,
NEW YORK

I AM led to write upon this subject, having read the article, "The Emergency Treatment of a Toothache," appearing in the MEDICAL RECORD of the issue of November 11, 1893, and will here discuss the same for the benefit of the writer of that article and the profession in general. In the first place the essayist states that "the treatment for an aching tooth causing inflammation of the jaw and gums with swelling, is the insertion of a medicated pellet of cotton into the cavity of the tooth, if there be one." Now, my comment upon this line of treatment is that it should be just the reverse, for the reason that with these conditions we have, without doubt, a devitalized tooth to deal with, and if so, the cotton should not only not be put in but the cavity should be freely opened and the pulp-chamber and pulp-canals, which formerly held the living pulp, thoroughly vented, to allow the escape of gas and venting of pus, if any has formed, external to the apical foramen. The gums could be painted with iodine to stimulate the lymphatics in carrying away the products of inflammation. Immediate relief will accompany the proper venting of the canal or canals.

Where pain is the result of pulp irritation dependent on caries, we will find no external swelling as a result of said irritation, and here we are to use the medicated cotton, placing the pellet in the cavity; but before doing so it is necessary for the obtaining of the desired results to free the cavity of the débris that the medicament may come in contact with the dentine or pulp, if it be exposed. The cavity should be syringed out with warm water of an alkaline reaction, that it may neutralize the acid condition of the cavity, concomitant with decomposition, and relieve the pulp of this source of irritation. The cavity is then dried. Too much pressure should not be exerted in placing the cotton when the pulp is exposed, or when the dentine over the same is very thin and easily depressed. A retaining pellet should also be used, dipped in a solution of gum sandrac and alcohol.

I would also criticize the treatment, recommended in the article I am discussing, of swollen and tender gums, *i.e.*, with doses of subcarbonate of bismuth, phenacetine, laxatives, etc. I claim this dosing of the patient is wholly unnecessary, and would refer to my article on "Pyorrhœa Alveolaris often Diagnosed as Facial Neuralgia," which appeared in the MEDICAL RECORD of February 13, 1892; swollen and tender gums most frequently resulting from the conditions described therein. Bicarbonate of soda is most valuable as a mouth wash, especially before retiring, and by all means during pregnancy, as a prophylaxis.

101 WEST SEVENTY-SECOND STREET.

A CASE OF APHONIA DUE TO HYPERTROPHIC RHINITIS.

By HOWARD S. STRAIGHT, M.D.,
CLEVELAND, O.

IN May, 1889, O. S——, a boy of German parentage, seventeen years of age, came to the John Huntington Dispensary. He had not been able to speak aloud for two years. He could whisper, but even his ability to whisper distinctly varied at times. He was a healthy, well-developed young man, and had never had any serious illness. He said that about three years before he had lost his voice for six months. This period was followed by two months, during which time he again had the use of his voice. He was a grocery clerk, and caught cold one evening when washing windows. He was sick for a week and must have had follicular tonsillitis. With the onset of this cold he again became aphonic, and this condition continued until he came under my observation. He had had catarrh in his head for some years, but it had troubled him more for the last three years than before that time. He also said that he had noticed that whenever he caught cold in his head he could not whisper so well. His laryngoscopic examination showed nothing abnormal. There was no disease of the pharynx, naso pharynx, or tonsils. He had, however, a well marked hypertrophic rhinitis. The hypertrophy was limited to the anterior and posterior turbinated bones. The middle turbinated were normal. Whether the nasal condition could account for his aphonia was a question, but in the absence of any other abnormal condition of the upper air-passages, it seemed wise to treat the nasal hypertrophy.

May 16, 1889, his right anterior turbinated hypertrophy was thoroughly reduced by means of the galvanocautery. Four days later his left anterior turbinated was subjected to the same treatment. May 24th—eight days after the first cauterization—he returned. There was no change in his condition. At this time I cauterized his right posterior turbinated. That same evening one of his companions punched him, and he attempted to whisper "Oh," when to his very great surprise he said it aloud. He now found he could speak, and returned the next day to show me the change in his condition. He could speak again, but the control of his larynx was so imperfect that his talking sounded much like the crowing of a young rooster. This inability to speak in the same tone soon passed away, and after the treatment of his nose was finished he returned to his home.

August 25, 1893, he again visited me. He stated that he had had no trouble with his voice or nose since the completion of his treatment—a period of four years. The greatest sceptic as to the occurrence of neuroses due to diseased nasal conditions would, it seems to me, find difficulty in explaining this case upon any other basis. Cases of aphonia due to nasal catarrh, and which were cured by treatment directed to this organ, have been reported within the last few years. The thickening of the mucous membrane over the posterior turbinated was in this case very marked. The posterior nares were almost completely filled up.

The aphonia must have been due to the pressure of this hypertrophy. The cauterization of the anterior turbinated had produced no change is his condition. The same treatment applied to his right posterior turbinated, produced an immediate correction of his aphonia, for he spoke within twelve hours after cauterization. This result was also attained before the left posterior turbinated had received any treatment whatever—as soon, in fact, as the pressure upon the posterior portion of the septum was partially relieved.

Three factors are necessary for an explanation of reflex action: an afferent nerve, a nerve-centre or a transferring centre, and an efferent nerve. These three factors in the case reported are as follows: Meckel's ganglion or the spheno palatine ganglion, one of the cephalic ganglia of the sympathetic, sends sensory branches to the posterior part of the septum and to the posterior turbinated bones. These branches—some one of them—supply the afferent nerve, and the pressure upon them furnishes the first link in the reflex mechanism. The connection of the spheno-palatine ganglion with the sympathetic and the pneumogastric, and other of the ganglia of the sympathetic, is well known.

The efferent nerve in this case was certainly the recurrent laryngeal; which ganglion acted as the transferring centre cannot be decided. Why the sensory effect should have been transferred to the recurrent laryngeal rather than to some other branch of the pneumogastric, is equally impossible of explanation. If the sensory impression had chosen the œsophageal branches he might have had difficulty in swallowing; or the superior laryn-

geal, he would have had a throat cough, or the cardiac branches, he would have suffered from disordered heart-action; or the pulmonary branches, he would have had disturbance of respiration. This seems to me to be a perfectly logical conclusion.

Cases of asthma, of difficulty of swallowing, of disordered heart-action due to nasal disease, have been reported; and why this case should have suffered from aphonia and not from some other neurosis, I know no reason. Cases of this kind have been reported by competent observers since Voltileni called attention to them in 1871.

From the earliest days of medicine it has been believed that various neuroses could be produced by disease of the nose. Hack, who was a very great enthusiast, did more than any other observer to direct attention to their occurrence. The attitude of the profession as regards nasal neuroses, has been either one of extreme scepticism or exaggerated belief, while it is possible that the rhinologist may have erred in ascribing undue importance to the local condition, it is equally possible that the general practitioner may not have given the subject proper consideration. It has been claimed that spurs upon the septum can cause aural tinnitus, that certain headaches are dependent upon disease of the nose, and that epilepsy, vertigo, and even neurasthenia may owe their origin to the same cause. McBride, of Edinburgh reports a case of first attack of epilepsy during the passage of an Eustachian catheter. It is claimed that even vaso motor disturbances in the nasal mucous membrane without thickening, can give rise to the various neuroses mentioned.

That nasal neuroses may occur the case reported proves, it seems to me, and yet in a special practice of six years I have seen only one other case—this case being one of a burning sensation starting in the nose, and spreading to the hands and feet. I have been attempting for years to find cases of asthma that would be benefited by removal of polypi or a correction of an abnormal nasal condition. I believe such cases can occur, but I have yet to see such a case, although I was chief of the throat and chest department of the John Huntington Dispensary for five years. Such cases must be rare.

My attention was early directed to the possibility of neuroses arising from nasal disease. In the beginning I was a sceptic, and while this case, I confess, made a great impression upon me, my scepticism still continues. While I believe their occurrence possible, while I have been on the lookout for them, I have more often found the explanation of difficulty of swallowing, disordered heart-action, etc., in the patient's general condition.

There seems to be a tendency to overestimate the local condition by the rhinologist; there seems to be a good reason for believing that the fault may be with the nerve centre—the transferring cell—that receives the sensory impression. If this cell is irritable and depressed, if, in other words, the constitutional condition of the patient is below par, why is it not a reasonable inference that a normal afferent stimulation might produce an exaggerated effect upon this unstable cell?

If the rhinologist thinks the local condition to be the etiological factor, and treats the nasal area to which the terminal branches of the nerve-centres are distributed and the neurosis is relieved, why can we not explain the result by the effects of the counter-irritation upon the central cell?

Counter-irritation certainly produces trophic influences upon remote parts by sensory impressions. This is an every-day observation. Why should this fact not apply to the nasal mucous membrane as well as to any other portion of the body?

If an abnormal condition of the nose exists, it ought to be corrected, of course, and the possibility of nasal disease being accountable for certain neuroses in a small number of cases, ought never to be lost sight of, and yet the physician who studies the general condition of his patient more than the local will be making an error, if error at all, upon the right side.

GONORRHŒA IN CHILDREN.

By ADOLPH A. HIMOWICH, M.D.,

NEW YORK.

Gonorrhœa in children is considered a very rare occurrence. Most of our best text-books on diseases of children have no mention of it. Some have merely a passing remark on specific vulvitis. For instance, Professor Eustace Smith remarks that cases of specific vaginitis may sometimes occur, but they are very rare.

In W. H. Day's "Diseases of Children" a clear description of purulent vaginitis is given, stating that the disease is obstinate in character in spite of cleanliness and most careful treatment, but ascribes its origin to weakness of constitution and strumous habits.

In the last edition of Ashby and Wright, after ascribing the cause of vulvitis to neglect and dirt, and often to irritation of thread-worms, we find the following remark: "Very rarely indeed is it the result of attempted rape, and such charges are often brought against innocent persons." Quite a different view on the subject is taken by Professor E. Henoch. In his lecture on purulent vaginitis we find the following statement: "In such cases one is apt to suspect that there has been an attempt of assault, and I know from my own experience that the suspicion is sometimes only too well founded. I have notes of a whole series of cases of children between four to eleven years of age, falling victims to brutality, indecency, or a certain superstition in some of them. In some of them there had been an actual attempt at rape, or there might have been indecent manipulation."

In my practice in a thickly populated tenement district, I have met a considerable number of cases of vulvo-vaginitis. Some of them have been under treatment for quite a long time as "simple" vaginitis; but not yielding to treatment, the parents thought it advisable to consult another physician. In one of these cases, L. W——, a girl about three years of age, I was able to trace the origin of the disease to direct infection. A boarder in the house, who was suspected, confessed that he infected the child by direct contact.

Another case, R. H——, a girl about four years of age, was also suffering very long from a purulent discharge from the vagina. The mother suspected her child to have been the victim of indecent manipulation, but no confession could be secured from the suspected person. The character and persistence of the discharge, the pain during micturition, and swelling of the vulva, were sufficient evidence that the mother's suspicion was well founded.

On June 4, 1893, Mrs. S. A—— brought to my office her infant, E. A——, aged two, who was suffering from a purulent discharge from the vagina. The labia and mucous membrane were red and swollen. Suspecting strongly it to be a case of specific vulvo vaginitis, I began to question the mother whether she was suffering from a similar discharge. She assured me that she was not, and was ready to prove it by an examination. She was equally sure that her husband was free from any such disease. Further inquiry, however, revealed the fact that a young man, a relative of hers, living in her house, was taking medicine for a long time. He was very fond of the infant and very frequently had her in his bed. It was ascertained that the young man was suffering from gonorrhœa. I took the child to Dr. W. L. Stowell's clinic, at the University Medical College. The discharge was examined by Dr. F. Abbot, Jr., and quite a number of gonococci was found.

Soon after a brother of the baby, aged six, was brought to my office with the same disease. There was a copious purulent discharge from the penis, pain on micturition, and all the symptoms of a severe gonorrhœa. The mother, being alarmed, asked me to put the boy in a hospital. Accordingly, I sent him to St. John's Guild Hospital, where he remained for several weeks and was discharged not much improved.

While he was in the hospital a brother of his, aged

eight, had a mild attack of gonorrhœa. He was suffering from a constant sticking pain at the meatus urinaris, which pain was much aggravated during micturition. On squeezing the penis a few drops of pus was passed out. Both boys were sent to the City Hospital. They remained there a few weeks and were discharged in very much the same condition as admitted. The infant, aged two, recovered completely. The eight years' old boy is improved, while his younger brother is still suffering from a purulent discharge and pain. Is it gleet?

The cases reported here seem to me to be interesting and instructive in many ways. It is quite probable that specific vulvo-vaginitis is not so rare as it is generally supposed to be, and it is very important that the attention of the profession be called to this evil. Many cases of so-called simple vaginitis are in reality specific in their nature, and would prove so if frequent microscopic examination of the discharge be made.

Although the majority of the text books claim an innocent nature of the discharge in obstinate cases of vulvo-vaginitis, I am inclined to believe with Professor Henoch, that many of these cases are due to indecent manipulation by persons suffering from gonorrhœa. In some of them there may have been an actual attempt at rape.

Is it not possible that the well-recognized infectious nature of simple (?) vaginitis may be due to the fact that it is not so simple after all?

Progress of Medical Science.

Arthrodesis. — Dr. Roersch, of Liége, has recently called attention to a special application of resection of the knee to which little attention has been paid, and which, even when the recognized indications for this operation were more numerous than at the present day, was seldom noticed in text-books on surgery. In most of these books it will be found that the list of such indications deals exclusively with instances either of some morbid condition limited to the joint or of crippling of the limb from previous articular injury or disease. Of late the tendency with most surgeons has been to diminish the range of resection, especially with regard to the knee, and to very few must the idea have occurred that removal of this joint while in a sound condition might prove indirectly beneficial for the relief of the results of non-articular disease. We are reminded, however, that in 1878 Albert, of Vienna, resected both knees, which were structurally normal, of a girl affected with essential paralysis of the lower limbs, with the object of establishing anchylosis and of converting the atrophied and yielding members into two firm columns of support. To articular resection performed with this aim the title of arthrodesis has been given. Albert's example has been followed by Von Winiwarter and several German surgeons, and his innovating orthopædic method has recently met with firm supporters in France. Roersch, in his review on the history of arthrodesis, omits to mention that the method has been tried in this country also, and practised in cases of paralysis of the lower limbs by Mr. Wright, of Manchester, and by Mr. Jacobson, of Guy's Hospital.

While Albert and most of his followers would regard arthrodesis as the suppression of a healthy joint with the object of rendering a paralyzed limb firm and solid, Roersch would apply the term to the establishing of anchylosis in a diseased as well as in a sound joint. A resection of any weak and loose joint would thus be regarded as an instance of arthrodesis, and the method thus called would have included in its list of indications arthritis deformans and tabetic and other neuropathic affections of joints. Roersch would extend the list still further, and regard secondary resection for failure of anchylosis after removal of a diseased joint as a measure of arthrodesis. He would add also resection of the extremity of the bone in cases of congenital and other forms of luxation in which reduction cannot be maintained. Still further indications are found in old and aggravated club-foot and in paralytic talipes. This extended application of the term cannot fail to cause much confusion, and it would be better to restrict it to its original meaning, so as to imply by its use the operative suppression of a very loose but otherwise healthy joint in cases of infantile and other forms of persistent muscular paralysis.

The knee, although it presents the most favorable conditions for the establishing of osseous anchylosis, is not the only joint on which arthrodesis has been performed. Both the ankle and hip joints have been resected in cases of paralytic affections of the lower extremity, the former perhaps more frequently than any other joint, the latter but seldom. In the upper limb indications for arthrodesis do not often occur. By abolishing the movements at the shoulder, much weight may be taken off the muscles of a paralyzed arm, and such movements as can still be performed at the elbow are rendered less difficult. These objects, however, may be attained more effectually by the use of an artificial support, particularly as resection of the shoulder is unlikely to result in osseous anchylosis. Arthrodesis has in some few instances been practised at the elbow, and in one case of infantile paralysis of the upper extremity von Winiwater excised the wrist. In arthrodesis for paralytic weakness of the lower limbs it is usually found necessary, in order to afford sufficient support, to operate on more than one joint. Wright removed both knee and ankle of the same limb. Von Winiwater also removed both these joints in two cases. In one case this surgeon operated on both knees at the same time, and in another removal of both knees was followed, after an interval of a month, by removal of both ankles. Döllinger has recently operated with success on the three principal joints of the same lower extremity. In the opinions of most surgeons the joint to be first attacked is the knee.

Of the forms of muscular paralysis of the limbs, which by their effects on the joints may indicate arthrodesis, those which seem most favorable to the operation are such as are due to anterior poliomyelitis. Certainly we may regard as suitable for this treatment many cases of infantile paralysis in which the joints of the affected limb are either very loose or fixed in an abnormal position by muscular contracture. Such conditions, as Roersch points out, condemn the patient to a state of almost absolute disability for the rest of life, while the general health often leaves nothing to be desired. Albert has operated in cases of paralysis following enteric fever and variola. Incurable muscular paralysis caused by ununited section of one or more nerves, and also paralysis due to neuritis, are further indications of arthrodesis. This treatment has been recommended also in cases of progressive muscular atrophy.

With regard to the results of this heroic treatment, which must necessarily be practised on those who would seem to be unfavorable subjects for any kind of surgical intervention, a most striking fact is the freedom of the operations from any serious risk. Of the ten cases treated by Von Winiwater, which are reported in Roersch's paper, not one had an immediate fatal result, and no mention of such misfortune is to be found in any of the numerous cases that have been recorded by other surgeons. Such results are remarkable, as *opérations de complaisance*, of which arthrodesis may be taken as a good example, are, as is generally believed, peculiarly subject to risk. We need, however, definite information as to the later results of this treatment, and the amount of benefit to be derived from it. Jacobson and Wright have obtained good results, but hitherto, we believe, very few cases have been recorded in this country. In France arthrodesis has found several warm supporters, and Roersch, one of the most zealous of these, asserts that it has been attended with much success. The results obtained by Von Winiwater in most of his cases of infantile paralysis seem to have been very favorable, several patients being able after resection of two or more joints to move about without crutches or any artificial supports

to the paralyzed limbs. Death occurred after long intervals in two cases, in one from injury, in the other from diphtheria, but there is no record of any failure. Petersen, who excised the knees in two cases of infantile paralysis, states that his patients were delighted with the results. On the other hand, Wolff is disposed to commisserate the subjects of these multiple operations, and to regard their future lot as being far from enviable.—*The British Medical Journal.*

Effects of the Influenza Poison on the Lying-in Woman.—At a recent meeting of the Obstetrical Society of London (*The Lancet*) a paper was communicated by Dr. Addinsell on the "Effects of the Influenza Poison upon the Lying in Woman." He described several cases which had been under his care, and showed how they differed from puerperal septicæmia. He also cited the case of a patient who suffered from dengue in her confinement, and its effects on the lochia and milk, pointing out the strong resemblance between this disease and influenza. He considered that influenza attacked the weakest spot, quoting instances of several patients seized with the disease at the time of menstruation who suffered, and still suffered, from ovaritis traceable to that time, and he finally suggested that the nervous symptoms so often seen in puerperal septicæmia, and which were very marked in the most severe of his series of cases, might be due to the necrotic elements of the endometrium not being carried off in the usual lochial discharge, and thus being absorbed and carried into the cerebral circulation. The President said that he had seen two cases of febrile illness, one consisting of repeated febrile attacks following delivery, the other of a febrile attack interrupting recovery after the opening of a pelvic abscess, and he had concurred with the physicians in attendance in ascribing those cases to influenza, rather because no other cause was found than because there was anything distinctive in the illness.

Treatment of Fracture of the Femur in the New-born.—Dr. Ellefson has recently had opportunity to try a method of treatment of this form of fracture which he found recommended by Bouchut. Fracture of the femur in the new born is accompanied by difficulties which can only partly be overcome. The various kinds of bandages which have been employed are nearly impossible to keep clean and dry; frequent changing interferes with healing. At a breech presentation where the midwife was so unfortunate as to break the femur at about an inch from the hip joint, he was called to dress the fracture. Two splints were applied, covered with flannel and corresponding with the anterior and posterior surfaces of the femur; then cotton wadding, and around the whole a circular bandage. The thigh was fixed in extreme flexion upon the child's abdomen by a few turns of the bandage. A little cushion is placed between the child's leg and thigh. The few turns of circular bandage will naturally become wet through, but they can be changed easily without disturbing the fracture. After fifteen days the bandage was removed and the fracture was found to have healed without shortening or disfiguration of the thigh. The forced flexion of the thigh and fixation to the abdomen did not seem to have disturbed the infant, which was perfectly well during the whole time.—*Annals of Surgery.*

Resection of the Rectum with Transverse Separation of the Sacrum.—Dr. Levy proposed, more than three years ago, a method of resection of the rectum, the prominent features of which included the proposition, 1, to leave intact the lower or external anal sphincter; 2, to preserve the coccyx; 3, to avoid injury to the levator ani. He has more recently modified his procedure as follows: An arch-shaped incision is made through the skin and fascia, over the lower end of the sacrum. This is located a finger's breadth above the points of the cornua of the coccyx. Laterally it is continued upon either side to a point five centimetres from the tuberosity of the ischium, and parallel to the course of the fibres of the gluteus maximus. Below the fourth sacral foramen the incision is carried to the bone, the lateral muscular fibres are separated by a blunt dissection until the lateral edges of the greater sacro-sciatic ligament are reached. This is carefully divided upon a grooved director. A chain-saw is now introduced in front of the sacrum, a special elevator being used to separate the soft parts upon its anterior surface; the chain saw is passed between these and the bone. The flap of bone and skin is now drawn downward, the coccygeus and sacro-sciatic ligaments being still further divided, if necessary. The pudendo-hemorrhoidal and the fourth sacral nerves are not injured by this procedure. In case an insufficient amount of space is afforded, the osteo plastic flap may be divided longitudinally.—*Annals of Surgery.*

Treatment of the Pyodermites.—Professor Leloir, in an article on this variety of skin diseases, in which he lays particular stress on the infective origin of the diseases, concludes with the following suggestions on treatment. He says: The treatment should have a double object in view. 1, We must sterilize the pyodermites; 2, we must prevent secondary auto-inoculations by the fingers, clothes, etc., of the patient. The treatment can be carried out in the following manner: Sterilization by antiseptic substances. Isolation by occlusive dressings. Added to these, therapeutic or medicinal remedies in accordance with general indications. For the superficial pyodermites, such as ecthyma, impetigo, etc., he employs ointments of boric or salicylic acids, salol dermatol, and more rarely of iodoform and perchloride. These pastes and ointments are applied on lint or gauze. The more deeply seated pyodermites, such as boils, anthrax, etc., he treats with the following paste:

Hydrargyri	parts 20
Terebenthini	" 20
Emp. plumbi	" 50
Resinæ	" 10
Acid. carbolic	" 7
Extract. belladon	" 10

This is spread on linen to the thickness of a silver dollar, and applied so that it extends beyond the affected area about one and a half inch. It should be covered with gutta-percha and a thick pad of lint, and then bandaged. This dressing is left on for twelve or sometimes twenty-four hours. In cases of anthrax, before each, dressing the part affected should be sprayed with carbolic acid diluted, the skin should then be cleaned with a tampon soaked in iodoform ether, or in certain cases with an alcoholic solution or salol or resorcine. In order to release confined pus, punctures should be made with the thermo-cautery. The cavities left by sloughs should be dusted with powdered salol or iodoform, or washed out with solutions of the same.—*Provincial Medical Journal.*

Gallobromol.—According to Lépine this is the pharmaceutical name for dibromo-gallic acid. It is gallic acid in which two atoms of bromine have replaced the two remaining hydrogen atoms of the benzin radical. It occurs as fine white needles, very soluble in alcohol, ether, and boiling water, and sufficiently soluble in cold, so that it can be administered in solution. Internally it is prescribed in wafers in dose of seven grains. Thus administered it may give rise to gastric heaviness. It is used as a bromide in epilepsy, for the purpose of diminishing the attacks. Basing an opinion upon a small number of cases, it appears to be less efficacious than the potash salt. In other conditions, notably a case of chorea, which is not likely to be much benefited by the bromide of potash, it seems to be of use. Although an organic combination of bromide might be assumed to be less likely to be dangerous than an inorganic salt, yet the author says that caution must be observed, and that two drachms and a half per day is to be used with care.—*La Semaine Medicale.*

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MEDICAL BOARDS AND HOSPITAL MANAGERS.

A RECENT attempt to bring before the medical profession the question of the treatment of Medical Boards by the Managers of Hospitals, provoked unfortunately a somewhat sharp discussion at the Academy, and showed again how quickly a certain number of physicians will side with the higher and moneyed powers, and against their medical brethren.

The facts in regard to the New York Infant Asylum have been presented to our readers, and we need not weary them again with the details.

On the one hand was a Board of Physicians which had been exercising the privilege of nominating to the Board of Managers the men who were to serve as visiting physicians with them. This Board was suddenly shown that it did not possess the privilege it had been exercising, and was categorically refused it by the President. We are credibly informed also that the members of the Medical Board, most of whom had served faithfully for years, were treated with discourtesy, personal interviews being denied, written communications ignored, and contemptuous epithets applied to the medical men. No attempt at conciliation was made, and no expression of appreciation of the medical services was expressed. Yet these gentlemen had been instrumental in reducing the mortality-rate at the Maternity to as low a rate as in any of the most famous metropolitan institutions. At great personal sacrifice, also, several severe epidemics had been stamped out, and the medical status of the institution placed on a high level.

Despite this, these gentlemen were refused the ordinary attention given by any "boss" to his servants who have a grievance.

Taking all the facts into consideration and allowing weight even for the technicalities by which Boards of Managers hedge in their rights, we believe no fair-minded person could deny that the Medical Board was treated with gross injustice. We are surprised that any reputable medical men could be found to come to the Managers' defence. We cannot imagine any just reason for so doing.

We do, however, appreciate the feelings of some who do not wish the Academy to be made the scene of acrimonious debate. These gentlemen are perhaps unduly hyperæsthetic on this point; for the Academy is not too good to be the champion of a just cause. However, discussion and difference of opinion have arisen owing to the activity of the partisans of the Managers. These latter gentlemen are no doubt now chuckling over the doctors' quarrels and congratulating themselves on the ease with which laymen can play fast and loose with their medical servants. Nevertheless, we venture to predict that there will be some very radical changes in the conduct of the New York Infant Asylum; and that it will be a long time before physicians of repute will connect themselves with an institution whose management has so thoroughly discredited itself.

A COMMON TONGUE FOR SCIENTISTS.

THE recent meeting of the Pan-American Congress in Washington has once more forced upon the notice of medical men the desirability, if not the necessity, of having one language to serve as a common means of communication between those of different countries. The official languages were four in number: French, Spanish, Portuguese, and English. There was doubtless a goodly number, especially of the South American adherents of the Congress, who could understand two of these tongues, a smaller number may have been more or less familiar with three; but we venture to say there was not a score of those present who could understand everything that was said in all of these official languages. But this was not all. Professor Czerny, of Heidelberg, was invited to attend the Congress, and in reply to the invitation published an open letter in a German medical paper, to the effect that neither he nor many of his colleagues would attend unless German were added to the list. The managers of the Congress thereupon adopted a rule making it allowable to speak in any language. Had many of the invited guests availed themselves of this privilege, the confusion of tongues would have been sorry indeed. It may be said, without fear of contradiction, that there was not one of those whose good fortune it was to assist at the meetings of the Congress, who would not have found his pleasure greatly enhanced had the proceedings been conducted in one language, understood of all and recognized as the sole official tongue.

This question of a universal language for the convenience of scientists has been discussed before learned societies in this country and elsewhere, and the desirability of adopting such a language has also been dwelt upon at different times in these columns. If anyone of the three tongues, French, German, and English, which are always the official languages at the international medical congresses could be chosen, English would have the strongest claim, for that is the one spoken by the greatest number of people in the civilized world. According to an estimate of Mulhall, English is spoken by 111,100,000 people, while 75,200,000 speak German, and but 51,200,000 speak French. Forty years ago, indeed, Jacob Grimm, in his treatise on the origin of language, called English a world language, and expressed his belief that it would prevail more and more extensively throughout all portions of the earth. But national jealousies render the choice of any one of these three tongues impossible, so we must look elsewhere for a language that would be acceptable to all.

Some time ago, in the course of some remarks upon this subject, we suggested Greek as a language which might,

with propriety, be adopted as the medium of communication between scientific men of different countries. It is a tongue intimately associated with medicine and other branches of learning, a large number of scientific terms being derived from it; it is a living language spoken by several millions of people; and it is, when taught according to modern methods, not a difficult speech to learn. In a brochure recently published,[1] Dr. Achilles Rose, of this city, pleads earnestly and forcibly for the adoption of this language by science. There are many men, even some college professors of Greek, who call it a dead language, and regard the Greek spoken to-day in Athens as a patois made up chiefly of Slavonic and Turkish words, though written with ancient Greek characters. Dr. Rose demonstrates the absurdity of this view, and also shows that it is not very difficult for adults to acquire a good conversational knowledge of Greek. The monograph is most interesting, and we hope the accomplished author will prepare a translation of it for the benefit of his English speaking colleagues. The arguments presented in favor of the adoption of Greek for scientific writings and as the common speech of scientific assemblies, are most convincing; and if this beautiful tongue ever arrives at such a dignity, which we believe to be not impossible, it will owe much to the able advocacy of Dr. Rose in this and future writings; for we hope he will not let his pen rest now that he has so well begun.

FOOTBALL MORTALITIES.

Already five deaths have been reported this fall from accidents while playing football, one each from New Jersey, Indiana, Ohio, Wisconsin, and Connecticut. The two last were caused by fracture or dislocation of a cervical vertebra and crushing of the spinal cord. One of them occurred near Farmington, Conn. The second took place during a game between the elevens of the Toledo (O) High School and the Adrian (Mich.) College, which was played at Adrian a week ago. A Toledo player, Carew, says the report, "had the ball, and downed to save it. Three Toledo boys dropped to save him, and in an instant the Adrian team was upon them. When the struggle was over, Carew remained motionless upon the ground. The crowd cried, 'Fake!' but it was soon discovered that the young man's neck was dislocated." Upon examination it was found that his body was paralyzed from the chest down, and his spinal column injured, and he died the next morning without having recovered consciousness. Another member of the Toledo team was kicked in the groin, and injured so badly that he could not return to his home. A third player suffered serious injury to his right leg. English newspapers just received mention the death of a football player in West Hartlepool, "from the effect of injuries received in a football match, when he was kicked severely in the stomach."

English medical journals every year report a long list of deaths and casualties from football; but up to this year no fatal accident, so far as we know, has been reported in the United States. A mortality of five with the football season not over, however, is most startling. The general results of football playing have been heretofore considered so good as to outweigh some of the disadvantages. But the question now arises whether half a dozen deaths and hundreds of serious accidents are not too great a penalty to pay for this sport.

The football games that occur in this city have degenerated into great professional shows which are made the excuse for unlimited betting, and which end in vulgar carousals. It is quite time for college authorities to interfere.

[1] Griechisch als allgemeine Sprache der Aerzte und Gelehrten überhaupt, von Dr. Achilles Rose. New York: Gustav E. Stechert, 1893.

DOCTORS AND DISPENSARY BOARDS.

In a recent discussion on the dispensary system, held at the Academy of Medicine, several laymen who are connected with the management of dispensaries took part. It was most instructive to hear the dispensary discussed from the managerial point of view; and a remark made by one of the managers deserves particular attention, for, if true, it is both painful and extraordinary. Mr. C. G. Savage said that those dispensaries in New York, on whose Boards of Managers there were doctors, were the worst in the city. We trust that Mr. Savage has facts to sustain this remarkable statement.

So far as our knowledge and information go it is quite untrue. The Out-patient Department of Bellevue Hospital, for example, is managed by a Board of Physicians, and since this has been done, this dispensary has performed most excellent work. Its defects are due only to the limited amount of money at its disposal. On the other hand, the Demilt Dispensary, which used to stand in good repute among the profession, has lost much, if not all, of its prestige through the narrowness of its managers, and though excellently located, and possessing more than the usual supply of funds, its patronage remains practically the same that it was twenty years ago. Meanwhile, two new dispensaries started on the East Side during this time, and managed entirely by physicians, have so prospered that they do more work than their older neighbor. We do not believe, therefore, that Mr. Savage's point was well taken. There are plenty of physicians who possess both professional knowledge and business capacity. If such men were on the Boards of Hospitals and Dispensaries, there would be much less friction, and fewer of the unfortunate misunderstandings which come usually from these Boards, regarding the medical men as paid employees, who can be dealt with as they wish.

A Spanish Medical Association.—A medical association for the protection of the interests of the profession and the fostering of professional brotherhood has been founded in Madrid, under the title of "Asociacion del Colegio Medico de Madrid." The meeting for organization was held under the presidency of Dr. Julian Calleja, Dean of the Faculty of Medicine, and a member of the Spanish Senate. Among the members of the provisional committee of management are the Marquis de Guadalerzas, the editor of the *Siglo Medico*, Dr. Angel Pulido, and most of the leaders of the profession in the Spanish capital.

Clams and Cremation.—A small crematory was recently built in a New England town, and the dedication ceremony consisted in a clam-bake, the oven of the crematory being used to cook the clams and corn.

News of the Week.

Professor Pozzi, of Paris, while on a visit to this city, was the recipient of marked attention by gynecologists. Dr. J. Byrne, of Brooklyn, gave him a dinner on the evening of Thursday, November 16th, and Dr. W. Gill Wylie, of New York, one on Friday evening following. On the latter occasion the leading representatives in the different branches of medicine were present, making as distinguished a company for its size as has been gathered for a long time about one table. There were no regrets before or after the dinner.

Since the Financial Crisis Detroit physicians are said to have increased their fees. We might do it here for all the notice patients would take of it.

Manual Treatment of Bow-legs.—Dr. Samuel Ketch, of this city, writes: "In the MEDICAL RECORD of November 18th appears an abstract of an article on the 'Manual Treatment of Bow-legs and Knock-knee,' read by me at the annual meeting of the American Orthopedic Association, held at St. Louis, September 19th, 20th, and 21st. In it I am reported as advising against 'trusting this work to the mother,' and urging that 'the child be brought to the surgeon three times a day.' What I really stated was that I preferred to carry out the manual treatment by exercises personally as often as practicable, but advocated the co-operation of an intelligent parent or nurse. Also that these exercises should be practised at least three times daily, and in this way presume the error arose regarding 'three visits a day to the surgeon.'"

New Medical Organization of the National Guard of New York.—A new hospital service order has been prepared by Surgeon-General Bryant. It is in brief an order to establish a hospital corps for the National Guard, to take the place of the detail of four from each company, which constituted the cumbersome ambulance corps. The new hospital corps is to consist of a detail of eight from a regiment and four from a battalion. No division smaller than battalion is recognized. These details are to be placed under the command of the medical officers and trained as hospital assistants. They are to receive instructions first in aiding the injured, and where hospitals are organized, as at the State camp, they will be utilized as nurses, cooks, attendants, and doctors' assistants. At camp the most they will have to do will be to carry men who have been overcome with heat to the hospital wards and in reach of the doctor. In case troops are called out to suppress rioting, as at Buffalo, a field hospital would probably be organized and the corps would be placed on duty there. The new order also provides for an emergency increase in the number of the hospital corps by giving commanders of companies the power to detail men to act as "litter bearers."

Spelling Made Hideous.—The *Medical Press and Circular* prints the following Philistine editorial: "Many of the American medical journals are now becoming so hideous in the matter of spelling that it is a difficult matter even for an ordinary educated English medical man to read them without wishing to throw up his task in disgust. The van in this insane effort to appear novel is led by the Philadelphia *Medical News*, and now we learn that the editor of that journal is bringing out a new edition of a 'Medical Dictionary of Terms,' in which all this new-fangled and absurd method of spelling will be incorporated. The rising generation of young American medicos are to be pitied if they are required to adopt the teaching in orthography which will obtain in this 'Dictionary.' We are glad to see that some of our leading contemporaries in the United States have not been led into disfiguring their columns by such words as 'chemic,' 'bromid,' and 'physiologic,' together with others equally absurd and hideous. The introducer of this *fin de siècle* method of spelling affirms that no argument can be advanced against it. But what about the rules of grammar and prosody so far as the English language is concerned. Perhaps under the circumstances it would be best at once to bring out a book dealing with the subject of 'The American Language: its Grammar and Orthography,' and then there would be no difficulty in showing that the American method of spelling had nothing to do with the English language."

Leprosy Decreasing.—The report of the "Leprosy Commission of India," fills a bulky volume of 456 pages. The geographical distribution of leprosy throughout India is lucidly set forth in three large maps, colored. These show the changes in the number and proportion of lepers in the three Presidencies, according to the three census returns of 1871–81 and 1891, and the most affected districts. The last, that of 1891, exhibits a general decrease of leprosy all over India. A very satisfactory condition brought about chiefly by the efforts made of late years to improve the sanitation of the country. Yet one William Tebb says leprosy is increasing, on account of vaccination.

A Physician's Gift to San Francisco.—Dr. Levi C. Lane, of San Francisco, has presented to the city of San Francisco a large building with two wings, each two stories high, which he has had built for a fully equipped hospital, to be used as an annex to the Cooper Medical College of that city.

A Home for Epileptics in Brooklyn.—An effort is on foot in Brooklyn to establish a non-sectarian home for epileptic patients. A suitable lot has already been secured, and it is desired to raise a building fund of not less than $10,000.

The Date of the Introduction of Syphilis into Europe.—This subject is discussed by Professor Binz. The conclusion he comes to is that constitutional syphilis was unknown in Europe before 1493, in which year Columbus arrived at Barcelona from Haiti and brought with him the disease, which his followers had contracted among the Haitians. It seems that the complaint had been known and general for a very long time in Haiti and was not at all severe at that time.

Manitoba Medical College has upward of a hundred students this session. The college has been refitted.

The Total Number of matriculated medical students in the universities of the German Empire in the summer semester of 1893 was 8,838.

The Dominion Medical Monthly is the name of a new medical journal published in Toronto.

Cincinnati Physicians in Politics.—The Cincinnati Academy of Medicine has shown that it may be a power for good in politics. The *Lancet and Clinic* says: "In

the vote on the Hamilton County Senatorial ticket there were cast for the Democratic candidates who were recommended by the Academy of Medicine an average of 2,672 votes more than the number cast for the candidate not so recommended, while on the Republican ticket the candidate recommended by the Academy of Medicine received 914 more votes than the average number cast for the two candidates not so recommended; which indicates that in the face of a singularly partisan election, the members of the medical profession were able to poll an influential vote in Hamilton County of 3,586 in favor of candidates pledged to support a non-political measure, and against political party principles. Those 3,586 votes are the representatives of a very potent power in politics." The Cincinnati profession is trying to secure proper medical legislation and to "down" quackery and humbug. We wish it success.

Reviews and Notices of Books.

Introduction to the Catalogue of the Collection of Calculi of the Bladder, etc, Removed by Operation. By Sir Henry Thompson, F.R.C.S., etc. Pp. 39. London: J. & A. Churchill. 1893.

This is, as its name implies, a preliminary catalogue of the collection of calculi presented, by the distinguished genito-urinary surgeon, to the Hunterian Museum of the London College of Surgeons. It is intended to issue at some future time a more elaborate catalogue. This preliminary announcement is largely statistical, and as such useful for consultation.

Transactions of the Medical Society of the State of Pennsylvania for the Year 1893. Pp. 288. Philadelphia: Binder & Kelly. 1893.

Transactions of the Medical Society of the State of Michigan for the Year 1893. Pp. 368. Detroit: John Bornman & Son. 1893.

Both volumes are creditable to the profession of the States named. The list of topics discussed is timely, and an intimate knowledge with the latest advances of medical science is everywhere displayed.

Transactions of the American Laryngological Association. Fourteenth Annual Meeting, held at Boston, June, 1892. Pp. 118. New York: D. Appleton & Co. 1893.

Nineteen papers upon current topics in rhinology and laryngology, make up the present volume. The high standing of this society, both here and abroad, is fully maintained by the present Transactions. Several new instruments are figured and described.

The Throat and Nose and their Diseases. With one hundred and twenty illustrations in color, and two hundred and thirty-five engravings. By Lennox Browne, F.R.C.S.E., Senior Surgeon to London Throat Hospital, etc. 8vo, Pp. 734. Fourth edition. Philadelphia: Lea Brothers & Co. 1893.

Although the present edition contains but eighteen pages more than its predecessor, the process of condensation has been carried on to such an extent that it contains considerably more information, which it is needless to say is brought up to date in the fullest possible sense of the term

Rarely has any treatise on any specialty met with a more cordial reception than the one under consideration. While the author is, like all writers of firm conviction, a trifle dogmatic at times, his mind is open to truth from every quarter, and his pages are welcome alike to the general and special worker.

A portion of the space gained by abbreviation has been devoted to further details of the influence of micro-organisms in producing throat diseases. The bacteriology of diphtheria is tersely reviewed, and the writer gives his adherence to the now commonly held views regarding the bacillus and pseudo-bacillus. He adheres to the American and continental idea, that the malady is primarily a local disease with secondary manifestations.

Under the heading of croupous rhinitis, in which he includes the fibrinous or plastic forms, a statement is made to which exception may be taken. It is declared that no one has found the Klebs-Löffler bacillus in the exudate. As a matter of fact, it has been found by several observers.

The chapters on syphilitic and tubercular laryngitis are well written. The use of the intubation-tube for stenosis from these processes seems not to be as much followed in England as in this country. Encouraging mention is made of the lactic acid treatment of Krause and Hering for tubercular laryngitis, though the enthusiasm of the continental workers is not shared by their English *confrères*. He has not found the method beneficial in purely laryngeal cases, for which he prefers menthol in olive oil as recommended by Rosenberg.

A most generous recognition is given to the work of American laryngologists, and the references to authorities appended to each of the principal chapters is an arrangement to be commended.

The main feature, perhaps, of the present edition has been the expansion of that portion which deals with the diseases of the nose. He pays his attention to Sir Christopher Heath by saying that "it is to be greatly regretted that a general surgeon, who may be said to have won his spurs by a prize essay on diseases of a region involving the accessory cavities of the nose, should have permitted himself and been permitted to recently deliver, in one of our royal colleges, a lecture which had for its avowed purpose the pouring of ridicule on the progress of nasal surgery at the hands of specialists." "Derision," he adds, "has recoiled on the derider."

The author is to be commended on the excellence of his work, and congratulated that a new edition has been so speedily called for.

A Text-book of Medicine for Students and Practitioners. By Adolf Strumpell, M.D., Professor and Director of the Medical Clinique at Erlangen. 2d American Edition, translated by permission from the 2d and 3d, and thoroughly revised from the 6th German Edition, by Herman F. Vickery, A.B., M.D., Instructor Clinical Medicine, Harvard University, and Philip Coombs Knapp, A.M., M.D., Clinical Instructor Diseases Nervous System, Harvard University; with Editorial Notes by Frederick C. Shattuck, A.M., M.D., Jackson Professor Clinical Medicine, Harvard University. New York: D. Appleton & Co. 8vo, pp. 1001. 1893.

The elaborate titular display which presents itself to the reader is in reality the broad and inviting porch through which he passes to the realization of what can be found within; what impresses one on the perusal of the work, and in the critical examination of the chapters, is the earnestness of purpose of the author to teach intelligently, modestly, and effectually the inward significance of pathological indications as bearing upon clinical phenomena. No doubt is left in the mind of the student as to the eminent qualifications of the teacher and his rightful appreciation of the needs of his readers. The work, in fact, has infused into it a practical element which never fails to develop an interest in the subjects treated. The salient points of disease, its significant symptoms, and more especially the pathological explanations of the same, are grouped in such a natural and logical order that nothing is left to be desired in the premises. The arrangement of subjects is simple and easy of reference,

and is supplemented by an elaborate and very useful index. Withal there is a charming conciseness of style which is rather unusual in a work of its kind, and adds very considerably to its usefulness as a ready yet complete work of reference. Hence we are not surprised to find that it has won for itself a place as a leading text-book in many medical schools, not only in Germany but in this country. That it is destined to remain so will go without the saying. The translators and editor have adapted it to the necessities of the American public by omitting the prescriptions and references to the German pharmacopœia, and substituting therefor, as far as seems necessary, leading preparations from the American pharmacopœia, and on other points reconciling the details of American and European practices. The illustrations are sufficiently numerous, and serve a good purpose in fixing certain important diseased conditions referred to in the text. This is particularly noticeable in the article on nervous disease, which is exhaustively concise and fully up to the date of recent investigations in this rapidly growing branch of medicine. It is as a whole a well-arranged, concisely written, and valuable book for ready reference and careful study.

A System of Genito-urinary Diseases, Syphilology, and Dermatology. By various authors. Edited by Prince A. Morrow, A.M., M.D. Vol. I. D. Appleton & Co.

The first volume, which treats of genito urinary diseases, has been written by thirty-two of the best known men in that line of surgery, and the subjects have each been dealt with carefully.

While it cannot be said that anything absolutely new has been given, the book has great value, and will no doubt be well received by the profession. It is profusely illustrated, and will thus aid the reader in understanding the pathology, and the use of instruments more clearly.

The greatest objections to the work are the modes of treating spermatocele, in which the injection of carbolic acid is not mentioned; but the author prefers either the open operation of Volkman or simple tapping. On the other hand, the treatment of varicocele is not up to the most advanced method, as the subcutaneous ligature is alone given; in extreme cases the author advises ablation of the lower end of the scrotum, while a free excision of the enlarged veins is not spoken of.

Atlas of Electric Cystoscopy. By Drs. Emil Burckhardt and E. Harry Fenwick, F.R.C.S., England. With thirty-four colored plates embracing eighty-three figures. London: J. & A. Churchill, 11 New Burlington Street. 1893.

This Atlas, of seventy octavo pages, contains, as the conjoint work of two observers in distant cities, a series of personal observations in electric cystoscopy which will prove of the utmost value to all engaged in the mastery of this branch of genito-urinary work. The part contributed by Burckhardt comprises the drawings from his German edition, which were with one exception taken from life and drawn by the author himself. The first five plates illustrate the normal bladder, the rest being devoted to pathological states.

The impression is made of accuracy of drawing and strict reproduction of what was actually seen by the observer.

The work, which is published at 21 shillings, will interest all engaged in genito-urinary practice and those learning cystoscopy.

Transactions of the American Association of Obstetricians and Gynecologists. Vol. V., for 1892. 8vo, pp. 528. Philadelphia: W. J. Dornan. 1893.

This volume, which is of usual size and elegant make up, contains a great deal of practical material for the working gynecologist, and covers a variety of subjects. Most of these refer to the fashionable uterine (hysterectomy) and abdominal (laparotomy) operations. We notice with some surprise, however, that the gynecologists are appropriating the kidney in their field of operations; possibly, however, the urethral connection is sufficient to establish the claim. The great merit of all the papers is that they are short and that the discussions are practical and to the point. The volume is illustrated with striking pictures.

How to Judge a Horse. A concise treatise as to its qualities and soundness, etc. By Captain F. W. Bach. 12mo, pp. 180. New York: William R. Jenkins.

This is a little work which will doubtless be of use to the physician who may wish to know of points about a horse either for purchase or use. It includes matters connected with the anatomical make-up of horses, bits and bitting, saddles and saddling, driving and correction of bad habits, with extracts from the Rarey and Rockwell methods of training. It contains thirty illustrations, which are, however, not of high artistic merit.

Transactions of the Medical Society of the State of New York for the Year 1893. Published by the Society. 8vo, pp. 540.

Transactions of the New York State Medical Association for the Year 1892. Edited for the Association by Ogden C. Ludlow, M.D. Published by the Association. 8vo, pp. 834.

There is no State save that of New York which has two distinct State organizations that can publish two volumes of transactions, respectively, each year, and make such a good showing of scientific work. Taking the volumes side by side, we are almost tempted to make a comparison which would hardly be in favor of the older organization, but it is with no such spirit that we wish to deal with them. The quality and quantity of material in both are excellent, indeed, much beyond the average of transaction literature, and we can offer only congratulations rather than criticism.

A Manual of Medical Treatment or Clinical Therapeutics. By I. Burney Yeo, M.D., F.R.C.P., Professor of Clinical Therapeutics in King's College, London. 2 vols., 12mo, pp. 1374. Philadelphia: Lea Brothers & Co. 1893.

The object of this work is the study of disease from the point of view of treatment. It is such in a much broader sense than usually obtains in books of its class, in that the reasons for the therapeutical management of the different diseases are studied in their pathological relations to their symptoms and the well recognized effects of drugs upon certain conditions. Thus what the author terms rational indications for treatment are made apparent, in these days, when so much time and labor are expended in the study of purely pathological processes and their direct bearing on diagnosis, that the much neglected element of detailed treatment is duly recognized as the pivotal point of practical application for the reader. The arrangement of the subjects is the natural division of the various regions of the body, and the discussion of the different ailments has a distinctly practical turn toward the main purpose of the book. Standard formulæ are introduced from eminent practitioners where necessary, and all the drugs of recognized value are grouped in the order of their importance. The dosage receives careful attention, which is a feature that cannot be too highly commended. It cannot fail to be an exceedingly useful, suggestive, and instructive work to the physician who wishes to be well up in the present advanced and scientific therapeutics of the day.

The Relation of scrofuloderma to lupus is best explained by Unna's and Leistikow's theory, that scrofuloderma is an affection caused by the symbiosis of staphylococcus pyogenes aureus and bacillus tuberculosis—*i.e.*, scrofuloderma is a case of "mixed infection."—Smith.

Society Reports.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, November 2, 1893.

D. B. St. John Roosa, M.D., President, in the Chair.

The Late Dr. John C. Peters.—Resolutions eulogizing the life-work of the late Dr. Peters were read by Dr. F. A. Castle and adopted by the Academy.

The Importance of Early Attention to the Disability Caused by Infantile Paralysis.—Dr. A. B. Judson, in presenting a paper on this subject, said: I propose to consider briefly the question whether a certain class of patients should not be committed more entirely and more early than they are to the care of the orthopedic surgeon—a consideration as interesting to the family physician as to the orthopedist, as they meet in a friendly alliance to secure the greatest benefit for their common patient.

I refer to patients disabled by infantile paralysis. The child has passed through the stage of onset. Ergot, electricity, and massage have produced their legitimate effect, and we will say that the eighteen months which are believed to be the limit of spontaneous recovery from the paralysis, are passed. The friends and the patient, with many grievous misgivings, have become reconciled, or at least accustomed to disability and deformity which now seem to change for neither the better nor the worse.

What can now be done? The question whether such a patient may not yet receive benefit from the advance of scientific knowledge, or from the daily increasing facilities for the application of knowledge, will surely spring up in the parental heart.

Now, it is curious to note that the deformity in these cases is often found upon analysis to be a disability more than a deformity. Take a case, for example, in which the knee cannot be completely extended. When the patient is sitting there is no deformity, but when he stands the apparent deformity is due to a disability—an inability to extend the knee. How easy it would have been to prevent contraction of the hamstrings by providing for their repeated elongation by complete extension of the knee, easy comparatively for one who has given himself to such details and is habitually mindful of their importance, and free from the manifold cares which beset the average practitioner. And it should be borne in mind that cases sometimes occur in which shortening of the tendons begins in a manner not well understood, at a very early stage, before simple desuetude can be fairly accused of being the author of the mischief. The prevention of muscular and tendinous shortening, then, should receive attention on the part of the early observer of the case. It is not an obscure and difficult point, but one which has perhaps escaped the consideration to which it is entitled.

To recur to the disabled knee — and this part of the anatomy is used simply as a convenient example to illustrate points in the pathology and treatment applicable to all the joints—if the knee is kept extended at those times when walking is attempted, not only are the muscles and tendons kept in normal elongation, but the general welfare of the limb is assured. Neglected patients may be seen in the streets walking laboriously with extension of the knee produced by the hand pressed firmly at every step on the lower part of the thigh when the weight of the body is on that limb. It is doubtful whether this in any case prevents the final resort to a crutch, by the use of which the limb is made to dangle, being carried about as a worse than useless burden, twining limp around the crutch, subject to the painful affections which attracts the lower extremities in cold weather in the absence of healthy circulation, and more and more impeding locomotion; unless, as has happened many times, the adult patient seeks relief and improved locomotor ability in amputation and an artificial limb. If the knee is stiffened mechanically the pressure of the weight of the body in standing and the repeated concussion of the limb as the foot strikes the ground in walking and running, will improve the tardy circulation; but beyond this, and better than this, will be the development of unused muscular fibres and special groups of muscles, by whose action important motions will be acquired which would have been impossible if the limb had remained in suspension.

Now, in order to keep the knee firmly extended under the weight of the body in standing and walking, and to give use and development, as far as may be, to the fragmentary muscular system of the limb, apparatus is required; but it will not be obtained without authoritative medical advice and prescription, and as a rule the family physician cannot be expected to work out the tedious processes incident to treatment of this kind. It falls to the lot of the specialist, who can well bear the inconvenience attending final results which are more or less imperfect, after satisfying himself that he has done all that science permits to be done, and whose daily and hourly mastery of the necessary details has enabled him to reduce perplexing and complicating conditions to familiar routine. Treatment of this kind lies far outside ordinary practice, in which the physician renders such signal service. He makes his diagnosis, advises, prescribes, remains on guard against complications, foresees the crisis and prepares for it, leads the way cheerfully through convalescence; and medical science, so dear to us all, finds but another illustration of its power and beneficence. In one home a wasting fever has been finally resolved and the patient rises in perfect, or even improved, health from a bed where the grim alternative has been decided in his favor. In another the children have been happily carried through the perils of infection and resume their places at the table. But in the special practice adapted to the cases under consideration there is no fear of a fatal result and no rejoicing, and the object sought is at the best a palliation. But who will say that important service has not been rendered? for it should be remembered that the conservative and plodding practitioner along this line has for an ally one of the most potent influences in nature in the growth of the body. The popular reliance on this force, expressed in the common question—"Will the child not outgrow the ailment?" whatever it may be, is not always misplaced. Happy the physician who, imparting his confidence to the patient's friends, and relying on the exact science of the physicist, sees grace and power growing out of deformity and helplessness.

A good general rule in the treatment of deformity in a growing child, is to keep the part as near as possible in the desired shape as much of the time, day and night, as is practicable, so that the increment shall be on the right side of the dividing line between the normal and abnormal. The familiar proverb says: "As the twig is bent the tree's inclined." In the troubles following infantile paralysis the principle should be extended. We should not only persist in keeping the part as near the normal shape as we can, but we should also give as wide play as the crippled condition of the limb will allow, to the functions of motion and weight-bearing. From the very earliest attempt to walk, or to make use of the muscles and joints which are imperilled by the cord lesion, extraneous assistance should be afforded. It should not be said off-hand that the child is too young. The first and repeated question should be: Is the child not yet old enough, or is he not already giving sufficient evidence of a desire to make use of the questionable muscles and joints, to make assistance desirable or necessary?

When efficient treatment is begun it is easily continued. Improved ability is at once appreciated by both parent and child. It is well that such is the fact, for improvement does not stop with infancy or childhood. The process is slow and prosaic, but the benefit cannot be over-estimated in the opinion of the one who is in

the best position to judge of its value. A slight improvement in the gait, or an ability to walk a little faster or a little further without fatigue, confers lasting happiness, and the patient and physician are thus encouraged to go on to new achievements until, with one step after another gained, the outcome is an adult well able to follow the ordinary pursuits of life, in place of a being who had looked forward to hopeless dependence.

Dr. Hubbard said that if he should offer any criticism upon the paper, it was that it had not presented the case strongly enough in favor of orthopedic treatment. Many of the deformities which occurred after infantile paralysis might be avoided if the orthopedist were consulted earlier in the case, and he would put that period much in advance of eighteen months. He did not believe the application of a brace would have a tendency to interfere with spontaneous recovery, if there was any likelihood of this taking place at all. In one case of complete paraplegia affecting the lower extremities, and paralysis affecting the muscles of the back, the boy was unable to stand alone, and could scarcely sit without support. By the application of braces, coupled with the use of electricity, he was soon enabled to walk about, and could now cover considerable distances without any form of apparatus. Another case was mentioned, and he closed by saying that he believed in applying apparatus before deformity had occurred, rather than in waiting until afterward.

The Cause of the Deformities.—Dr. Henry W. Berg thought the apathy shown by the profession in the treatment of cases of infantile paralysis, with a view to preventing deformities, was due to the reasoning that it was impossible to restore the function to the destroyed gray cells which had led to the paralysis. The reasoning might be logical, but the premises were false. The deformities resulting from infantile spinal paralysis were due to one or both of two causes: 1, trophic changes in the tissues of the paralyzed member; 2, paralysis of muscles.

The active trophic changes could not be prevented; the passive ones, being due to inactivity of the parts, could be prevented by treatment. A high shoe, for instance, might prevent functional lateral curvature of the spine. "But far the greater number of deformities are due to contracture of healthy muscles. Paralysis of muscles always produces disability, but the resulting contractures in non-paralyzed muscles produce deformity. The theory of unopposed muscular tonus is untenable. . . . It is evident, then, that orthopedic appliances which will do the residual work necessary to complete the restoration of healthy opponents to their normal position when they have relaxed after contraction, can prevent contractures in such non-paralyzed muscles. Inasmuch as such contractures take time for their production, the sooner the case is treated the better."

The Clinical Picture Varying.—Dr. Henry Koplik thought that not all cases presented the same clinical picture, and the physician would like to know whether the case would prove to be one of those which would recover. Yet he agreed with Dr. Judson, that the sooner the orthopedist saw the patient the better. At any rate, as soon as the electrical reaction showed that there was permanent paralysis in the muscles, mechanical treatment should begin.

Dr. E. D. Fisher said that when the child was very young, twelve or eighteen months, he would be careful not to advise too early application of instruments unless deformity was already showing itself. As long as there was no deformity and the patient could make the necessary motions in the use of the limb, he would put on no apparatus; but as soon as deformity began, or as soon as appliances would aid in the use of the member, he would advise their employment.

Dr E. D. Townsend differed from Dr. Fisher. One could not tell just when deformity first began, nor just when an apparatus would first be of service. It was best to put on a support, make sure that the motions were made in a natural line, and that the limb was kept in normal position.

Dr. A. D. Rockwell spoke briefly of electrical treatment, and said that, while it was of benefit, its value had sometimes been over-estimated. He had faith in the continuous action of the galvanic current, in spite of the efforts usually made to produce muscular contractions by the interrupted galvanic current. The former tended to preserve what vitality was left in the muscles; the interrupted current tended to destroy that vitality.

Dr. Henry Ling Taylor read as follows: After an attack of infantile paralysis, the problem usually presented is how to make the most of the mechanical and vital possibilities of a damaged limb. There is at first a well-marked tendency to recovery in many of the paretic muscles, and this can be favored by keeping them in their natural relations by a mechanical appliance. In paralysis of the ankle flexors, for instance, the anterior tibial group should be protected from the damage of stretching by mechanically preventing the foot from dropping beyond a right angle. This can be done without impediment to flexion and harmful constriction, and benefits the calf muscles as well as the flexors, since it prevents the former from becoming permanently contracted. In a similar manner nearly all the deformities so frequently following poliomyelitis can certainly be prevented.

Dr. Judson has said that there is no fear of a fatal result and no rejoicing in treating these cases. On the contrary, when the child is enabled to walk off at once on the application of proper apparatus after years of utter helplessness, as I have several times witnessed, words cannot describe the keen rejoicing of the privileged spectators. By making locomotion possible in such a manner that weak parts are not only protected from injury, but stimulated to develop, and many hitherto inactive parts brought into use, the circulation and nutrition are stimulated, and it should not be forgotten that many dormant nerve-centres are brought into play, and also that the interests of the child are wonderfully broadened. I have not only seen cold limbs grow warm, and helpless ones active, but shyness and apathy give way to cheerful activity after the application of braces had enabled the patient to walk. Inefficient support is often worse than none, because if the patient tries to walk when the apparatus causes pain, or fails to hold the limb with precision, he will inevitably shrink and withhold volition. Many of the failures charged to mechanical treatment are due to lack of skill or lack of thoroughness. In protecting weak muscle-groups, use is often to be made of the principle of "limited motion," giving the patient the stimulus and benefit of a certain amount of motion, within safe limits. However, since Dr. Goldthwait, of Boston, has shown that muscular power remains good after so long as fifteen years of disuse, we need not fear to fix a joint in a correct position, if it were necessary, rather than condemn a person to helpless deformity.

There is another point that I wish to mention regarding treatment, and that is, the persistent use of dry heat to the limb. I know of nothing else that helps the circulation so much in these limbs as the application of dry heat. I apply it by means of a small hot box into which the limb is placed, the temperature being raised to 160° to 170° F. The limb is allowed to remain in the box for fifteen or twenty minutes, once or twice daily.

Certainly the importance of early expert attention to the disabilities caused by infantile paralysis cannot well be exaggerated.

Dr. A. M. Phelps thought that if the limb were properly braced there could be no question but that the nutrition would improve; that if the limb were not properly braced, contraction must take place. An ounce of prevention was worth a pound of cure. If there was contracture when the patient was brought to the orthopedist, division of the tendon and bracing was better than prolonged bracing without the use of the knife. He would

like to have a law passed preventing instrument makers who were not physicians from treating these cases.

The President suggested that the present law was sufficient to reach all illegal practitioners.

A Word for the General Practitioner.—Dr. Reginald H. Sayre thought that many of the cases under discussion could be successfully treated by the general practitioner, and it was especially desirable that this fact should be recognized by the many who were not accessible to the orthopedist. A large part of the work of the orthopedist consisted in rectifying deformities which should not have been allowed to occur. Incidentally, he said, he had found great benefit from faradism.

Dr. A. Jacobi wished to speak briefly from the standpoint of the general practitioner, as he belonged to that class. He quite agreed with Dr. Sayre, that it was unnecessary to send all cases of infantile paralysis to the orthopedist for mechanical treatment. This could be carried out by any well instructed physician, and he remembered that it was, many years ago, at Krachowitzer's clinic. He also agreed with Dr. Sayre, that much could be done with faradism as well as with galvanism. Among other remedies to be mentioned was the subcutaneous injection of strychnia once a day, or every other day. He had found it improve the excitability and contractility of the muscles considerably.

The Coroner System.—The resolutions looking toward the abolition of the coroner system, presented at the last meeting, were taken from the table, and after some debate a committee was appointed by the President to change their form, so as to meet with the approval of all who had taken part in the discussion. The President appointed on the committee, Drs. Girdner, Armstrong, and A. Jacobi.

THE PRACTITIONERS' SOCIETY OF NEW YORK.

Stated Meeting, October 6, 1893.

Charles L. Dana, M.D., President, in the Chair.

Mechanical Vibration in the Treatment of Disease.—The President: The object of this apparatus is to produce mechanical vibration in the treatment of disease. This method of therapeutics came into use about twelve years ago, having been first employed by a French physician who found that the tuning-fork when applied over a nerve produced a certain amount of anæsthesia and thereby relieved pain. The method was very much improved by Dr. Granville, an English physician, who devised an apparatus for producing vibration in different forms. He wrote a book upon the subject, showing that by different kinds of vibration one could produce anæsthesia and relieve pain. He advocated the method for a number of symptomatic troubles. A little later a Swedish physician devised a machine which was operated by a crank, so that very powerful, though not very rapid, vibrations could be produced in different parts of the body. About two years ago the late Professor Charcot, acting on the suggestion of clinical observation that some cases of paralysis agitans were improved by the vibration of horse-cars, etc., devised an apparatus for treating that disease on that principle. Two of his pupils then constructed what is called the vibrating helmet, which was used in the Salpêtrière. I now show you a sample of this instrument which I have had for a short time. It has been used in this country also by Dr. William J. Morton, who has kindly written me a note giving his experiences with it. It is made by a Paris electrician, and is defective in that the motor is not strong enough. By using a stronger motor, with a good driving current, decided effects can be produced in migraine, headache, cerebral paræsthesia, and insomnia.

This method of therapeutics has been somewhat further amplified by attachment to a faradic battery called the singing battery, which has a very rapid vibration and powerful current passing through a long coil. It has been demonstrated, I believe, that the passage of this very rapidly vibrating current will produce anæsthesia of the part during its flow. While I think the methods so far devised for employing mechanical vibration are imperfect, yet I believe there is something in this form of therapeutics, and it deserves further trial. In the vibrator which I have the metallic head-piece, or cap, is set in rapid vibration by a motor with eccentrics. It has also attachments for application of the vibration to various neuralgic points. I have myself relieved very severe pain of tic douleureux with it. Better results will probably be obtained when an instrument shall be invented with more rapid and powerful vibrations.

Analgesia Produced by Chloride of Ethyl.—The President also presented a vial for spraying of chloride of ethyl on portions of the skin which it was desired to render analgesic. It was extremely convenient, and was useful for the relief of local neuralgic pains and in minor surgical operations. Chloride of methyl, which he had previously used, was an imported agent, much more expensive, and, while more powerful, was less convenient.

Bacteriological Examinations made in Diphtheria by the Health Department.—Dr. Hermann M. Biggs, in presenting this subject, said he had no formal paper to offer, but thinking it desirable that the profession should know exactly what the Health Department was doing in the line of bacteriological examination in diphtheria he would make some informal remarks. About a year and a half ago Dr. Park made a series of observations on patients at the Willard Parker Hospital who were suffering from diphtheria, with reference to the presence of the Loeffler bacillus. About one hundred and fifty cases were examined. It was shown that a considerable proportion of the patients entering that hospital with supposed diphtheria were in reality not suffering from diphtheria at all, but from pseudo-diphtheria accompanied with the production of a membrane. In the summer a large proportion of cases were true diphtheria, while in the winter and early spring, when various throat affections were prevalent, more than fifty per cent. were not diphtheria. The bacteriological examinations had tallied so closely with the clinical results, that Dr. Biggs's attention had been directed particularly to them. It was observed that in the cases in which the Loeffler bacillus was not found the mortality was almost *nil*, the few fatal cases being limited exclusively to young children who developed complicating broncho-pneumonia. On the other hand, in cases in which the Loeffler bacillus was found the mortality was very high, running from twenty-five up to forty, or even fifty per cent.

Early in the present year he had made a report to the Health Department, recommending the appointment of an inspector and bacteriological diagnostician in diphtheria. After some weeks Dr. Park was appointed to this position, and since May the Health Department has been prepared to make bacteriological examination in all cases of diphtheria which were presented. In the early weeks the work was confined almost solely to cases which were sent to the department by physicians, and cases in which there was some doubt as to the diagnosis which came under the direct observation of the Health Department. Later, as the work became more thoroughly systematized and knowledge of it became more widely diffused throughout the profession in the city, it was extended to making bacteriological examinations in all cases of suspected diphtheria occurring in tenement houses and boarding-houses, unless the physician in attendance objected.

In order to facilitate the work depots have been established at different points in the city where culture tubes could be obtained by physicians for making inoculations. After being inoculated these were returned to the depots and are collected by the department for examination. Printed directions were given along with the tubes. Circulars of information regarding the work had been delivered, by messengers, at the office of every physician in the city. There were two slips to be returned with the

tubes, one for primary cultures, the other for secondary cultures, which were made later in the cases, to insure freedom from contagion. On the first slip was the name of the maker of the culture, the day, the time of day, the name, age, and address of the patient, the name and address of the attending physician, the duration of the disease, how contracted, location of the membrane, was the inoculation satisfactory, the clinical diagnosis. The second slip contained the number of the culture, the date, name of patient, address, name of inspector, laboratory number, and at the bottom of the slip was the question, "Is the place ready for disinfection if the culture is found free from bacilli?" "Designate the number and location of the rooms to be disinfected." One of these slips was put in with each box containing the necessary tubes, etc., together with instruction how to make the culture.

"HEALTH DEPARTMENT, NEW YORK, July, 1893.

"CIRCULAR OF INFORMATION CONCERNING THE USE OF BACTERIAL CULTURES FOR THE DIAGNOSIS OF DIPHTHERIA.

"Recent bacterial investigations have shown that a considerable proportion of the cases of pseudo membranous and exudative inflammations of the throat and upper air-passages, commonly considered as diphtheria, and having the anatomical appearance found in diphtheria, are not true diphtheria. These cases may be called pseudo- or false diphtheria.

"It has also been shown that a considerable number of cases, which are apparently false diphtheria, prove, on bacterial examination, to be true diphtheria. While in true diphtheria the mortality is very high, and the danger of transmission to others is great, in false diphtheria the mortality is low and the danger of infection slight. The differential diagnosis between true and false diphtheria can be made by bacteriological examination within twelve hours, while without this the differentiation is difficult or impossible.

"The Health Department is now prepared to make use of bacterial cultures for diagnosis in all cases of suspected diphtheria occurring in the city, and desires that in every case either the physicians should themselves make the inoculations, or should authorize an inspector to make them. They should be made in every suspicious case at the earliest possible moment, for during convalescence the specific organisms often disappear from the throat and the full benefit of a positive diagnosis is not obtained unless it is made early in the disease.

"The inoculations are made by gently rubbing a cotton swab against the throat, and then drawing it over the surface of the culture-medium. When the physician himself desires to make the culture (and this is usually the better plan, for it can be done earlier and is more agreeable to the family), he can obtain, free of cost, a culture-tube and swab, and the simple directions necessary for their use, from druggists designated by the Board. After the inoculation the tubes are to be returned at once to the druggist from whom they were obtained. The tubes will be collected by the department every evening.

"In cases where an inoculation has not been made by the attending physician, the medical inspector will make one, unless for any reason the physician requests that none be made when he notifies the department of the case.

"The diagnosis will be ready by noon of the following day. The attending physician can obtain this immediately, by telephoning to the laboratory, or when this is not done, he will be notified by mail. Cases which prove to be false diphtheria will not be visited by the Health Department inspectors. Cases, on the other hand, which prove to be true diphtheria, will be subjected to the usual rules and regulations covering contagious diseases.

"All communications on this subject should be addressed to Dr. Herman M. Biggs, Chief Inspector Pathology, Bacteriology, and Disinfection, No. 42 Bleecker Street (Telephone '1191 Spring').

"By order of the Board of Health,

"CHARLES G. WILSON, *President.*

"EMMONS CLARK, *Secretary.*"

After the culture was made the box and tubes were returned to the depot, and late in the afternoon of each day they were collected from the various depots, where they had been kept in culture ovens until taken to the central depot. At the laboratory they remained in the brood oven until the next morning, when the examination was made and the reports were sent back to the physicians who had charge of the cases, and also to the inspector of the district. Dr. Biggs said that some idea of the extent of this work could be obtained from the fact that, two days before, forty-nine tubes had been returned for examination, twenty-nine of which were primary, and twenty secondary cultures. It had been found, especially in the tenement districts, that in a great many cases after the membrane had entirely disappeared from the throat, and the children were apparently well and playing in the streets, the throat still contained the Loeffler bacillus. Pure, or almost pure cultures had been obtained even as long as ten days or two weeks after the membrane in the throat had entirely disappeared. In one case the child had no membrane of the throat, but had a nasal discharge in which was found the Loeffler bacillus five weeks after apparent restoration to health. In the Willard Parker Hospital, where frequent applications of bichloride of mercury were employed—one to four or five thousand—it had been found that culture of the Loeffler bacillus could not be obtained after forty-eight hours.

Being guided by the results of these examinations it had been decided not to allow cases occurring in tenement-houses to be discharged or returned to school until secondary examination showed the absence of the Loeffler bacillus. At the end of eight days, or earlier, if the membrane had disappeared, a second culture was made by the inspector of the district, and then if the Loeffler bacillus was found to be absent, the case was referred for disinfection of the apartments, etc. If the Loeffler bacillus was found to be present, the case was kept under observation three or four days longer, when the culture experiments were repeated.

The Health Board was determined to make very strong efforts to limit the prevalence of diphtheria in the city, and it had been determined to remove a much larger proportion of them than formerly to the hospitals, especially from localities where the apartments were small, the number of children in the house large, where the parents were ignorant or negligent, and where it was impossible to do anything in the way of isolation. Patients would be removed forcibly if necessary. The hospital facilities of the department had increased so much this year that a much greater number of patients could be received and cared for. There would be accommodation for about one hundred cases of diphtheria in the Willard Parker Hospital. At present the diphtheria cases in tenement-houses were to be visited at least every other day by inspectors, and as complete isolation was to be obtained as possible in cases which were not removed to hospitals. At the end of the disease, as perfect disinfection was to be practised as the circumstances would allow. The disinfection was to be applied to the whole flat, or whole apartment, if there was any reason at all to suppose that the whole of it had been infected. Carpets were taken up and sent, with bedding and other articles, to the station at East Sixteenth Street, to be disinfected by steam. The floors were washed with bichloride solution, sulphur was burned in the apartments, three pounds to the thousand cubic feet of air. While it must be admitted that the disinfection was not ideal, yet it was the best that could be applied at present, and it was believed would effect considerable good. It had been shown that the

Loeffler bacillus was moderately susceptible to sulphur fumigation, that a great many of them were killed, and probably others were attenuated to such a degree that they were practically innoxious. At least experience had shown that where this form of disinfection was carried out thoroughly no secondary cases had developed.

Dr. Biggs then showed maps of the city, divided into sections, on which were platted the localities where cases of diphtheria occurred. The color of these marks was varied according to the date of development of the cases in a given neighborhood, showing whether they were primary or secondary, and indicating the probable source of the infection. One glance at the map told one of the distribution of diphtheria in the city at any given period. Some very instructive facts had become evident from these charts. For instance, it was found that in August four cases of diphtheria had occurred in a house on East Seventy-third Street; the second week there were two cases; third week one case; first week of September one case; second week two cases; third week one case. Thus there had been twelve cases of diphtheria within a radius of one hundred feet. By looking over the map it would be seen that there were just such little points of infection centred here and there over the city. The probabilities were that there would be one or two cases of infection from the original one before the report reached the department, and one or two cases might develop subsequent to that report. Afterward, however, it was expected that by the efforts which the department was putting forth, the development of further cases would be prevented. The fact that the map showed that the disease spread from house to house, and from block to block was evidence of infection from the first case occurring in the neighborhood.

Dr. Biggs said that the Commissioners of Health had shown a perfect willingness to do everything which could reasonably be asked to prevent the spread and effect the eradication of contagious diseases in the city.

Dr. Abbe asked Dr. Biggs whether the cases of sore throat following scarlet fever showed the Loeffler bacillus; also, whether it was true, as had been stated very positively in some of the papers, that diphtheria was very prevalent where heaps of manure were allowed to remain at stables for some time.

Dr. Biggs replied that the streptococcus, not the Loeffler bacillus, was usually found in sore throat after scarlet fever. He had no data for answering the second question.

Dr. Partridge inquired whether the presence of the Lœffler bacillus in a case of sore throat would be sufficient reason for placing the patient in a ward among others with diphtheria.

Dr. Biggs thought there could be no doubt of it.

Dr. Partridge said that last summer a case was diagnosed as one of diphtheria on the basis of the bacteriological examination made by a competent man, yet in twenty-four hours all illness had disappeared.

Dr. Biggs said they had found the bacteriological examination and the clinical history tally in nearly every instance. Also, where the Loeffler bacillus was found there were apt to be other cases; where it was not found the disease was likely to be limited to the single case. In one of the worst appearing cases of sore throat which he had ever seen diphtheria was excluded by the absence of the Loeffler bacillus, and the patient got well.

Dr. George L. Peabody said he was acquainted with Dr. Park's work, and was gratified to know that the clinical results corresponded with the bacteriological examination. Such exact methods in diagnosis were extremely desirable. He regarded the plan which had been described by Dr. Biggs as a long step in advance.

Dr. Draper inquired how the public had received the question of isolation in diphtheria.

Dr. Biggs replied that the department had met with little trouble, but when opposition was offered it usually ceased when one of the sanitary police accompanied the ambulance. If, however, it was intended to remove the patient to North Brother Island, instead of the Willard Parker Hospital, far greater objection was usually made.

Dr. W. G. Thompson confirmed what Dr. Peabody had said regarding the correspondence between the clinical history and bacteriological examination, as it had been made by Dr. Park. He thought the scheme one of the most valuable which the Board of Health had ever adopted.

Dr. Brannan remarked that the value of a bacteriological examination in diagnosis in sore throat had been tested in the illness of his boy, who was supposed to have diphtheria until the absence of the Loeffler bacillus was proven and a favorable prognosis was made and had proven correct. He thought public opinion would sustain the Health Department because of the value of their work.

Dr. Andrew H. Smith inquired whether the recent work of the Health Department had shown any connection between diphtheria and the house sewage.

Dr. Biggs replied that where diphtheria had spread it had been traced to previous cases, sewage seemingly having had nothing to do with it.

The President inquired whether there had been a relation between dirt and diphtheria.

Dr. Biggs could only say that most of the cases of diphtheria had been in the tenement districts, four families on a floor, many of them Italians, Bohemians, and Poles.

Dr. A. H. Smith wished to know whether there had been any relation between the cases of pseudo-diphtheria and defective sanitary arrangements. Dr. Biggs being unable to answer the question, Dr. Smith went on to say that he had seen some cases of follicular tonsillitis which had seemed to depend upon bad sanitation. A striking instance occurred in an isolated country residence, where eleven cases of sore throat developed, the apparent cause seeming to be the direct connection of a bath-tub, not in use, with the pipes leading to the cesspool. In another similar instance, five cases of sore throat developed in rapid succession until the waste-pipe was repaired. Some years ago a number of cases of follicular tonsillitis occurred at St. Luke's Hospital and a sewer-pipe was found to have fallen in.

Dr. Abbe remembered the latter instance, but said it appeared to him easier to explain such endemics on the basis of immediate contagion than on that of sewage infection, for the defective sewage had existed weeks or months before the endemic of tonsillitis occurred.

Dr. Smith had understood Dr. Biggs to say that pseudo-diphtheria was not contagious.

Dr. Abbe thought follicular tonsillitis often affected whole families.

Dr. Biggs said it was not that kind of sore throat which had usually been reported to the Health Department as diphtheria when only pseudo-diphtheria existed.

Dr. Abbe regarded the question whether groups of cases of tonsillitis were due to infection or to defective sanitary conditions as a very important one, as upon its answer by the physician rested the action of the family in remaining in or removing from the house.

Dr. W. G. Thompson said there were many men working in sewers and they did not seem especially disposed to have sore throat. Their work was not interrupted by frequent attacks of diphtheria or throat affections.

The President had read that workers in the Paris sewers were not so affected, and when Dr. Peabody said that little fecal matter entered the Paris sewers, the President thought this fact should be placed on record, since the statement that workers in sewers were not especially troubled by throat affections had often been based upon assertions relating to the Paris sewers. He also thought the statistics of diphtheria would have to be rewritten, since a distinction had been made, based on bacteriological examinations, between true diphtheria and pseudo-diphtheria.

Rupture of Aneurism of Superior Pancreatic-duodenal Artery, with Symptoms of Biliary Obstruction.—Dr. Biggs then presented a very rare specimen. The patient had been admitted to Bellevue Hospital four days before,

with the history of having had jaundice about four weeks, and the day before admission having vomited, the vomit containing a considerable quantity of blood. He walked into the hospital, and soon afterward vomited somewhat altered blood. The movements from the bowels were diarrhœal, and were also composed almost entirely of blood. The morning of his death he vomited blood several times, became collapsed, and was transfused. He also had several diarrhœal movements composed of blood. At the autopsy the stomach was found to contain considerable blood, while the intestinal tract was almost completely filled with blood. The common gall-duct, cystic duct, gall-bladder, and gall-ducts far back into the liver were distended with blood. At the lower part of the common duct he found an ulceration which opened into an aneurism situated between the duodenum and head of the pancreas, involving the pancreatic duodenal artery. It had first pressed upon the common duct, causing obstruction, and later dilatation of the duct and jaundice; finally it had ruptured into the common duct and caused the hemorrhages from the stomach and bowels.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 14, 1893.

REGINALD H. SAYRE, M.D., VICE-PRESIDENT, IN THE CHAIR.

Extensive Pericarditis and Valvular Lesions.—DR. GEORGE P. BIGGS presented a heart showing the results of very extensive pericarditis and valvular lesions. It had been removed from a woman, thirty-five years of age, who gave a history of attacks of rheumatism for a period of ten years. She was first admitted to the New York Hospital in February, 1893, on account of general anasarca, but after treatment there for one month, she left the hospital very much improved. She was re-admitted on May 9th of the present year, complaining of much the same symptoms—general anasarca and dyspnœa. Examination then revealed a moderate increase in the area of cardiac dulness; the apex-beat was in the fifth intercostal space, four and a half inches from the median line, and along the left of the sternum and at the base two murmurs could be heard, one systolic, and the other diastolic. At the apex, there was a low, "rumbling" murmur accompanying the systole. There was also very marked pulsation of the veins of the neck, synchronous with the systole. The heart action grew steadily weaker, the anasarca increased, and on June 9th she died. At the autopsy, in addition to the chronic congestion of all the organs, there were extensive adhesions of the pericardium, in some places fully one centimetre thick. At the apex, was an area, eleven and a half centimetres in diameter, where the heart and pericardial sac were firmly united to the chest-wall by unusually firm adhesions. The heart was considerably enlarged, all its cavities being more dilated than hypertrophied. The muscular tissue was quite fatty. The adhesions of the edges of the tricuspid valve produced such a narrowing of the orifice that two fingers could not be passed into the opening, and the retraction which had occurred also caused regurgitation. The pulmonary valve was normal. The cusps of the aortic valve showed enormous thickening and rigidity, the cusps being fixed in a semi-closed position, thus producing marked obstruction and regurgitation. The most interesting lesion was at the mitral valve, where the orifice appeared as a semilunar slit with its convexity looking toward the left border of the heart, and the opening so small as not to readily admit the tip of the little finger. This stenosis had resulted from very pronounced thickening and retraction of the posterior or outer cusp, and thickening and apparent enlargement of the anterior or inner cusp, the latter falling over so as to completely close the orifice. It was very greatly thickened, and on its under surface was a distinct cavity produced by the blood-current as it was orced against this surface during the systole of the heart.

The speaker said that he had shown an almost exactly similar lesion of the tricuspid valve during the past winter. As the first attack of rheumatism occurred ten years ago, it is probable that the lesion of the tricuspid originated at this time.

A Cyst of the Mesentery.—Dr. Biggs then exhibited a cyst of the mesentery which had been accidentally discovered while examining the organs of a still-born child for another purpose. The cyst was situated to the right of the median line, between the folds of the mesentery, in the lower portion of the jejunum; it was oval in shape, measured four and a half and three and a half centimetres in its principal diameters, and contained colorless serum. Its walls were formed by the two layers of the mesentery. The vessels passing over it were very much distended with blood, and there were a few enlarged glands in the mesentery at its junction with the under surface of the cyst. He had never seen such a cyst, and was unable to offer any explanation for its occurrence.

A White Gall-stone.—Dr. Biggs also exhibited a very rare variety of gall-stone. It was whitish, perfectly translucent, weighed three grammes, and measured 22+18— sixteen centimetres; was ovoid in shape, and presented quite a smooth surface. It felt oily to the touch, and was composed entirely of cholesterine. It was removed from a woman, sixty years of age, and was the only stone found in the gall-bladder, which was firmly contracted about it.

Stated Meeting, September 27, 1893.

REGINALD H. SAYRE, M.D., VICE-PRESIDENT, IN THE CHAIR.

Carcinoma of the Stomach.—DR. J. H. HUDDLESTON presented a tumor of the pylorus which had been removed from a man, forty-nine years of age, a laborer, of intemperate habits. He had had good health up to early in 1890, when he began to suffer from pain in the stomach and from nausea. Two or three months later, a swelling was noticed in the epigastrium, and there was also slight emaciation, which was attributed to dyspepsia. When first seen, in the workhouse, on August 24, 1893, he was greatly emaciated and quite feeble. A tumor could be distinctly felt in the epigastrium to the left side of the median line. Inflation of the stomach with gas showed the organ to occupy apparently its normal limits. Two quarts of water were poured in without causing any distress. The first washing brought away curdled milk, which had been taken five hours, along with some dark mucus. He said he had vomited three or four times a day for several months, but never anything but food and water. There was no vomiting of "coffee-grounds" while he was in the hospital. His weight on admission was ninety-five pounds, but he emaciated rapidly, and died on September 6th. Toward the last he had very little sleep, but complained of scarcely any pain—only of weakness. The contents of the stomach were tested by the phlorglucin-vanilin test for free hydrochloric acid and a distinct reaction obtained. For five or six days before his death he had a low fever—100° to 101° F.

At the autopsy the lower lobe of the left lung was found in the stage of gray hepatization. In the pyloric region of the stomach was a tumor, three inches in diameter, which extended into the pancreas.

The points of interest in this case are: 1, Its long duration, three and one half years instead of eighteen months to two years, as is the rule: 2, the presence of free hydrochloric acid even to the last. The tumor appears to be an ordinary carcinoma.

Discussion.—DR. S. T. ARMSTRONG said he did not think the statements formerly made regarding this test for hydrochloric acid in the stomach and its significance were now accepted as correct. He had himself obtained this reaction for free hydrochloric acid in several cases where the existence of gastric cancer was indisputable.

A Myxoma of the Nose.—DR. ROBERT C. MYLES presented what he considered to be a myxoma of the nose.

He had removed it from a man, twenty-three years of age. It measured two and one-half inches in diameter when fresh, and was situated in the left nostril. It nearly occluded the posterior nares. Its external appearance strongly resembled that of a fibroma. The tumor, which had a pedicle about one and one-half inch long, was removed by snaring it off at its base.

Exostosis and Necrosis of the Vomer.—Dr. Myles also presented a sequestrum removed from the nose of a patient who gave no syphilitic history. He had occasionally had a bad odor from his nose during the past two years, and this seemed to the speaker so characteristic of dead bone that he made a long and determined search for it. He was finally rewarded by finding this sequestrum in the septum, just above the palate bone, and partially hidden by the mucous membrane. As it did not have the natural shape of the septum, it must have been an exostosis. It was very hard, and showed no tendency to disintegration or spontaneous discharge. In order to remove it from the anterior nares it was necessary to cut it with forceps. The specimen could not be anything but the rostrum or the vomer.

It is difficult to find dead bone in the nose, even with a probe; the most delicate test in his opinion is a cotton-wrapped probe, as the rough edge of the bone catches in the cotton when a probe would slip past the bone and leave it undetected.

Ulceration and Perforation of the Ilium.—Dr. S. T. Armstrong exhibited a specimen of this condition which had been removed from a woman, forty years of age, who was first admitted to his service at the Harlem Hospital on August 26, 1893. Her family and personal history were negative. Three days before admission she was taken with nausea and vomiting, followed by diarrhœa. She could assign no cause for her trouble except kicks which she had received on the abdomen from a drunken husband. On admission she vomited all ingesta; the bowels moved sometimes as often as ten times in the twenty-four hours, and the evacuations were watery and contained matter resembling curdled milk. There was abdominal pain, but no tympanites. Her body was covered with cold sweat. With a milk and lime-water diet, and sulpho-carbolate of zinc internally, she improved immediately, and was discharged "cured" in two days. On September 10th she had a slight chill, followed by fever, vomiting, and persistent diarrhœa, although there had been no dietetic indiscretion, and she knew of no cause for the relapse. Her temperature oscillated between 101° and 103° F. until the 19th, when it fell to normal. During the next two days there was only one movement of the bowels, yet she failed perceptibly, and on the evening of the 21st she died suddenly.

The necropsy showed calcareous nodules in the pulmonary apices. The heart was normal. The peritoneal cavity was filled with sero-purulent matter and liquid fæces, and there was a small, circular, punched-out ulceration in the upper portion of the ilium. There was but little congestion of the intestinal blood-vessels, a few circumscribed patches being noted here and there. There was no other ulceration, nor was there any evidence of a foreign substance in the rest of the intestine that might have caused the perforation. This perforation was probably due to necrosis, the result of vascular stasis.

The Society then adjourned.

Abscess of the Prostate should be incised as early as possible, even after spontaneous opening into the urethra, when such opening is not followed by complete disappearance of all morbid symptoms. When perineal abscess has resulted, simply opening it is not enough; the prostatic cavity must be freely opened and drained. Incision by the rectum is insufficient. Stripping up the rectum according to Dittel's method is the procedure of choice in incision of abscess of the prostate.—Zuckerkandl.

Therapeutic Hints.

Typhoid.—The simplest and most efficacious treatment consists in the administration of calomel in fractional doses. Three-fourths of a grain of calomel is given every hour for ten doses, if necessary, or till copious, soft greenish stools have been secured, a gargle of chlorate of potash being meanwhile used to prevent stomatitis.—Smakovsky.

Stomach Diseases.—I have used in gastrorrhagia from ulcer and other causes, with apparent benefit, the following:

℞. Magnesii sulphatis ..... ʒ ijss.
Magnesii carbonatis..... ʒ jss.
Pulveris acaciæ..... ʒ ij.
Aquæ ..... ad ℥ ij.

M. Sig. :—ʒ j. every fifteen minutes until vomiting ceases.

Over all dyspeptics it is necessary to establish a dominating influence. We must command their confidence before much good can be done. The mental state must be improved by occupation which may prevent needless apprehensions concerning health and life. A change of scene is usually beneficial.

—Billings.

Croup.—In desperate cases give as inhalation, every fifteen to twenty minutes:

℞. Ether..... gram. 4
Ether acetic..... " 2
Menthol..... centig. 0.60

—Betz.

Heart Disease.—Atropine is indicated in irritation of the pneumogastric, slow pulse, dizziness, convulsions, syncope. Hypodermic injection one-half to two milligrammes.—Cardarelli.

Ascites from Cirrhosis.—

℞. Resinæ copaibæ ..... ʒ iij.
Spiritus rectificati..... ʒ j.
Mucilaginis acaciæ ..... ℥ ij.
Aquæ..... ad ℥ xij.

M. Misce et fiat mistura.

A tablespoonful to be taken three times a day.

—*The Practitioner.*

Singultus, when persistent and other remedies having failed, wash out the stomach.—Gallaut.

Hay Fever.—The ears are usually pale. Rub them until red and hot.—Ferber.

Consumption.—Creosote has no action on tubercle bacillus, while destroying lower organisms. Its virtue in phthisis is chiefly upon nutrition.—Whitaker.

Tapeworm.—Chloroform greatly increases the efficacy of male fern. Fifty drops may be given.—Duhomeau.

Damiana is effective in the habitual constipation of neurotic subjects, being analogous to strychnia. It acts as a sedative in abnormal sexual appetite, rather than as a stimulant.—*Cleveland Medical Journal.*

Diphtheria.—During the last two or three years I have uniformly prescribed, for spraying the fauces hourly or every two hours, the following:

℞. Squibb's peroxide of hydrogen..... ʒ ij.
Sodii bicarbon..... grains x.
Aquæ destil..... ʒ ij.

One teaspoonful of each to be mixed in the bottle of the hand atomizer, immediately before its use. The nostrils may be sprayed with the same, with the addition perhaps of two teaspoonfuls of water.

—Smith.

Methyl Chloride as a spray upon the surface, cured ten and improved three out of fifteen cases of sciatica.—Hertmann.

Hyoscyamine will be found useful in chorea which has resisted other remedies.—Da Costa.

Chlorosis.—Neutral acetate of copper, one centigram dose.—Liégeois.

Creosotal.—The more creosote one can tolerate, the better its effect. Since creosote can be borne better in no other form than that of creosote carbonate, this is the ideal preparation for phthisical patients.—Sommerbrodt.

Sciatica.—Rest in bed, flannel bandage, splint from axilla to ankle, and at end of treatment careful massage.—Weir Mitchell.

Dysmenorrhœa.—

℞. Liquoris ammonii acetatis fort.... ♏ xl. ad ʒ j.
Tincturæ belladonnæ ..... ♏ x.
Tincturæ cardamomi compositæ... ♏ xxx.
Phenazoni..... gr. x.
Aquæ chloroformi .....ad ʒ j.
Misce et fiat mistura. To be taken every four hours.

Indian Hemp acts almost like a specific in the insanity of women. It is also of value in mania, melancholia, gastric ulcer, and gastrodynia.—Suckling.

Salicylate of Lithia is more efficacious than salicylate of soda in acute and progressive subacute articular rheumatism.—Vulpian.

Appendicitis.—If the patient improves, wait. If the pulse grows worse, if the temperature rises, if pain increases, if tumefaction becomes larger, if tenderness becomes more marked, operate. At no time give morphine, but consider an increase of pain sufficient to demand relief by opium an imperative, unequivocal, and emphatic indication for surgical interference.—Link.

Painful Dentition.—

℞. Muriate of cocaine ..... gr. jss.
Tincture of conium,
Syrup.....āā ʒ ij.
Rub on the gums several times daily.

Rheumatic Iritis.—

℞. Tinct. colchici..... gram. 10
Syr. simp..... " 30
Alc. at 45°..... " 5
Aq. dest. ..... " 120
One or two soupspoonfuls each night.

—Dehenne.

Erysipelas of the Bladder.—Several days after bladder symptoms erysipelas appeared upon the surface. Cystoscopy showed intense redness, cyanotic areas, and raised folds. Streptococci found in urine, cultivated and injected in lower animals, caused manifestations of erysipelas. Injected into the bladder, it produced purulent cystitis.—Fritsch.

Favus.—Remove crusts with poultice and green soap, and apply fifteen grains of bichromate of potassium in an ounce of lard, after hair is cut short.—*Journal de Médecine.*

Enlarged Prostate.—Give five to ten grain doses of muriate of ammonia three times a day.

℞. Ammonii chloridi..... ʒ ss.
Syrup aurantii cort..... ʒ iv.
M. Sig.: A teaspoonful in half a glass of water, t.i.d.

You will be surprised at the results obtained if you will continue the treatment as long as three months.—Terry.

Chronic Urethritis with bluish epithelial plaques in the canal. Decoction of whortleberry (1 to 3) as an injection.—Grünfeld.

Anthrax.—Apply ammonia externally, give some salt of ammonia internally, and, if general infection threatens, make intravenous injections.—Avendano.

Epididymitis treated without restriction of exercise. A flannel bandage, three metres long and three centimetres wide, is used, the first turn being applied above the testicle. This end of the bandage the patient holds until the following circular turns are firm enough to hold it and prevent the testicle from slipping up toward the inguinal canal. The dressing is then completed by alternate circular and spiral turns of the bandage, and the two ends fastened together with a safety-pin, and the whole surrounded with a suspensory bandage. This dressing may be reapplied daily.—Philippson.

Tumors in the Bladder are now known to be of more frequent occurrence than was formerly supposed. 1. The history of hæmaturia and its character may be strongly indicative of the presence of a tumor. 2. Positive evidence of the presence of tumor by the detection of portions of tumor or characteristic cells is seldom got from the urine. 3. Cystoscopic examination, although not always possible, in the majority of instances enables us to detect the tumor when present. 4. With the cystoscope we are enabled to tell the site, size, and superficial attachment of the tumor, and approximately its character. 5. No evil results attend the use of the cystoscope. 6. Tumors in many cases can be thoroughly removed from the bladder. 7. Suprapubic cystotomy gives the best access to the bladder. 8. The proportion of malignant tumors as compared with innocent is very high. 9. Sufficiently good results follow the removal of malignant tumors to justify operation.—Wallace.

Tricophytosis.—

℞. Powdered rhubarb ..... gram. 1
Vaseline..... " 10
Apply every second day.

—Bertrand.

Hemorrhage after Suprapubic Prostatectomy when other Means have Failed.—Plug with an antiseptic graduated tampon the prostate and prostatic urethra, by traction either through the urethra or through a perineal incision; the tampon is provided with a central silk thread for traction, and with four threads at the corners for its removal when desired.—Keyes.

Pustular Eczema of the subacute variety is well treated by means of frequently repeated wet packs of a weak creolin solution (ʒ j. to ʒ viij. water).—Patteson.

Systemic Urinary Infection may be either ascending or descending, and is micro-organic; in the ascending, the infection is by continuity of structures, the ureters and pelvis of the kidney being involved, while abscesses are found in the pyramidal substance; in the descending, the infection is embolic, and due to the presence of the pyogenic urinary microbes in the blood, the only lesions being the multiple miliary abscesses in the cortical substance, due to emboli, the pyramids and pelvis of the kidney as well as the ureters remaining intact.—Halle.

Acne.—

℞. Washed precipitated sulphur,
Pure glycerin,
Carbonate of potassium,
Hydrolate of cherry-bark,
Alcohol.....āā gram. 10.00

—Kaposi.

A Nervous Bladder is one of the earliest symptoms of a nervous brain; for nervousness means a deficient control of the higher nerve-centres over the lower ones; the vesical irritability indicates a lack of brain-control.—Goodell.

Cold full baths are recommended by Mollière in the treatment of severe hepatic colic, the temperature of the bath ranging from 71° to 82° F.

Uric-acid Gravel.—As regards diet, some recommend that the subjects of uric-acid gravel should avoid sugar, fat, and fruit. The most reliable investigations indicate that fat, sugar, and starchy matters have not the slightest direct influence on the production and excretion of uric acid. The only point which is really clear is that the excretion of uric acid is diminished by lessening the albuminoid ingredients of the food, and that it is heightened by increasing these ingredients.—Roberts.

Traumatism of Urethra.—The day will undoubtedly come when every rupture of the urethra will be treated—not by the sound *à demeure* and expectantly, but at

once—by perineal incision and immediate suture. This should always be done when possible. In the perineal urethra this is the operation of choice.—Legueu and Cestau.

Tenesmus and frequent micturition which may be excited by lesions of the ureters, and such tenesmus may, for a certain time, be the most salient symptom of a renal calculus.—Kelly.

Ozæna.—After irrigation with carbolized water, insufflate with

Salol	gram. 5
Acid boric	" 3
Acid salicylic	centig. 0.50
Acid thymic	" 0.20
Talcum powder	gram. 8

Castration for hypertrophied prostate, on the theory that bilateral castration causes atrophy of the prostate, experimentally proven on dogs, has been successfully applied to two old men.—Rocum (*Centralb. f. Chir.*, No. 35, 1893).

Catarrhal Urethritis in small boys was found in sixteen instances out of sixteen cases examined to be of gonorrhœal origin. Direct or indirect infection was made out in several of the cases. In an infant of fifteen months a classical gonorrhœal epididymitis followed.—Rona.

Calcareous Pyelitis.—1. In a calculous patient, or in a patient with a distinct attack of renal colic, suppression of urine should be regarded as directly due to the stone, and in the majority of cases both kidneys will be found to be disabled, for the cessation of the functions of a healthy kidney due to irritation of a stone in the opposite ureter must be very rare. 2. These cases should be treated by operation as soon as it has been found that the function of the kidney has come to a standstill, as there is little chance of a stone being pushed along the ureter when the kidney is no longer excreting urine behind it. 3. In the absence of any evidence as to the location of the calculus, the first step in such an operation should be a median laparotomy, with the hope of discovering the whereabouts of the stone in order to proceed intelligently for its removal. 4. If, by this examination, no calculus can be found, so that further operative procedure cannot be decided upon, massage of the pelves of the kidneys and of the ureters from above downwards should be practised in the hope of dislodging or breaking up a small calculus, if such exists.—Cabot.

Tuberculosis of Prostate.—One-third of the cases develop insidiously. The bladder, seminal vesicles, and testicles are usually involved. Treatment, intra-vesical injection of iodoform, perineal incision of abscesses.—Marmedel.

Tuberculous Testicle.—Castration is a bad operation, as it does not prevent relapse. In eighty cases out of one hundred, where castration is practised, the prostate and the seminal vesicles are already the seat of tubercle.—Verneuil.

The Nephritis and Albumin in the urine after vaginal hysterectomy is due to the wounding of the hypozotic plexus and ovarian plexus, and the irritation is reflected into the renal plexus, disturbing the kidney. The shock from abdominal and vaginal section is due to the damage inflicted on the sympathetic plexus, and is often manifest in kidney disturbance.—Robinson.

Tertiary Syphilitic Manifestations may be due to direct inoculation without the necessity of a primary or secondary stage.—Klotz.

Bulbo-urethral Adenitis—phlegmasia of a bulbo-urethral gland—is ordinarily the outcome of urethritis, but may also arise in consequence of a blow upon the perineum, or of an injury of the gland's duct by the accidental penetration of a capillary bougie. The left seems to be more commonly attacked than the right, and very exceptionally are both glands affected.—Gouley.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

SIR ANDREW CLARK.

London, November 7, 1893.

Sir Andrew Clark died yesterday afternoon, to the profound regret of innumerable friends. He had begun his sixty-eighth year, his sixty-seventh birthday having been on October 28th. He was seized, as already reported, with paralysis and aphasia on October 19th, during his morning work. The case excited the gravest apprehensions, as he was for some time unconscious and Cheyne-Stokes respiration was noticed. This, however, passed away and he partially recovered his power of speech. It was then hoped that he might recover, at any rate for a time, and on Thursday and Friday morning inquirers were told that his medical friends considered he was in no immediate danger. But on the same Friday he became worse and gradually sank. Yesterday morning, although conscious, he was evidently sinking fast. Soon after noon it was obvious he would not last the day, and about four o'clock his family were assembled. He was then unconscious, and he passed peacefully away about half-past four.

Sir Andrew will be greatly missed; he had become a prominent figure to the public, and had filled with honor the highest posts in his profession. As president of the Royal College of Physicians, he was a great success. He had presided also over several of the medical societies, and in all offices had given the greatest satisfaction. His urbanity, his readiness of speech, his knowledge of men, and his large stores of professional and general information well qualified him for the position he held in our esteem and well earned our admiration. He has had an eminently successful career, but has not been spoiled by his success, which has enabled him to gratify his natural generosity. Kind, courteous, sympathetic, full of goodwill to his brethren, he has always been accessible to them and happy in placing his skill at their service when they were themselves ill. There is sorrow to-day in many such households at the loss of a valued friend and counsellor.

Sir Andrew Clark was a true, sturdy, and canny Scot, born in Aberdeen and a graduate of Marischall College. In student days he had symptoms of tuberculosis, and on qualifying he entered the naval medical service. In this service he became pathologist to Haslar Hospital. He resigned the service in 1854 to take the pathological post at the London Hospital, then a very minor position with a moderate honorarium; but this became his stepping-stone to the staff. He was elected assistant physician at the first vacancy, and thenceforward passed regularly on as successive vacancies occurred, and after his full term of active work was made consulting physician. The great work of his life was done in the wards of the London Hospital, and he was always ready to say that he owed everything to that great institution. In his earlier years there he was again attacked with symptoms of consumption, but they subsided and he continued his career with unabated energy. Of late years he would recommend men who could manage to keep at work to do so, and sometimes tell them as an encouragement how nearly he had at one time been obliged to give up, and instance his case as a proof that incessant activity is not detrimental. Possibly, of late years he may have done more than was desirable, for he was about the busiest physician in London, and some are suggesting that his case is a lesson on overwork. I doubt that, however, so far as practice is concerned. But official and social claims were probably detrimental. He felt that himself, and when, more than a year ago, after a sharp illness, I suggested that he should withdraw from some of these, he told me he knew that the dinners he was obliged to attend were most injurious. Still, his sense of the obliga-

tion to discharge the smallest duty or to act on the custom of an official position was so strong, that he would omit nothing that could be considered proper or usual. He was also, as to official punctuality, most exact, although the exigencies of such a large practice often compelled him to be late at consultations. In illustration of this, he was present at a lecture at the College of Physicians the day before his illness began, and on that occasion he was late in arriving for the first time in the six years in which he has been president.

Sir Andrew Clark did not contribute much to the literature of his profession. In early days he wrote the chapter on the Anatomy of the Lungs for Dr. Herbert Davies's work on the "Heart and Lungs." He contributed to the first volume of the Clinical Society's "Transactions" a paper on "Fibroid Phthisis," and other papers to various periodicals. Reports of some of his lectures have also been printed. But it was as a speaker and a clinical observer that he shone. He was rather a great talker than a writer, for years so busy that he could not supervise the publication of his lectures. Otherwise some of them would have perpetuated his striking ability.

The baronetcy was conferred in 1883 on the recommendation of Mr. Gladstone, who had, as is well known, for many years been a patient of the deceased. Sir Andrew was twice married, and leaves a son and two daughters with the widow to lament his loss. The baronetcy passes to the son, a member of our profession, James Richardson Andrew Clark, Surgeon-Major Army Medical Staff, F.R.C.S., Edin., now in his forty-second year.

New Instruments.

A COMBINED LACHRYMAL GOUGE.[1]

By H. DAVISON SCHWARZSCHILD, M.D.,

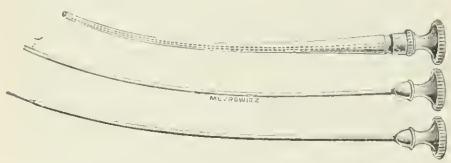
ASSISTANT SURGEON MANHATTAN EYE AND EAR HOSPITAL, ETC., NEW YORK.

This new instrument, a description of which follows, is applicable to those diseases of the lachrymal apparatus that have not proved amenable to the use of sounds or similar forms of treatment.

It is not an uncommon occurrence to encounter a stricture of the nasal duct which does not permit the most slender probe to pass, and is not incisable with any of the canaliculus knives. Such a state of affairs indicates the presence of an exostosis more or less diffuse. At other times a shelf like osseous projection may be located, which impedes the escape of tears and partially obstructs the canal.

These abnormalities require the use of a gouge for their removal.

Purulent and muco-purulent discharges are frequently occasioned by a partial necrosis of the walls of the nasal duct, and are most successfully treated by chiselling away the necrotic foci, and applying antiseptic applications with a porte caustique.



The apparatus consists of four separate parts: Cannula, director, gouge, and porte-caustique.

The first is made of German silver, and through it the others may be passed. When the director is inserted it corresponds to a Bowman sound No. 10.

The gouge is constructed of steel, the shank strong, although flexible, and cutting edge highly tempered; the latter grooved portion reaches ad maximum 7 mm. from the end of the cannula, and the chiselling may be performed in any arc, by rotating the handle of the instrument.

A light mallet, such as we employ in mastoid operations, may be used in connection with the gouge.

The spiculæ of bone removed, if large, are withdrawn with a McKay forceps; if fragmentary, can be washed through the inferior meatus into the nasal fossa.

The porte-caustique is made of silver, with a corrugated tip tapering to a point, and protrudes 6½ mm. from the inferior opening of the cannula. To this point may be fused the desired chemical, or a small piece of absorbent cotton may be wound around it, for saturation with a cocaine solution or any other fluid selected. Before using the instrument for this purpose it must be withdrawn into the cannula far enough to protect the application until the desired point is reached.

The author is indebted to Mr. E. B. Meyrowitz for the highly satisfactory manner in which he has had the above-described instrument constructed.

30 West Thirty-fifth Street.

[1] Exhibited before the Academy of Medicine, Ophthalmological Section, June 19, 1893.

AN ENUCLEATION HOOK—A CATARACT HOOK—A SET OF NEEDLE CANALICULUS PROBES.

By JOHN DUNN, M.D.,

RICHMOND, VA.

The larger of the above double hooks is used in enucleation, after section of the muscles, to grasp the ball posterior to the insertion of the internal rectus, and to pull the ball outward and forward while section of the nerve is made. It differs from the usual hook for this purpose in being stronger and in the curve of the hooks.

The smaller double hook is used in the extraction of the lens when dislocated. It is a double-pointed Stevens hook. The shank is flexible.

The lower cut represents a set of canaliculus probes. The smallest probe has a diameter of ½ mm. throughout; the medium-sized probe has a rounded point ½ mm., and increases gradually to ¾ mm. at its centre; the largest probe is ½ mm. at its points, 1 mm. at the centre.

These needle probes are of value whenever, for any reason, there is need to know whether the canaliculi are free; when there is need to dilate these little canals; and when it becomes necessary to dilate the puncture in order to admit the point of a syringe to wash out the lachrymal sac. It is well to begin with a medium-sized probe. These probes are not flexible, and are made simply for use in the canaliculi, where, in my hands, they have proved more serviceable than any probe with which I am acquainted.

The above instruments were made for me by Messrs. Bartlett, Garvens & Co., of Richmond, Va.

Hospitals for Consumptives.—A society has recently been established in Saxony, the object of which is to erect hospitals throughout the kingdom for the treatment of phthisical patients. The Association is under the protectorate of King Albrecht; the presidents are Professors Curschmann, of Leipzig, and Fiedler, of Dresden.

The Old Story.—A correspondent of an English contemporary, writing from a small manufacturing town, says that the number of practitioners has risen there within four years from four to eight. The population in the meantime had not increased. As an evidence of how the doctors were prospering, three children of one of them were working in the factory.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending November 18, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	22	11
Scarlet fever	78	3
Cerebro-spinal meningitis	0	3
Measles	182	11
Diphtheria	198	58
Small-pox	10	1
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

Absolute Alcohol for Scientific Purposes is Duty Free.—The decision of the United States Circuit Court, S. D. New York, *in re* Kny, rendered June 27, 1893, is just reported in 57 Federal Reporter, p. 190, affirming the decision of the board of general appraisers, which reversed the classification of the collector of the port of New York on certain so-called "absolute alcohol." The latter classified it as "alcohol, 198 degrees, $4.95," at $2.50 per proof gallon, under the provisions of paragraphs 329 and 333 of Schedule H of the tariff act of October 1, 1890. Against this classification the importers protested, claiming that the article was a scientific preparation for college use, and duty free, under paragraph 677 of the free list of said tariff act. This "absolute alcohol" was made by chemical action by adding lime, and then distilling the liquid over again, by means of which the high percentage of 99.5 of alcohol was obtained, and was from two to three times higher in price than the regular alcohol of commerce, running only to 95 per cent. That it was "not intended for sale," within the meaning of said paragraph 677, was to be understood that it was not intended to be disposed of by sale to any other person than the corporation or society for whose special use the importation was permitted to be made, though in this case it was admitted that the importers' profit in furnishing the article to the colleges in question was about twenty per cent.—*Journal of American Medical Association.*

The Bacteriological Craze.—This is the age of germ rabies, and stark madness has overtaken the hygienists and the public with reference to bacteric infection. Every ounce of water we drink and every cubic foot of air we breathe is supposed to be scientifically assayed, and if more bacteria than the approved minimum are found, we are threatened with terrible consequences. The joke of the matter is that the people who are the victims of the craze do not seem to be able to see farther than their noses. They are in agonies of apprehension lest their milkman may have diluted his liquor with bacteria laden water, and they excessively excite themselves if the cubic contents of their sleeping-rooms is below the scientific minimum; but they pay no regard to the fact that, from morning to night, they are imbibing monstrous doses of bacteria through other media. They never think of the danger of carrying about their person a banknote which has been bosomed for unlimited time by a reeking fishwoman or costermonger—they box themselves up in a theatre or concert-room packed with inconceivable myriads of germs of all sorts of diseases—they suck grapes which have passed through an endless series of dirty hands, and they smoke cigars which have been lately grasped between the lips and fastened with the spittle of, perhaps, a phthisical tobacco worker. Lastly, they will cool their glass of champagne at the most *distingué* dinner-party with the ice recently frozen off a ditch which is little better than a cloaca, and they trouble not themselves about its bacteric befoulments. We notice we are moved to these observations by the fact that this latter point has been taken up by the Parisian hygeists, and that laws are being made to control the sale of dirty ice. It has been clearly established that much of the ice used in the most aristocratic cafés and clubs is taken off ponds impregnated with every describable abomination, and that when this ice is melted, myriads of bacteria of every form of virulence are found in a state of activity. We are not to be understood to discourage precaution against the use of foul water or foul air. It is well to be clean, even though we cannot be of spotless purity, but there is no doubt that the bacteric hobby is, at present, being ridden to death, and that any of us who survive for another twenty years will then laugh heartily at the fashionable craze of to-day, just as we now laugh at the iridectomy mania, Koch's tuberculine, or any of the equally *de rigueur* crazes of the past twenty years.—*Medical Press.*

The Treatment of Gout.—Mordhorst (*Therap. Monatch.*, August, 1893) believes that renal uric acid calculi can be dissolved by drinking abundantly even weak alkaline waters, and as the result of frequent experiments he has found that even faintly acid urine will reduce the size of these calculi. In view of these facts, which are more or less generally acknowledged, he asks why, even after a prolonged use of alkaline waters, the deposits in the tissues do not diminish, and the symptoms do not abate? Some years ago the author, thinking that the urine alone (and not the tissues) was rendered alkaline, examined the sweat, finding it always faintly acid or neutral under these circumstances. Freudberg made frequent experiments with the blood, finding it very difficult to influence its reaction, a large amount of the acid introduced appearing to be lost in the body. As uric acid and its salts can be deposited only from acid fluids which must exist in the skin, connective tissue of muscles, nerves, etc., it can be explained why alkaline waters have been unable to produce any effect. He therefore began to administer to his gouty patients sufficient alkaline water, namely, three bottles daily, to render the urine very alkaline and the sweat neutral or alkaline. The result was most satisfactory, tenderness diminishing, and the nodes becoming perceptibly smaller. The alkalinity of the urine was so great that ten to twelve per cent. of half-normal sulphuric acid were required to make it neutral, the urine at the same time being quite clear, and remaining thus for several days. As regards the different natural waters, this result was achieved only with Wiesbaden gout water, the chalk in other waters causing considerable turbidity of the urine. Another feature observed was the progressive diminution in the uric acid excreted. The author, who is himself subject to gout, confirmed these results in his own person, and adds that the water cure should, when possible, be supplemented by a suitable diet, warm mineral baths with subsequent perspiration in bed, and that one to two bottles of the above named Wiesbaden water should be taken daily.

A Poor Man's Dietary and its Chemical Equivalent.—Mrs. Ernest Hart writes in *The Hospital:* Very much has been written about dietaries, and the amount of food necessary to raise so many food-tons, in other words, to enable a navvy or docker to do his daily tasks, but no one except Mrs. Barnett, has, so far as I know, taken the trouble to turn the percentages and quantities of carbonaceous and nitrogenous food required to maintain health, into economical dishes of potatoes and meat for a family of a working man and his wife and eight children and to show us the cost of living to a farthing. Assuming that, on the lowest estimates, a working man requires 16 ounces of carbonaceous and 4 ounces of nitrogenous food a day; his wife 12 ounces of carbonaceous and 3 ounces of nitrogenous food: and his eight children an average of 8 ounces of carbonaceous, and two ounces of nitrogenous

food a day each; the total indicates that 92 ounces of carbonaceous and 23 ounces of nitrogenous food have to be daily provided. To show how this can be done with all the advantages of scientific culinary knowledge, Mrs. Barnett gives the following daily *menus* which I make no excuse for quoting at length:

Breakfast—Oatmeal Porridge.

Quantity of Food.	Cost. s.	Cost. d.	Carbonaceous. oz.	Nitrogenous. oz.
1½ pound of oatmeal	0	2½	14	3
1½ pint tinned milk	0	1½	2¼	1
½ pound treacle	0	1½	7	—

Dinner—Irish Stew.

1½ pound meat	0	8	3½	3½
4 pounds potatoes	0	2½	14	2
1½ pound onions	0	1	5¼	2
A few carrots	0	1	¼	—
½ pound rice	0	1	7	½
1½ pound bread	0	2¼	13½	2¼

Tea—Bread and Coffee.

2½ pounds bread	0	3¾	22½	3¾
2½ ounces coffee	0	2½	½	¼
1½ pint tinned milk	0	1½	2¼	1
Total	2	5	92	18½

Here there is a short allowance of nitrogenous food, which would be corrected by a rather larger allowance of bread. I will give another of these thoughtful daily *menus*:

Breakfast—Bread and Cocoa.

Quantity of Food.	Cost. s.	Cost. d.	Carbonaceous. oz.	Nitrogenous. oz.
2½ pounds of bread	0	3¾	22½	3¾
1½ ounce cocoa	0	1½	¾	¼
1 pint tinned milk	0	1	1¼	½
2 ounces sugar	0	½	1½	—

Dinner—Lentil Soup and Toasted Cheese.

1½ pound lentils	0	3	15	6
1 pound cheese	0	8	4½	5½
1½ pound bread	0	2¼	13½	2¼

Tea—Rice Pudding and Bread.

¾ pound rice	0	1½	10½	¾
½ pint tinned milk	0	1½	2¼	1
2 ounces sugar	0	½	1½	—
1½ pound bread	0	2¼	13½	2¼
Total	2	1¾	86½	22¼

A Suffering Patient with a Statistical Bent.—A physician of this city sends us the following unique report from a former patient, who had been turned over to the care of a New York surgeon for operative treatment of tuberculous glands of the neck.

"*Account of Myself up to October 29, 1893.*—Operated on May 10th, October 16th, 1890, and April 1, 1891. Have had 87 enlargements up to now and 66 suppurating openings. Have now 27 openings suppurating—6 in neck and throat, 6 in chest, 7 in back between waist and shoulder blade, 2 in thumb-joint, 1 in right armpit, 3 in left armpit, 1 in left side five inches below armpit, 1 in right side five inches below armpit. No less than 160 quarts of pus has come from me. Have used no less than 6,000 yards bandages, 15 yards of court plaster, 2 yards of oil-silk, 100 pounds of flaxseed, 20 pounds of absorbent cotton, 6 pounds of vaseline, 1 pound of salve, 1 pound of oakum, 2 pounds of licorice powder and salts, 1 ounce of aristol, 4 ounces of iodoform, 600 pills, mostly sulphide calcium, 10 plasters, 1 caustic pencil, 70 quarts inward medicine, 2 quarts peroxide hydrogen, 2 quarts carbolic acid, 12 quarts liquor, 1 pint iodine, ½ pint balsam Peru, 4 syringes. This does not reach the figure at all. Yet it is enough to convince the most morbid. I hope to get well yet. Yours, etc."

Physicians in Japan.—An ex-attaché writes: "Perhaps the most charming manner of compensating physicians for their care and attention is that which is customary among the natives of Japan. Physicians do not charge for their services, but, on the contrary, decline to name an amount, and protest against any idea of remuneration. Patients on their side are too proud to accept such services free, and send to the physician, not as a fee but more as a friendly gift or token of gratitude, a sum of money proportionate to the means of the giver, with some piece of silk, bronze, or lacquer work—the idea being that medical attendance is by far of too important and elevated a character to be desecrated by barter for filthy lucre." "What a pity," *The Medical Age* adds, "that our boasted Western civilization, with all its commonplace vulgarity and lack of delicacy, will not admit of adoption of such a charming method of intercourse between the medical man and his patients!" And yet a check is after all better than bric-à-brac. We are not disposed to quarrel with the methods of the West, though the bronze jugs of Japan are beautiful.

Ancient Cerebral Localization.—A plausible case was made out some time ago (by Professor Anagnostakis, of Athens, if we remember aright) for Homer as the first exponent of the antiseptic treatment of wounds; the germ of the medicinal treatment of drunkenness is to be found in Pliny; and microbes have been "in the air"—metaphorically as well as literally—for centuries. If there was one thing, however, that we had fondly imagined latter-day workers might claim as all their own without the shadow of a doubt as to the goodness of their title, it was the localization of function in the brain. Now M. Farabeuf, the distinguished Professor of Anatomy in Paris, has unearthed a work by Joseph Baader, who, it appears, was a Professor at Freiburg-im-Bresgau from 1746 to 1750, in which the possibility of localizing the sensory and motor functions of the brain is clearly indicated. The work, which is entitled *Observationes Medicæ Incisionibus Cadaverum Anatomicis Illustratæ*, was published separately in 1762, and was afterward reprinted in E. Sandifort's *Thesaurus Dissertationum* (vol. iii.) in 1778.—*British Medical Journal.*

A Decade of New Remedies.—"There are at least one hundred new remedies of synthetic origin now in general use that were not known ten years ago." So an American contemporary says; but we doubt if anyone can compile a list of one hundred. Who will try?—*Chemist and Druggist* (London), September 30, 1893.

"We are not responsible for the original statement; but the invitation is general, and we are anxious that our English friend should have a prompt response from America, so here goes," says the editor of *Notes on New Remedies:* "Acetanilid, agathin, alpha-oxynaphthoic acid, alumnol, amylenhydrate, analgen, antipyrine, antiseptol, antispasmin, antithermin, aristol, asaprol, asepsin, benzanilid, benzonaphthol, benzosol, betol, bromal-hydrate, bromoform, bromol, chinoline, chloralamid, chloral-ammonium, chloralose, chlorphenol, creolin, cresalol, cresin, cresol, cresol-iodide, cresotic acid, diuretin, dulcin, ethyl bromide, ethyl chloride, eugenol, eugenol-acetamid, euphorin, europhen, exalgine, formalin, formanilid, gallacetophenone, gallo-bromol, gallol, guaiacol, guaiacol-carbonate, homatropine, hydracetine, hydroquinone, hypnal, hypnone, ichthyol, iodol, iodopyrine, kairin, losophan, lysol, metaldehyde, methacetine, methylal, methyl chloride, methylene-blue, methylene chloride, methyl-violet, microcidine, naphthalene, naphthol, naphtopyrin, orexine, oxychinaseptol, paraldehyde, pental, phenacetine, phenetol, phenocoll, piperazine, pyridine, resorcin, resorcinol, saccharin, salacetol, salicylamide, saliphen, salipyrin, salocoll, salol, salophen, saprol, solutol, solveol, sozal, sozoiodol, styracol, sulphaldehyde, sulphaminol, sulphonal, tetronal, thalline, thermifugin, thilanin, thioform, thiol, thiophen, thioresorcin, thiosinamin, thymacetin, tolypyrin, tolysal, tribromphenol, trional, tumenol, uralium, urethane."

The French Society of Dermatology and Syphilography will hold its next annual meeting at Lyons, in August, 1894.

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Original Articles.

THE QUESTION OF THE COMMUNICABILITY OF LEPROSY.

By BEAVEN RAKE, M.D.,

LONDON, ENGLAND,

MEDICAL SUPERINTENDENT OF THE TRINIDAD LEPER ASYLUM; LATE MEMBER OF THE INDIAN LEPROSY COMMISSION.

From the earliest times leprosy has been regarded as communicable from one person to another. Under the Mosaic dispensation, and in Europe in the middle ages, there were stringent regulations providing for the segregation of those suffering from the disease.

This ancient opinion as to the communicability or contagiousness of leprosy, has not entirely held its ground in this century, and I purpose briefly to discuss some of the modern evidence for and against the theory of contagion.

The subject may be conveniently considered under the following six heads:

1. Bacteriological evidence.
2. Inoculations of animals.
3. Inoculations in the human subject.
4. Vaccination.
5. Practical experience.
6. Alleged increase of leprosy.

1. **Bacteriological Evidence.**—To Hansen, of Bergen, is due the epoch-making discovery of the leprosy bacillus and the inauguration of a new and scientific study of the disease. He first advocated the parasitic theory in 1869. For some years, however, he was in much doubt on the subject, and it was not until 1880[1] that he definitely announced the discovery of a specific bacillus in leprosy. Neisser,[2] in the autumn and winter of the same year, working at the San Lazaro Leper Hospital at Granada, Spain, confirmed Hansen's results, and applied the aniline-color tests which have since been recognized as distinguishing the bacilli of leprosy and tubercle from those of other diseases.

Neisser found bacilli in the cutaneous modules, the mucous membrane of the mouth, palate, and larynx, the connective tissue of the peripheral nerves, in cartilage and in the cornea, lymphatic glands, spleen, liver, and testicle.

Hansen's discovery has since been confirmed by observers in all parts of the world, and it may now be affirmed that the leprosy bacillus is present in some part or parts of the body of every leper, at some period or other, in the course of the disease.

It may now be well to briefly examine the results which have attended the attempted cultivation of the bacillus lepræ.

Hansen[3] kept specimens of leprous blood in a moist chamber and obtained a mycelial growth, which at that time he called a leprosy culture. It is, however, probable that this growth was due to fouling, and Hansen has abandoned his view.

Neisser, when working at Granada, removed an unbroken tubercle with every precaution, and finely divided it with needles sterilized in a flame. With fragments of this tubercle he inoculated blood serum. He also kept pus and juice from leprous nodules in sealed capillary tubes. As a result of these experiments, he describes three different bacilli. As, however, he failed to cultivate any of them in generations, it is impossible to be certain that he got true cultures.

Arning[1] allowed pieces of leprous tissue to macerate and decay for several months in water at ordinary temperatures, and described growths of the leprosy bacillus, but he did not regard these as true cultures. At the Trinidad Leper Asylum,[2] I made a series of cultivation experiments extending over almost three years. As nutrient media I used blood serum, ascitic fluid, hydrocele fluid, all from the bodies of lepers, and various combinations of agar and gelatine with these. Pieces of cutaneous leprous nodules, of lymphatic glands, and of nerve were used for inoculation, also fragments of the viscera of lepers, and vaccine lymph. Numerous growths of staphylococci of various kinds were obtained, but no cultures of leprosy bacilli. Inoculations of animals with the growths were negative. Results obtained by allowing pieces of tubercle to putrefy in fluids were equally negative, nor did I observe the abundance of leprosy bacilli described by Arning in earth in which lepers had been buried. To test this point I buried leprous hands and other specimens, and dug them up at varying intervals. Examinations of the surrounding earth failed to show any specific bacilli.

In 1887, Bordoni-Uffreduzzi,[3] of Turin, announced the cultivation of the bacillus lepræ. Having failed, like other experimenters, to grow the bacillus from pieces of leprous nodules implanted on solid media, he regarded the bacilli in these nodules as enclosed in cells and probably dead. He therefore examined other tissues, and in the bone-marrow of a dead leper he found free bacilli. He inoculated tubes of peptone-glycerine serum with fragments of this bone marrow, and obtained cultures of a small bacillus frequently bulbous at the ends, and resembling in form and size the bacillus of the tissues. It, however, took the fuchsin stain with far more difficulty than the latter bacillus.

When passing through Turin in 1891, I called on Professor Bordoni-Uffreduzzi, who kindly showed me coverglass preparations from his original culture, and gave me a secondary growth. I took this tube to London with all possible care, and raised sub-cultures from it in Dr. Slater's laboratory, which he was kind enough to place at my disposal. I fear, however, that some contamination must have taken place, for the sub-cultures which I raised differed entirely from that originally figured by Uffreduzzi. It may be stated here that the Italian professor made a large number of inoculation-experiments on animals, but wholly failed to establish the pathogenic nature of his cultivation.

Gianturco,[4] of Naples, has obtained a cultivation which Uffreduzzi considers identical with his own. More recently Campana,[5] of Genoa, has described a third bacillus as cultivated from leprous material. I have seen specimens from these two cultures, but could not feel convinced that they were leprosy bacilli.

A series of culture-experiments was carried out at Almora and Simla,[6] by Dr. Buckmaster, Surgeon-Major Thomson, and myself, according to a method suggested by Dr. Buckmaster. Blisters were raised over cutaneous leprous nodules, and at the same time over areas of nor-

[1] Virchow's Archiv, 1880, Bd. 79, p. 31.
[2] Ibid., 1881, Bd. 84, p. 514. [3] Loc. cit.

[1] Journal of Leprosy Investigating Commission, No. 2, p. 117.
[2] British Medical Journal, August 4, 1888, p. 215; and Annual Reports on Trinidad Leper Asylum.
[3] Zeitschrift für Hygiene, vol. iii., p. 178.
[4] Giorn. della Assoc. Nap. di Med. et Nat., 1890.
[5] Riforma Med., No. 14, 1891.
[6] Appendix to Report of Indian Leprosy Commission, 1893.

mal skin, on lepers. Sterilized capillary vaccine-tubes were then charged with a minute quantity of the fluid from blister over tubercle, and with seven or eight times as much fluid from blister over normal skin. They were then sealed in a flame. In order to secure a constant temperature the tubes were packed with a small thermometer in a cylindrical box, and carried in the axilla. After incubation for one month, the tubes were opened, examined, and resealed. Several bacilli resembling those of leprosy were seen. A tube containing some of these bacilli was now sterilized as much as was possible without injury to the contents, broken at both ends, dropped into glycerine bouillon, and shaken. On the third day, a slight turbidity appeared, and increased daily. Minute particles collected on the surface, and adhering together, formed a pellicle which gradually extended from the centre to the periphery. From this original bouillon, glycerin-gelatin and glycerin agar were inoculated, and vigorous growths were obtained. Material from two different patients gave similar results. Under the microscope these growths showed thick clusters of bacilli shorter and slightly thicker than those found in leprous nodules, but retaining the pink stain after treatment in warm Ziehl's solution for twenty minutes, and subsequent decolorization in twenty-five per cent. nitric acid. Subcultures from the original growths did not resist the action of the acid so well, though they stained to some extent.

Rabbits, dogs, and a monkey were inoculated with small quantities of these cultures, but the results were entirely negative. We were thus unable to assert positively that the growths obtained were those of the bacillus lepræ, but that the bacillus cultivated by us had several points in common with that in the tissues is undoubted.

Remembering the four postulates which have been laid down by Koch as necessary to show beyond a doubt that a micro-organism is the cause of a disease, and applying them to the case of leprosy, it will be evident, from the various observations and experiments above quoted, that the first postulate is generally admitted as regards the disease under consideration. The second is doubtful, while the third and fourth have never yet been demonstrated.

2. **Inoculations of Animals.**—These may be of two kinds: 1, with cultures; 2, with tubercles or other pieces of leprous tissue.

We cannot logically speak of inoculations of cultures of the bacillus lepræ, for, as was shown in the last section, such a culture has not yet been demonstrated beyond doubt. All we can say is, that cultures of bacilli obtained after inoculation of media with leprous products have always failed to produce leprosy in animals. This was alluded to in the last section.

The other method of inoculation of animals which has been tried, is by means of pieces of leprous nodule or other leprous tissue.

Neisser[1] was one of the first to inoculate animals with leprous material. When working at Granada in 1880, as already mentioned, he experimented on rabbits and dogs. Pieces of freshly extirpated leprous tubercle were introduced into the peritoneal cavity and anterior chamber of the eye in rabbits. The results in them were absolutely negative. Pieces of leprous tubercle were also inserted beneath the skin of dogs. One of the dogs died after a month, and a small nodule was found at the site of inoculation. This contained numerous bacilli. Another dog was killed about three months after inoculation, and a local nodule the size of a bean was found. This contained characteristic leprous cells, but no bacilli. Neisser was of opinion that a local leprosy was thus produced, which, however, did not become general.

Damsch[2] introduced leprous tubercle into the anterior chamber of the eye of rabbits, and described an infiltration of the iris, ciliary body, and Descemet's membrane with cells containing leprosy bacilli. Vossius[3] obtained similar results, but neither of these observers found a distribution of bacilli through the body. Wesener, Leloir and Campana[4] have, however, shown that results identical with those described by Damsch and Vossius are obtained on implanting leprous material hardened for years in alcohol.

Campana[5] inoculated leprous tubercle in the vascular comb and beard of fowls, and often obtained at the site of inoculation a local tumor containing large cells produced in the inflammatory process. These took up leprosy bacilli in the same way as leucocytes take up inorganic foreign bodies.

Köbner[6] and Hansen[7] found negative results in monkeys after inoculation.

Hillairet and Gaucher[8] inoculated a pig with leprous tubercle, but the results were negative. Vidal[9] also performed a similar experiment, and sections of the skin and subcutaneous tissue containing the inserted fragment, showed a year after the inoculation numbers of leprosy bacilli in the implanted mass, but none in the surrounding tissue.

Thier,[10] Kaurin,[9] Arning,[10] and Leloir[11] have hitherto failed to establish leprosy in animals. At the Trinidad Leper Asylum[12] I have made a series of experiments, extending over nearly ten years. Guinea pigs, rabbits, cats, pigs, bats, fowls, small birds, a dog, and a parrot have been inoculated with pieces of cutaneous nodule and other leprous material, with no result, except in the cases presently to be described as capable of another explanation. Besides attempting to inoculate beneath the skin, in the anterior chamber of the eye, and in the peritoneal cavity, I have fed pigs and fowls, during varying periods up to two years, with pieces of leprous cutaneous nodule, and with parts of viscera from the bodies of lepers. Up to the present time I have seen no sign of infection in this way.

The experiments which have attracted most attention of late years are those of Melcher and Ortmann,[13] in Königsberg. They introduced pieces of freshly extirpated leprous tubercle into the anterior chamber of the eye of rabbits, and described four months afterward a visceral and lymphatic gland lepræ. The autopsies showed the cæcum, spleen, lungs, and lymphatic glands to be infiltrated with nodules varying in size from a pin's head to a pea. In these nodules were quantities of bacilli, which they regarded as those of leprosy.

Arning[14] and Raffer, who have examined the specimens of Melcher and Ortmann, are convinced that the Königsberg experimenters have succeeded in inoculating animals with leprosy. Wesener, on the other hand, has carefully gone over the same ground, and critically controlled these experiments, and he concludes that proliferation of the leprosy bacilli does not occur, but merely a diffusion of the bacilli introduced. He and Hüppe[15] believe that Melcher and Ortmann, like many others, have sown leprosy and reaped tuberculosis.

In this connection I may allude to a series of observations which I have lately made at the Trinidad Leper Asylum, some of which have been published.[16]

In a large proportion of the bodies of lepers I have found after death, either, 1, pulmonary phthisis indistinguishable from that occurring in non-lepers, and characterized by small tubercles scattered more or less through-

[1] Virchow's Archiv, 1881, vol. iv., p. 534.
[2] Ibid., 1883, vol. xc., p. 20.

[1] Bericht der 16 Vers. der Oph. Gesell. Heidelberg, 1884.
[2] British Medical Journal, April 29, 1893, p. 912.
[3] Archiv. sulla Scienz. Med., 1883.
[4] Virchow's Archiv, 1882, vol. lxxxviii., p. 282.
[5] International Medical Congress, Copenhagen, 1884.
[6] Société de Biologie, 1881.
[7] Cornil et Babes: Les Bactéries, p. 761.
[8] Vierteljahresschrift für Dermat. and Syph., 1886.
[9] Journal of the Leprosy Investigating Commission, No. 2, 1891, p. 68.
[10] Appendix to Report on Leprosy in Hawaii, 1886.
[11] Traité théorique et pratique de la Lèpre, p. 235.
[12] British Medical Journal, February 5, 1887, p. 275; and Annual Reports of the Trinidad Leprosy Asylum.
[13] Berlin. klin. Wochensch., 1885, No. 13; 1886, No. 9.
[14] Journal of the Leprosy Investigating Commission, No. 2, p. 117.
[15] British Medical Journal, April 29, 1893, p. 912.
[16] Lancet, April 1, 1893, p. 719.

out the lungs, and often agglomerating, caseating, and breaking down into large cavities at the apices and elsewhere; or, 2, a general diffusion of small gray or yellow tubercles throughout the viscera, and sometimes on the serous membranes.

The latter condition often appears at the autopsy to be of recent date, and from the clinical symptoms, such as fever and wasting, which come on a few weeks before death, it would seem that the appearance of these visceral tubercles coincides with the absorption of cutaneous leprous tubercles which so often precedes death. It would therefore seem that these visceral tubercles are either leprous and due to absorption of leprous products from the skin, or they are tuberculous and due to accidental absorption of tuberculous material, quite apart from the leprosy.

I inoculated five guinea-pigs beneath the nape of the neck, with small pieces of pulmonary tubercle taken from three different lepers. The five guinea-pigs died, or were killed, at periods varying from four to six months after inoculation, and in all of them were found enlargement and caseation of lymphatic glands, and small nodules in the lungs, liver, and spleen, varying in shape and in size, ranging from about one-sixteenth to one-third of an inch in diameter. In the lungs they were translucent, and in the spleen and liver yellow or dark red in color. Microscopical examination showed bacilli indistinguishable from tubercle bacilli. As I have frequently inoculated guinea-pigs with leprous cutaneous nodules, and have always found no changes whatever in the viscera after death, I am led to believe that the above-described visceral nodules are tuberculous in nature, and further, that they are derived from the pulmonary tubercles of lepers. If they were derived from material introduced accidentally during the process of inoculation, we should expect equally to find them following the inoculation of leprous material. This is what Wesener claims for Melcher and Ortmann's inoculations, but in my experiments, as already stated, I have never found such nodules.

The obvious inference, then, is that the visceral tuberculosis so common in lepers is tuberculous, *i.e.*, connected with the bacillus tuberculosis. But if this visceral tuberculosis is due to absorption of cutaneous leprous tubercles, we are faced by a new difficulty, and there are only two solutions:

1. There is absorption of independent tuberculous material, presumably tubercle bacilli, through the open ulcers so common on leprous tubercles.

2. The bacillus leprae and the bacillus tuberculosis are varieties of the same bacillus, as has been suggested by Danielssen.

It is obvious that the question is by no means solved yet, but these recent experiments of mine have an important bearing on Melcher and Ortmann's results and Wesener's criticism.

I may state here that I failed to obtain cultures of the bacillus either of leprosy or of tubercle, from the original nodules in the lungs of the lepers, or from the nodules produced in the viscera of the guinea-pigs after inoculation.

Tedeschi [1] has recently reported an experiment which proves, in his opinion, that leprosy is transferable from man to animals. A monkey was inoculated beneath the spinal dura mater with a piece of leprous nodule. The animal died in eight days, and at the necropsy new tissue was found at the seat of inoculation. Large numbers of bacilli resembling those of leprosy were found here, also in the cerebro spinal fluid. The spleen was swollen and contained similar bacilli. These bacilli would not grow on agar and blood serum, while from the bacilli found after similar inoculations with tubercle, growths were obtained.

This experiment is the only one of its kind, and it will be necessary to repeat it before an opinion can be expressed. Meanwhile the weight of accumulated evidence referred to in this section seems to render probable Besnier's views, that leprosy is an essentially human disease and cannot be transmitted to animals.

[1] Centralbl. für Bakt., August 1, 1893.

3. **Inoculations in the Human Subject.**—Intentional inoculations performed on man have necessarily been few. Like those in animals they may be of two kinds:

1. Inoculations with micro organisms obtained in attempted cultures of leprosy bacilli.

2. Inoculations with pieces of tubercle or other leprous products.

1. *Inoculations of Culture Products.*—Healthy subjects for inoculation not being obtainable, I determined to try the effects of inoculation of culture products in anæsthetic lepers. During the latter half of 1889 I made some cultures on agar and serum and on solidified hydrocele fluid, from a fragment of a cutaneous leprous tubercle, and from a piece of liver from the body of a tuberculated leper. The microscope showed this liver to contain numerous leprosy bacilli. The growth obtained from these tissues showed no leprosy bacilli, but quantities of micrococci. Though these cultures were thus negative in not containing the specific organisms of leprosy, I thought it worth while to try the effect of injecting them, for it was quite possible that they might contain other products not recognizable by the microscope.

I chose twelve anæsthetic lepers and injected solutions of the growths above mentioned beneath the skin in various parts of the body. The immediate result was in most cases local swelling, redness, and tenderness, with more or less temporary rise of temperature. These symptoms usually passed off in a few days. In one or two cases, however, an abscess formed at the site of injection.

The late history of the cases was as follows: Four of the patients died within the next two years of intercurrent disease. No development of tubercles was found in them either locally or elsewhere. The eight survivors were examined by me on May 29, 1893, nearly four years after inoculation. In six of them there was no thickening or any indication of the site of inoculation, and no tubercles had developed anywhere. In the two remaining patients there was, in one a thick crop of tubercles, and in the other a diffuse infiltration of the skin, with tubercular masses on the face and ears.

In these two cases an eruption of tubercles occurred some time after the injection in anæsthetic lepers of products derived from the attempted culture of leprosy bacilli. Whether these eruptions were *propter hoc* as well as *post hoc*, is a difficult question. There are two possible fallacies:

1. The anæsthetic lepers might have developed tubercles independently of any injection. I have never seen a pure anæsthetic leper develop tubercles, but Leloir [1] quotes three cases, so we must admit the possibility.

2. The injection of micrococci or other irritant products of attempted cultivation may, through the febrile disturbance thus set up, have liberated bacilli already present in the peripheral nerves, and these, by their entry into the lymphatics of the skin and subcutaneous tissues, may have brought about tuberculation.

It is evident that experiments made on subjects already leprous can only have a partial value, but in view of the extremely rare occurrence of tuberculation in pure anæsthetic lepers, the trial seemed worth making and recording.

2. *Inoculation of Leprous Nodule or other Leprous Material.*—The classical example of inoculation of a healthy man with leprous nodule, is the inoculation of the Hawaiian convict Keann by Dr. Arning,[2] in the Oahu jail on September 30, 1884. The case is so well known that I need only refer to it very briefly here. A small piece of leprous nodule was introduced beneath the skin of the left forearm, and a month later the patient suffered from pain in the left shoulder, elbow, and wrist, accompanied by painful swelling of the ulnar and median nerves. There was no fever and only very slight constitutional disturbance. During the next six months the neuritis

[1] Op. cit., p. 209.

[2] Archiv fur Dermat. und Syph., January, 1891.

gradually decreased, and a small leprous nodule formed at the seat of inoculation. Leprosy bacilli could be detected here sixteen months afterward. In September, 1887, distinct symptoms of leprosy developed, and in another year the disease was fully established. Though at the time Dr. Arning made the experiment he was assured by Keann himself, and by those who knew him, that his family was free from leprosy, it afterward came out that his son, nephew, and maternal first-cousin were lepers either before or after the date of the inoculation. It would thus appear that in addition to the strong racial predisposition to leprosy which exists in Hawaiians, there was in Keann's family a peculiar aptitude for taking the disease. It is therefore quite possible that he may have had latent leprosy when he was inoculated. Moreover, as Arning points out, we have at present no criterion of the living leprosy bacillus, so that the bacilli in the inoculated nodule may have been dead at the time of the experiment. From whatever point we look at it, we can by no means regard the inoculation as conclusive, and Arning himself freely admits that it is not a crucial test.

Nearly forty years ago a Norwegian physician [1] inoculated himself and twenty healthy individuals with blood and fragments of cutaneous tubercle, or with blood or pus from such tubercles. All those who were inoculated were watched for many years, but they remained absolutely healthy.

Profeta [2] inoculated himself and nine other people. The observations extended over sixteen years, and were negative. The materials used were pus from leprous ulcers, and blood from tubercles and from anæsthetic patches. These were rubbed into the scarified skin or into raw surfaces produced by blisters, or injected beneath the skin by means of a Pravaz syringe. Similar experiments have been made by Danielssen, Holst, and Jitsch,[3] all with negative result. Hansen [4] inoculated anæsthetic lepers with material obtained from tuberculated lepers, but no development of tubercles took place.

In the Trinidad Leper Asylum I inoculated thirty anæsthetic lepers in December, 1887, and January, 1888, with fragments of cutaneous leprous tubercle. In 1889 three more anæsthetic lepers were inoculated with pieces of tubercle taken during acute leprosis, *i.e.*, fever accompanied by an outbreak of tubercles. I thought that possibly during these acute attacks the cutaneous nodules might contain living bacilli, and thus their inoculation might be followed by a development of the disease.

Since the inoculations were performed, nine of the patients have died and one has left the asylum. In none of them was any development of tubercles noted. The remaining twenty-three were examined on May 29, 1893. Twenty-two of them were absolutely free from tubercles, though in one of them, three months after inoculation, there was a subcutaneous nodule to the outer side of the cicatrix, about the size of a No. 6 shot. This, however, had disappeared in another month.

The twenty-third patient showed infiltration of the skin of the trunk, upper extremities, and face, with large masses of tubercle on the face and ears. This patient has already been referred to as having been also injected with culture products. It is therefore evident that we cannot say whether he became tuberculated as a result of the leprous nodule inoculation, of the culture injection of both of these, or independently of them.

Putting all the inoculations together we find that out of a total of forty anæsthetic lepers inoculated with either tubercles or cultures or both, two developed tubercles afterward, but it is impossible to say if this was the result of the inoculation.

Thus the evidence hitherto obtained from experiments performed on man may be regarded as almost entirely negative, no case being beyond the possibility of doubt.

4. **Vaccination.**—Of late years the antivaccination party, after exhausting every other argument against vaccination, has endeavored to show that leprosy is often spread in this way.

Probably the case which is most often quoted is that published by Gairdner [1] in 1887. A doctor in a tropical island vaccinated his own child from a native child who afterward became leprous. Another white child was vaccinated from the doctor's child, and both these children also developed leprosy.

Though Professor Gairdner carefully avoided expressing any opinion, and merely gave a statement of such facts as were known to him, the case was at once seized by those anxious to prove the communicability of leprosy by vaccination. A perusal of the case, however, shows that the details are very few, and insufficient to establish any conclusion. Moreover, leprosy was endemic in the island, so that the possibility of deriving it from outside sources was always present.

Daubler,[2] two years later, published an account of two women on Robben Island, Cape of Good Hope, both of whom, he believed, contracted leprosy through vaccination. They were vaccinated with lymph obtained from a patient who afterward died of tuberculated leprosy. In the first patient the site of inoculation swelled a few days after the puncture and became brown in color, but no true vaccine vesicle formed. After the swelling had subsided fever and rigors occurred, and by the eighteenth week there was a discolored tumefaction of the right frontal eminence. The second patient, two months after the vaccination, showed the typical leonine aspect of a tuberculated leper. These cases are frequently quoted, but clinical experience does not warrant the belief that such an essentially chronic disease as leprosy is produced so soon after inoculation.

More recently a long series of cases by Dr. Roger Chew, of Calcutta, has been published. A similar attempt has been made to show that leprosy was communicated by vaccination from diseased to healthy persons. The data, however, are very scanty, and the cases are open to the objection which obtains in those already quoted. In Bengal there are districts where the percentage of lepers is as high as, or higher, than in any other part of India, though, as will readily be seen by a reference to the annual reports on sanitary measures in India, Bengal is by no means the most vaccinated province.

The proposition may be stated as follows: If vaccine lymph be taken from a child in a locality where leprosy is endemic, and if such lymph be sent to a country free from leprosy, and a healthy child in such country, and who had never quitted the country, be vaccinated with such lymph, and if this child, after vaccination and without leaving the country, develop leprosy, then it may be taken as proved that leprosy is communicable by vaccination.

An experiment somewhat approaching the hypothetical one just described, has been performed in India. Surgeon-Major Pringle [3] was sanitary commissioner in the Northwest Provinces for twenty years, from 1864 to 1884. During this period he was in the habit of bringing down vaccine lymph at the end of each hot season from British Garhwal, a markedly leprous district, and using it for vaccinating in the plains between the rivers Ganges and Jumna, where the proportion of lepers was far smaller.

The census returns for the districts in question are as follows:

	British Garhwal.	District between Ganges and Jumna.
1867–72	20 to 30 per 10,000	1 to 5 per 10,000
1881	10 to 20 per 10,000	1 to 5 per 10,000

Thus not only has leprosy fallen in British Garhwal, but in the districts vaccinated with lymph therefrom the proportion of lepers has remained stationary.

As the number of individuals vaccinated with the

[1] La Semaine médicale, 1885.
[2] Giorn. intern. delle Sci. med., 1884.
[3] British Medical Journal, April 29, 1893, p. 912.
[4] Leloir, Op. cit., p. 238.

[1] British Medical Journal, June 11, 1887, p. 1269.
[2] Monats. für prakt. Dermat., 1889, Bd. viii. p. 123.
[3] Paper at British Medical Association, Bournemouth, 1891.

lymph under consideration was gradually accumulating for twenty years, making due allowance for removal by death and other counteracting influences, such as the diminution of leprosy in British Garhwal, we should expect that by 1881 the figures would show some evidence of the increase of leprosy which is alleged to follow the use of lymph collected in leprous districts. This increase, however, does not appear in the census returns, and we may fairly discredit its existence.

Various direct experiments have been made bearing on the subject of vaccination and leprosy.

Arning [1] in Hawaii vaccinated three lepers and examined the lymph. He found bacilli in the lymph and crusts in a case of extensive tuberculated leprosy in which the skin contained bacilli. In two cases of pure anæsthetic leprosy he found no bacilli.

In the Trinidad Leper Asylum [2] I made twenty-seven examinations of pure and impure lymph from vesicles raised in tuberculated, anæsthetic, and mixed lepers. Ehrlich's method of staining failed to show leprosy bacilli in any of the specimens, and animals vaccinated with lymph from lepers did not develop leprosy. I also vaccinated an anæsthetic leper with lymph from a mixed leper. Typical vesicles rose and ran the ordinary course, but there has been no development of tubercles. This experiment was done seven years ago.

Dr. Simpson vaccinated some lepers in Calcutta and described bacilli in the vaccine lymph.

At the Almora Leper Asylum [3] unusual facilities were offered, through the kindness of the authorities, for making an exhaustive study of vaccine lymph from lepers. Accordingly Dr. Buckmaster, Surgeon-Major Thomson and I had all the available lepers vaccinated. Eighty-seven were so treated, and of these forty, twenty-one males and nineteen females developed vesicles which were examined. Ninety-three cover glasses were prepared, and in no case were leprosy bacilli undoubtedly found. Suspicious-looking rods taking fuchsin were seen in one case in vesicles raised over tuberculated ears, and in another case in vesicles over anæsthetic patches.

But even if we regard these cases as positive and give them their utmost value, they have little or no bearing on the question at issue, for no vaccinator would be likely to vaccinate a leper over a tubercle or anæsthetic patch, and use the lymph obtained from such vesicles for vaccinating healthy individuals.

We may conclude therefore that the weight of evidence given in this section goes to show, 1, that the alleged cases of transmission of leprosy by vaccination are open to serious doubt, and 2, that, assuming the presence of bacilli to be necessary to produce leprosy, no danger need be apprehended from the vaccine lymph of even an actual leper, provided he is vaccinated on apparently normal skin. *A fortiori* therefore there is no danger of transmitting leprosy by using as a vaccinifer a child born of a family in which leprosy exists.

5. Practical Experience.—Almost all the alleged instances of communication of leprosy from one person to another have occurred in countries where the disease is endemic, and are therefore open to the fallacy of concomitant variations referred to in other sections.

The following case, which came under my notice during 1892, is a typical example of the histories so often quoted, but it has the additional merit that to a great extent I was able independently to verify the dates.

A man consulted me for a perforating ulcer of the foot. I discovered also anæsthesia of the upper extremities and decided that he was a leper. He then told me that five years ago he lived for six months with a notoriously bad woman who had been discharged from the Leper Asylum for misconduct. At that time he said he was healthy. About two years after he left the woman, ulcers formed on his feet and he lost sensation in his hands.

Some months after seeing the man I accidentally came upon his name in the register of out patients for 1890. He was entered at that time as a doubtful case of leprosy. Thus an unexpected corroboration was afforded of the patient's statements as to dates, for, from what he told me, he must then have had initial symptoms for about six months. From the entry in the register it is clear that these symptoms were not sufficiently pronounced to justify more than a doubtful diagnosis.

Cases like the above are met with from time to time, but it is seldom that the dates given can be confirmed. Indeed they often break down on cross-examination.

Very important negative evidence exists in Trinidad. For twenty-five years the lepers in the asylum have been nursed by Dominican Sisters. During this time these nuns have been in the closest contact with the lepers, washing and dressing ulcers and gangrenous extremities so that their hands have been constantly soaked with leprous discharges. No sister at the Trinidad Asylum has ever developed the disease.

It is true that Father Damien died of leprosy at Molokai, but when we remember how rapidly leprosy has increased in the Sandwich Islands in spite of segregation, we must admit that he may have derived the disease from an outside source.

During our investigations in India we were brought in contact with many cases of supposed contagion of leprosy. As will be seen on reference to the Report of the Leprosy Commission,[1] all these cases broke down on examination with the exception of that of a sweeper at the Calicut Leper Asylum, who had been employed in dressing the ulcers of the inmates for twenty-three years. Two years before our visit he had developed leprosy. Even in this case there was a discrepancy as to dates, an old inmate of the asylum asserting that the sweeper had suffered from leprosy for at least six years, but that he was apparently healthy twenty years ago.

The extreme difficulty of getting any coherent statement as to dates from an oriental is, however, so well known, that we must take the case for what it is worth. The dates given by the two men are fairly approximate.

But the only case which is free from the fallacy of concomitant variations already mentioned is that reported by Dr. Hawkley Benson,[2] of Dublin. A man after twenty-two years' service in India returned to Ireland with fully developed leprosy and was shown by Dr. Benson at a meeting of the Dublin Medical Society in 1872. He died a year and a half later. During this last period of his life his brother slept in the same bed with him and wore his clothes. This brother, who had never been out of the United Kingdom, developed leprosy about three years after the death of the first patient, and was shown by Dr. Benson at a meeting of the Dublin Medical Society, in 1877. It is much to be regretted that photographs of the two brothers were not taken, but I am informed on good authority that there were present at the meetings of the society, doctors who had seen leprosy abroad and who were therefore capable of confirming the diagnosis.

Cases of leprosy in persons living in a leprosy free country and who had never quitted it are also reported by Dr. Edmund Atkinson [3] in Maryland and by Dr. Rees [4] in Stepney. In neither of these cases, however, was actual contact with a leper proved, though there was a strong suspicion of it in Dr. Atkinson's case.

In discussing any case recorded in a country free from endemic leprosy, it must also be borne in mind that the diagnosis between leprosy and syphilis, especially in their early stages, is often extremely difficult.

Assuming the diagnosis to be correct, Dr. Benson's case remains as the only one in which all other possible sources of origin were excluded and in which practical experience pointed to a communication of the disease from one person to another.

[1] Appendix to Report on Leprosy in Hawaii, 1886, p. xlv.
[2] British Medical Journal, August 20, 1887, p. 433.
[3] Journal Leprosy Investigating Commission, No. 4, December, 1891, p. 33.

[1] Report of Indian Leprosy Commission, 1893.
[2] Dublin Medical Journal, 1877.
[3] Archives of American Medicine, June, 1882.
[4] Guy's Hospital Reports, 1868.

6. The Alleged Increase of Leprosy.—Closely connected with the question of communicability of leprosy is that of the increase of the disease. If leprosy is communicable in any high degree we should expect a rapid increase all over the world, for segregation is not absolute anywhere.

In Hawaii[1] the official returns show 274 lepers in 1868; in 1888 there were 749 lepers segregated at Molokai and about six hundred at large; at the end of 1890 there were 1,213 lepers in the custody of the Board of Health, the highest number ever reached; and on March 31, 1892, there were 1,115—a decrease of 98 during the period. At the latter date it was stated that only 17 lepers and 60 suspects were known to be at large.

The above figures show that up to 1888 there was a very rapid increase of leprosy in spite of segregation, but that in the last five years there has probably been a slight decrease. In estimating the value of these figures it must however be remembered that great vigilance on the part of the authorities evokes greater efforts on the part of the leper population to avoid detection and segregation. It is therefore quite possible that in 1892 more than seventeen lepers were hiding in the mountains and remote country districts. More time must elapse before the value of segregation in these islands can be accurately gauged.

In Memel[2] Dr. Rosenthal reports a slight increase of leprosy. No case seems to have been known there before 1882. In that year the first case occurred, and seven more cases were noted up to 1889. No communication could be traced with Russia, where the disease is known to be endemic.

Turning now to countries where for many years little or no trouble has been taken to insure absolute segregation, the published figures show a very different result.

1. Trinidad.—Only three official enumerations of lepers have been made in Trinidad since the island was ceded to the English.

In 1813 Sir Ralph Woodford, wishing to establish a leper asylum, caused an official inquiry to be made as to the number of lepers in the island. Seventy-three were then found.

In 1815 the question of the founding of this asylum came before the Legislative Council, and the same Governor ordered another inquiry. This time the result was seventy-seven lepers. The population of the island was then given as 32,000.

The next inquiry was ordered by Sir William Robinson, and was completed in 1890. Every effort was made to obtain full returns, the chief sources of information being the district medical officers and wardens. The result showed a total of 414 lepers, of whom 210 were inmates of the Leper Asylum. The census next year showed the population of Trinidad to be 200,028.

Calculated from the above figures we find that the percentage of lepers in 1815 was .242, while that in 1891 was .206. It must in fairness be stated that the latter figures are not quite accurate, for the leper enumeration was completed in 1890, while the general census was taken the next year. The figures, however, are sufficiently approximate.

The question may be stated in another way: If there were 77 lepers in a population of 32,000 in 1815, how many ought there to be in 1891, with a population of 200,028? The answer, when worked out, is 481.

Allowing, therefore, a liberal margin of possibly undetected cases over and above the 414 recorded in 1890, we may fairly conclude that in Trinidad leprosy has not increased relatively to the population, but, if anything has slightly decreased.

2. India.—The recently published report of the Census Commissioner, Mr. J. A. Baines, shows an absolute decrease of leprosy in India since the last census. The lepers enumerated were:

In 1881	131,660
In 1891	127,056

There is thus an absolute decrease of 4,604. Mistakes and omissions have no doubt been made by the native enumerators, but these obtain in both censuses, though the probability is that diagnosis has been more exact in the last enumeration.

An important point, however, is that in the 1881 census, no lepers were returned from Upper Burma, Rajputana, Travancore, and the Central Province States, whereas the 1891 census shows 2,960, 1,708, 968, and 1,259 respectively for these districts, or a total of 6,895. It is extremely unlikely, to say the least, that in 1881 there were no lepers in the above-mentioned areas, and it is therefore highly probable that the actual total decrease is very much greater than that shown by the figures.

3. Norway.—The figures for Norway are often quoted. I have not yet been able to get any returns later than 1885. In 1856 there were 2,900 lepers. In 1885 there were 1,195 lepers. During this period of thirty years there was a steady fall, with the exception of a slight rise in 1859. Until 1885 there was no compulsory isolation of lepers. In that year a law was passed authorizing the detention in asylums of those who would not or could not sufficiently segregate themselves in their own homes.

Dr. Kaurin,[3] writing this year says that in the eight years which have elapsed since restraint became legal 99 lepers have been admitted to the Reknaes Asylum, of whom only 14 came in by reason of the new law. It is therefore evident that in Molde at least, legislation has so far had little to do with the admission of lepers to the asylum. The figures and dates already given are sufficient to show that the decrease of leprosy in Norway has been almost, if not entirely, independent of compulsory segregation.

4. Iceland.—Mr. Jeaffreson,[4] who visited Iceland in 1892, states, on the authority of Dr. Schierbeck, that there were 148 lepers in Iceland in 1800, and about 35 in 1892. He also states that the deaths from leprosy in 1768 were 73 per 1,000, while in 1868 they were 15.7 per 1,000. It would appear that leprosy is fast becoming extinct in Iceland, in spite of the entire absence of segregation.

5. Finland.—Dr. Fagerlund[5] reports that at the present time there are 51 lepers in Finland, of whom 32 are males and 19 females. The disease is disappearing from many parts of the country. In Töfsala and Gustaf, where leprosy was formerly almost endemic, there is now not a single case. In Aland, where there was at one time a hospital devoted to lepers, there is now only one person with the disease. Most of the cases are of considerable standing; only a few are in the early stages. Isolation is not compulsory in Finland.

6. North America.—During the last fifty years very many Norwegians have immigrated into the Northwestern States of North America (Wisconsin, Iowa, and Minnesota). With them a good many lepers have come over from Norway. These have been registered and kept under observation by the State Board of Health. No further isolation than the use of their own beds and utensils is required, and this, as a rule, is readily carried out by the patients or their friends.

Dr. Hansen[6] visited America in 1888 to study leprosy in the immigrated Norwegians and their descendants. He found that out of about 160 lepers who had immigrated into the three States named only about 16 remained. Of these he saw 13. All the others were dead. Of all the descendants of the lepers, including the great-grandchildren of some of them, not a single one had developed leprosy. No case of leprosy had developed in any one born in the state, whether of Norwegian or other parents.

From the evidence brought forward in this section it appears that in Hawaii there was a rapid increase of leprosy until a few years ago, and that the present number of lepers at large is doubtful; that in Memel there

[1] Biennial Report of President of Board of Health, 1892, p. 41.
[2] Wiener klin. Wochenschr., 1892. No. 36.
[1] Om Loven af 6th Juni, 1885, angaaende Spedalskes Afsondring, 1893.
[2] Lancet, May 20, 1893, p. 1224.
[3] British Medical Journal, September 9, 1893, p. 594.
[4] Virchow's Archiv, Band cxiv., 1888.

has been a small development of leprosy in the last decade; that in Trinidad there has probably been, if anything, a slight decrease in the proportion of lepers to the general population; that in India there has been a marked absolute decrease; that in Norway there was a steady decrease long before compulsory segregation was thought of; that in Iceland and Finland the disease has become almost extinct without the help of isolation; and that in the Northwest States of North America, where leprosy was not endemic, the immigration of Norwegian lepers has not been attended with any prejudicial result to the rest of the community, nearly all the imported cases having died, and no new cases having occurred.

The limits of this paper are already reached, but did time and space permit, it could be shown that in most of the countries in which leprosy is endemic, the alleged recent increase of the disease either has not occurred or is far less than is commonly supposed.

The conclusions arrived at in the foregoing sections may be finally summed up as follows:

1. Leprosy is probably due to a bacillus, and theoretically we must admit the possibility of its inoculation.

2. The experimental inoculation of leprosy in man or animals has never succeeded beyond the possibility of doubt.

3. It has not been proved that vaccination has conveyed leprosy.

4. While practical experience points to a possible communication of the disease from one person to another, the weight of evidence shows that this must be extremely rare, and under very exceptional conditions.

5. Leprosy has steadily decreased in many countries without any attempt at compulsory segregation, while in other places it has increased in spite of isolation of lepers.

6. The immigration of lepers into leprosy-free countries has not in recent times been followed by any appreciable spread of the disease.

7. For practical purposes leprosy may be regarded as less dangerous to the community than tuberculosis, and as requiring no greater precautions than those taken against the spread of that disease.

THE USE OF STRYCHNINE AND PARALDEHYD IN ALCOHOLISM.[1]

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THAT the two great needs of patients suffering from alcoholism are sleep and food, and that of these two sleep is needed the more is, I think, generally conceded. Then the treatment must naturally have these ends in view. And although chloral hydrate, opium, bromides, veratrum viride, ammonia, alcohol, and quite a number of other drugs have been used and are still recommended in the treatment of alcoholism, from some observation and reading and a limited experience we think in strychnine and paraldehyd we have something not only quick to act and safe, but far more satisfactory in many ways than the older drugs. During a service as interne of an Eastern hospital we had charge of an alcoholic ward for six months. Here, with the approval of the visiting staff, we treated about fifty cases with these two drugs. Thirty of the fifty were very shaky, had exaggerated reflexes, and could eat or sleep very little if at all; thirteen more were delirious, and the remainder of a milder type. There were but two deaths—one, a woman, was in a state of coma when admitted and died two hours after admission; the other, a young man, seemed in no way affected by the treatment and died on the third day after entering the hospital. It was found necessary to strap down but three or four of the whole number, though several were kept in closed rooms and watched day and night.

Chloral hydrate, though used by some, has been found very unsatisfactory in the practice of many physicians, both because it is dangerous to the average alcoholic subject and because it often does not quiet the patient. We could name one hospital where, some years ago, there were two deaths but a few hours apart, due to the effects of this drug given for delirium tremens. Such instances, we think, are not very rare.

Professor William H. Thomson, of the University of the City of New York, recommends veratrum viride when the pulse is full and bounding, and so in danger of delirium or convulsions. He begins with a five-minim dose and repeats with a one-minim dose every hour until there is vomiting, or the pulse comes down. This we have seen used with good results in two cases, and have given it in two other cases where result was nil. We took the drug from the same bottle that had been used for the other two cases, so our failure could not have been due to the preparation. The cases, however, were not typical.

At the Bellevue Hospital Insane Pavilion, Dr. Fisher gives, in cases of acute mania, hyoscyamine, gr. $\frac{1}{60}$ hypodermically every four or six hours, until the patient is quiet. Here the results are certainly excellent, and we should think this drug might be very useful in delirium tremens, but have never seen it used. Being very expensive it would certainly have one recommendation, in common with the "gold cure," for alcoholism.

Several English authorities recommend ammonia in the treatment of alcoholism, showing how it takes the place of the alcohol and so keeps up the strength, etc. Nearly all physicians use bromide. Some to avoid the irritation of the bromide of potassium or ammonium give bromide of sodium only; others prefer equal parts of bromide of sodium, potassium, and ammonium. Aside from the danger of large doses the disturbance to the stomach and the diarrhœa following the use of bromides make quite a serious objection, especially when there is cirrhosis, as so frequently there is.

The use of strychnine for alcoholism has been advised by Loomis, Strümpell, and several others, some even claiming it has a specific action. Dr. Loomis said last year, in the course of one of his lectures at the University, that he had employed it in several severe cases with excellent results. He gave it with the needle, if the stomach was in bad condition, in doses of a twenty-fifth of a grain every four hours, and kept this up for two or three days if necessary to get the patient steady.

Of paraldehyd, Bartholow, in the last edition of his "Materia Medica and Therapeutics," says, "It has many of the qualities of chloral but none of its dangers. It does not paralyze the heart, for if given in lethal doses respiration stops first. In its action, first the cells of the cerebrum are affected, and sopor is induced without a preceding stage of excitement. Next to the cerebral hemispheres the medulla and then the cord are affected. The effect of paraldehyd is not so persistent as that of chloral, but frequent administration of the one can safely compensate for the greater power of the other." Bartholow further quotes a number of French authorities and says this drug has been used successfully in treatment of delirium tremens, also in strychnine poisoning. This last point shows that, to some extent at least, one of these drugs counteracts the effect of the other; an argument for the safety of giving both at the same time. Their use, we think, furnishes the argument for their efficiency.

Fresh air, sunshine, and cheerful surroundings without personal restraint are as wholesome to alcoholic patients as to any other, and perhaps more necessary than to some patients. The diet of these fifty cases was generally some preparation of milk at first, and this was given whenever the patient called for drink, and in such quantities as he would take. Other food was provided as soon as it could be digested. The bowels were moved daily, and the urine drawn or stupes applied if necessary. This often was necessary, for many of these patients could boast of several attacks of gonorrhœa and consequently strictures were the fashion. The following thirty cases are selected because they were of the more severe kind, and were under observation longer than the others. Twenty-four of these are nearly the same in many points, and so are tabulated:

[1] Read before the San Diego County Medical Society, October 6, 1893.

	Case.	Symptoms.	Other diseases coexisting.	Treatment.	Time.	Result.
I.	Brady	Trembling, exaggerated reflexes, and general irritability.	Mitral regurgitation	Strychnine sulphate, gr. $^1/_{25}$, every 4 hours (hypodermically).	3 days	Improved, and discharged by his request.
				Tinct. ferri chlor., ♏ x., every 4 hours.		
II.	McElvain	Trembling, exaggerated reflexes, and general irritability.	Subacute rheumatism	Strychnine, gr. $^1/_{25}$ (hypodermically)	1 day	Improved greatly.
				Sod. salicyl., gr. xxv., t. i. d.	16 days.	
				Strychnine, gr. $^1/_{32}$, every 4 hours	15 days.	
III.	Webber	Trembling, exaggerated reflexes, and general irritability "thinks he sees them."		Strychnine, gr. $^1/_{24}$, every 4 hours (hypodermically), if awake	2 days.	
				Paraldehyd, ʒ j., every 3 hours till asleep	2 days.	Improved greatly.
				Bromid. and nux. vom. mist., ʒ ss., every 4 hours.[1]	10 days.	
IV.	Layland	Trembling, exaggerated reflexes, and general irritability: can neither eat nor sleep.		Strychnine, gr. $^1/_{25}$, every 4 hours (hypodermically) if awake.	3 days.	
				Strychnine, gr. $^1/_{32}$, every 4 hours	1 day.	
				Paraldehyd, ʒ j., every 2 hours till asleep	3 days.	Improved greatly.
V.	O'Neil	Very nervous and could not sleep.		Paraldehyd, ʒ j., every 3 hours till asleep.		
				Strychnine, gr. $^1/_{32}$, every 4 hours	5 days.	Improved greatly.
VI.	Young	Nervous: cannot eat nor sleep		Paraldehyd, ʒ j., every 2 hours.		
				Strychnine, gr. $^1/_{25}$, every 4 hours (hypodermically).	4 days.	Improved greatly.
VII.	Crogan	Nervous: cannot eat nor sleep	Mitral regurgitation and aortic stenosis.	Paraldehyd, ʒ j., every 4 hours	5 days.	
				Strychnine, gr. $^1/_{32}$, every 4 hours	11 days	Improved greatly.
VIII.	Devine	Nervous: cannot eat nor sleep	Cerebral congestion	Mist. bromid., grs. xx., every 4 hours, er got, ice, etc.[2]	3 days.	
				Strychnine, gr. $^1/_{32}$, every 4 hours	9 days	Improved greatly.
				Tinct. cinch. co., ʒ ss., t. i. d.	9 days	
IX.	Cullen	Nervous; cannot eat nor sleep	Acute bronchitis: subacute gastritis.	Ammon. chlor. mist., bismuth and pepsin.		
				Strychnine, gr. $^1/_{32}$, every 4 hours.		
				Paraldehyd, ʒ j., every 2 hours	1 day.	
				Sulfonal, grs. xxx., daily	3 days	Improved greatly.
X.	Bridge	Nervous: cannot eat nor sleep	Opium poisoning (acute)	Stomach-pump, caffeine, etc.		
				Strychnine, gr. $^1/_{25}$, every 4 hours (hypodermically).	5 days.	
				Strychnine, gr. $^1/_{25}$, every 4 hours	5 days.	
				Paraldehyd, ʒ j., every 2 hours	5 doses.	Improved greatly.
				Tinct. cinch. co., ʒ ss., t. i. d.	5 days.	
XI.	McGovern	Nervous: cannot eat nor sleep	Bronchitis	Strychnine, gr. $^1/_{25}$, every 4 hours (hypodermically).		
				Paraldehyd, ʒ j., every 4 hours	2 days	Improved greatly.
XII.	Barker	Nervous: cannot eat nor sleep	Bronchitis (?)	Paraldehyd, ʒ j., every 2 hours.		
				Strychnine, gr. $^1/_{25}$, every 4 hours (hypodermically).	2 days	Improved greatly.
XIII.	Evans	Nervous: cannot eat nor sleep	Otitis media	Inflation, borac. acid, etc.		
				Strychnine, gr. $^1/_{25}$, every 4 hours (hypodermically).	2 days.	
				Strychnine, gr. $^1/_{30}$, every 4 hours	18 days	Improved greatly.
XIV.	Turner	Nervous: cannot eat nor sleep		Strychnine, gr. $^1/_{60}$, every 4 hours (hypodermically).	2 days.	
				Strychnine, gr. $^1/_{32}$, every 4 hours	7 days.	
				Paraldehyd, ʒ j., every 2 hours	2 days.	
				Bromid. mist., grs. xxx., every 2 hours	2 days	Improved greatly.
XV.	Decker	Nervous: cannot eat nor sleep	Chronic interstitial nephritis, gastritis, rheumatism, etc.	Sod. salicyl., ammon. iod., etc.		
				Strychnine, gr. $^1/_{32}$, every 4 hours (hypodermically).	4 days.	
				Paraldehyd, ʒ j., every 2 hours, etc	4 days	Improved greatly.
XVI.	Murray	Nervous: cannot eat nor sleep		Paraldehyd, ʒ j., every 2 hours	2 days.	
				Strychnine, gr. $^1/_{24}$, every 4 hours (hypodermically).	2 days	Improved greatly.
				Strychnine, gr. $^1/_{32}$, every 4 hours	3 days.	
XVII.	O'Neil[3]	Nervous, etc., as the others		Bromid. and nux. vom. mist. (see Note 1	10 days	Improved greatly.
				ʒ ss., t. i. d.		
XVIII.	McEwen[3]	Nervous, etc., as the others		Bromid. and nux. vom. mist., every 4 hours alternating with mist. bromid. (see Note 2), grs. xxx., every 8 hours.	9 days	Improved greatly.
XIX.	Kehoe	Delirious		Strychnine, gr. $^1/_{25}$, every 4 hours (hypodermically).	2 days.	
				Paraldehyd, ʒ j., every 4 hours	2 days.	
				Strychnine, gr. $^1/_{32}$, every 4 hours	2 days	Improved greatly.
XX.	Vorhagen	Delirious; became rational; stopped strychnine and delirium returned.		Paraldehyd, ʒ j., every 4 hours	2 days.	
				Strychnine, gr. $^1/_{24}$, every 4 hours (hypodermically).	2 days.	
				Strychnine, gr. $^1/_{32}$, every 4 hours	1 day.	
				Sod. bromid., grs. xxx., every 2 hours	4 days	Improved greatly.
XXI.	Kennedy	Delirium, etc		Paraldehyd, ʒ j., every 2 hours	4 days.	
				Strychnine, gr. $^1/_{25}$, every 4 hours (hypodermically).	4 days.	
				Spr. frumenti, ʒ ss., every 2 hours	3 days.	
				Mist. bromid., grs. xxx., every 2 hours	3 days.	
				Sod. bromid., grs. xxx.	4 days	Improved greatly.
				Strychnine, gr. $^1/_{32}$, every 4 hours	4 days.	
XXII.	McGuire	Delirium, etc	Lobular pneumonia, etc	Tinct. aconite, ♏ j., every hour till pulse came down; later, digitalis, ammon. chlor., etc.		
				Paraldehyd, ʒ j., every 3 hours	1 day.	
				Strychnine, gr. $^1/_{60}$, every 4 hours (hypodermically).	3 days.	
				Sod. bromid. grs. xxx., every 2 hours	2 days	Improved greatly.
XXIII.	Stagg	Delirium, etc	Acute bronchitis	Paraldehyd, ʒ j., every 2 hours.		
				Strychnine, gr. $^1/_{25}$, every 4 hours (hypodermically).	2 days.	
				Strychnine, gr. $^1/_{32}$, every 4 hours	8 days	Improved greatly.
XXIV.	Bowman	Vertigo; delirious, etc.[4]		Bromid. mist., gr. xxx., every 2 hours	1 day	Grew worse.
				Applied straps.		
				Paraldehyd, ʒ j., every 2 hours	1 day	Improved greatly.
				Strychnine, gr. $^1/_{24}$, every 4 hours (hypodermically)	1 day.	
XXV.	Mrs. Judd	Delirium, etc		Strychnine, gr. $^1/_{25}$, every 4 hours (hypodermically).	2 days.	
				Paraldehyd, ʒ j., every 2 hours	2 days	Improved greatly.
XXVI.	Burns	Delirium, etc		Strychnine gr. $^1/_{32}$, every 4 hours.		
				Mist. bromid., gr. xxx., every 4 hours	6 days	Improved greatly.

[1] R. Potass. bromid., gr. xv.; Tinct. nux. vom., ♏ x.; Sps. ammon. aromat., ʒ j.; Tinct. capsici, ♏ xv.; Tinct. cinch. co., q. s. ad. ʒ ss.

[2] R. Kal. bromid., natrii bromid., amm. bromid., āā; in aquam.

[3] These two cases had no strychnine or paraldehyd.

[4] Under treatment slept 1 day and 2 nights.

Some Exceptional Cases.—CASE XXV.—A. W——, aged twenty-five, had been drinking heavily for some time; fell in street, and when brought in had two or three slight cuts and abrasions about face, one being across the nose. Had mitral regurgitation and hypertrophy of left ventricle. Had vertigo and saw double, and floating bodies; a general tremor, rigors, and vomited a greenish fluid. Stopped vomiting by wine of ipecac., ♏ j., every hour. Was now delirious. Gave strychnine, gr. $^1/_{24}$, every four hours (hypodermically), and paraldehyd, ʒ j., every four hours. Later gave mist. bromid., gr. xxx., every four hours. Pulse became weaker, and

gave aromatic spirits of ammonia and brandy. None of the medicines produced any effect, and on the third day temperature[1] went up to 106.2° F. and he died. It was thought at the time that there was no cerebral injury, but as there was no autopsy this is somewhat doubtful. The heart lesion may have played an important part in this case, but the history pointed strongly to alcoholism as the most important factor. He did not sleep at all, but the delirium was not of the violent sort.

Case XXVI.—M. L——, had had convulsions and pulse was now 105, full and hard. Gave veratrum viride, ♏v., one dose, and ♏j. every hour during night, with no result except he had no convulsion. He was quite delirious, but not violent. Temperature, 100.3° F.; respiration, 29. Gave paraldehyd, ʒ ij., every three hours, and strychnine, gr. $\frac{1}{30}$, every four hours (hypodermically); no result. Then for a few days gave chloral hydrate, grs. x., mist. bromid., grs. xxx., every four hours; no result. Now gave morphine sulph., gr. $\frac{1}{4}$, every three hours, and applied strait-jacket, but there was no improvement. Dull pain in hands and arms. Finally, under Dover's powder and bromides, sleep was secured, but when awake the delirium returned. Now gave potass. iodid., grs. x., gradually increased to grs. l., every four hours, and cod-liver oil, t.i.d. After thirty days he became rational and remained so. This was thought to be a sort of pachymeningitis, due to alcoholism.

Following is a case of exceptional, though accidental, treatment:

Case XXVII.—A. K——, had been out of the hospital on leave for the day and returned intoxicated. He had taken now by mistake a mixture containing tincture of aconite, ʒ ij.; tincture of belladonna, ♏xv.; tincture of cimifuga, ♏xv., and wine of colchicum, ♏xlv. About one hour later this was discovered. He was in good condition, except, of course, intoxicated; pulse was full, rapid, and rather incompressible. A part of the stomach contents was now removed by the pump, but it was impossible to wash out the stomach properly, and tartar emetic, grs. ij., was given. This did not operate for about two hours, but the pulse continued rapid and strong, and patient was very violent. Later whiskey and digitalis were given, p.r.n. The patient went out next day in good condition, and was not seen for some weeks, when he returned intoxicated.

Case XXVIII.—M——, came in with severe hemorrhages from the stomach. Treated with ice, opium, etc., and fed by rectum. After two days he suddenly developed delirium, and jumped from the window to ground, a distance of about twenty feet. He received no injury of any account. Was kept in bed with some little difficulty and given hypodermics of strychnine, gr. $\frac{1}{30}$, every four hours, and paraldehyd, ʒ j., or sodium bromide, grs. xv., every two hours, when awake, for four days. Now gave the strychnine, gr. $\frac{1}{32}$, by stomach for six days. Discharged in good condition.

Case XXIX.—H——, while delirious had wandered from home and laid out all night. Right hand was frozen. He was unconscious. Temperature, 91° F. (per rectum); respiration, 15. Was put in warm bath and regained consciousness. Two hours later temperature the same. Six hours later, 97.2° F., and ten hours later 100.3° F. It soon became normal and remained so. Treatment: External heat, aromatic spirits of ammonia, tincture of capsicum and whiskey, also injections of strychnine, gr. $\frac{1}{15}$, every four hours for two days. He developed bronchitis, but was taken home on second or third day in good condition.

Case XXX.—S——; very nervous; had been exposed to cold, and temperature was 94° F., per rectum. Applied heat and gave aromatic spirits of ammonia and tincture of capsicum. Ten hours later temperature was 100.4° F. Gave the bromide and nux vomica mixture, and he became delirious. Now gave paraldehyd, ʒ j., alternating with bromides, ʒ j. Also tincture of ferri chlor., ♏xv., t.i.d. Discharged in good condition after seventeen days.

In all of the foregoing cases the alcoholic element is believed to have been the predominating one. In some of them co-existing diseases are mentioned because they called for treatment or modified the symptoms of the alcoholism. Many had chronic nephritis or cirrhosis of the liver, or some valvular lesion of the heart, for nearly all these people had been hard drinkers for years.

In several cases not reported here strychnine and paraldehyd were given as a part of the general treatment for alcoholic patients suffering from phthisis or pneumonia, and the result was beneficial.

We were usually cautious about giving these drugs when there was advanced disease of the heart. But in other cases the paraldehyd was given generally every two hours till the patient was asleep. This means that about two or three drachms were given a day, though sometimes five or six were necessary, and in one or two cases it was given in two-drachm doses repeated every three hours till three or four doses had been given. The strychnine was given hypodermically generally and in doses of a fiftieth to a twenty-fourth of a grain while the patient was awake, and for three or four days. Then the strychnine was given by the stomach and the paraldehyd at night only. Patients were allowed to sleep from twenty-four to thirty-six hours, being aroused only for nourishment, etc. After four days the paraldehyd was often replaced by bromides or sulfonal, grs. xxx.

It will be observed that in two or three of these cases strychnine and paraldehyd were not given, but the nux vomica and bromide mixture (note 1, page 712). This was often given after three or four days and when the symptoms were not so severe.

Cod liver oil, iron, pepsin, etc., were often used, for most of these patients had not been as much used to food as they had been to cold and wet weather, and consequently were quite anæmic, had gastritis, rheumatism, and many other complaints.

Opium, it will be seen, was given but once when there seemed to be some pachymeningitis, and here, strange to say, it appeared to be of some use. Alcohol was used but two or three times, *i.e.*, when the heart was very weak.

Most of these patients on entering the hospital were tormented by the thirst for alcohol, but many on leaving said they had no desire for it, and we know did not go back to their old habits at once. A few of those that could be followed we know abstained for some months, but at this date it is impossible to say if any experienced what is called "a cure."

A Dramatic Suicide.—For novelties in the line of self-destruction France has long enjoyed an unchallenged reputation. The latest reported suicide of this character took place a few weeks ago, during the visit of the Russian naval officers to Paris. While the train conveying the foreign guests to Versailles was crossing the Seine a young woman stood on a parallel bridge waving French and Russian flags, and shouting, "I see and I die. Long live Russia!" she jumped into the river and was drowned. When her body was recovered it was found that she was clothed only in garments made out of French and Russian flags.

[1] In most of the tabulated cases there was little rise in temperature, and this is, I think, the rule where there are no complications and where there is not a fatal issue. In the following case the rise of temperature was probably due to septicæmia.

A. G——, had been suffering from delirium tremens two or three days when he shot himself in left chest. (This case was not in my service and I do not know the treatment.) The delirium became more violent; on third day temperature was 105° F., and it continued to rise, till the fourth day it reached 112° F. and death resulted.

Autopsy, twenty-four hours after death. There was no rigor mortis. Great discoloration. No noticeable change about the wound. Decomposition had set in. Blood, black and thin; heart, empty; lungs, congested and pleura thickened about wound; kidneys, possibly fatty; brain, partly decomposed. Bullet had passed through seventh rib, the pleura, diaphragm, and partly through the muscular coat of the stomach, where it was found.

GASTROSTOMY IN STRICTURE OF THE OESOPHAGUS.[1]

By H. D. NILES, M.D.,

SALT LAKE CITY, UTAH.

On account of the comparative rarity of the operation, and from the fact that the more recent modifications in the views of leading surgeons regarding it, are not yet incorporated in the text-books of surgery in common use, it is hoped that the account of the following cases, coupled with a brief review of the past and present state of the operation and the conditions which give rise to it, may not prove uninteresting. If the interchange of ideas which the introduction of this subject may elicit shall result in any or all of us being better prepared to meet these grave emergencies when they arise in our practice, the object of this paper will have been attained.

Mrs. B——, sent in from a neighboring city, aged sixty-nine, for the past year had been distressed with symptoms which she and her friends attributed to some form of "dyspepsia." She suffered but little localized pain, but swallowing was accomplished with some difficulty, followed by distress along the whole length of the gullet and later by rejection of a whole or part of what she had eaten. She said that many times the food seemed to lodge at a point just back of the lower part of the thyroid gland. During the thirty days preceding her coming to this city her local symptoms and consequent loss of strength became alarming. She was able to take only liquid food, and it is probable that only a small proportion of this reached the stomach. I first examined her February 21st. She was confined to her bed, very much emaciated and apparently receiving no nourishment by the mouth. Pulse 80, regular and weak; heart normal; temperature, 98° F.; urine normal except a specific gravity of 1032. She was suffering no acute pain, but was very weak and physically and mentally depressed from lack of nourishment. She said that she was hungry all of the time. A medium-sized œsophageal bougie passed easily to eleven inches from the incisors, but the smallest instrument could not be coaxed further; and apparently at that time absolutely no fluid penetrated beyond the stricture. The occlusion seemed complete. Could obtain no history, family or personal, favoring the probability of the obstruction being due to malignant or specific disease. Trauma could be excluded. Physical examination failed to reveal the presence of a tumor or aneurism that might press upon the œsophagus. Her age of course pointed strongly to malignancy, but there had never been a trace of blood from the parts, no localized pain, and no pus could be noticed on the bougies after their withdrawal.

The history of the case given somewhat in detail is not different from that which many or all of you have studied in your own practice. A patient dying a horrible death from slow starvation probably due to an epithelioma which had not yet commenced to ulcerate, or possibly to fibrous thickening of the walls of the œsophagus. What treatment can we recommend in such cases? If the occlusion was not complete, the introduction of food into the stomach through a catheter, or dilatation of the stricture with sounds, or by some of the newer ingenious methods, or linear electrolysis, or œsophagotomy might be considered. But in a case like the foregoing, one must decide upon one of three courses:

1. We may relinquish the case as entirely beyond our skill to mitigate the sufferings or effect a cure. To deprive any sane patient under any circumstances of every vestige of hope is certainly the last course to be adopted.

2. We may confine ourselves to a strictly palliative treatment, keeping the patient's strength up as long as possible by rectal enemas, and quieting her sufferings with sedatives while we and she wait for death.

3. The establishment of a gastric fistula through which nourishment can be introduced, and the patient sustained while complete rest of the parts might stay the progress of the disease and even permit sufficient dilatation by retrograde catheterization to allow food to be taken in time by natural channels.

[1] Read before the Salt Lake City Medical Society.

Against the latter course was, first, the high mortality which the statistics show attend these operations; second, at best it was likely to prove only palliative. In favor of it was first the doubtful possibility of the stricture proving to be benign; even if malignant life might be prolonged some months; and lastly, should the operation prove a failure in both of these respects, she would at least escape the horrors of a death by starvation.

I concluded not to urge or even advise the operation; but after a full explanation to the patient and her friends to leave the decision entirely to them. In accordance with their desire the operation was performed with the assistance of Doctors Maclean, Root, and Witcher, on February 21st. Chloroform was the anæsthetic selected, and the usual antiseptic precautions were observed.

Fenger's incision was made and the stomach secured after some difficulty, for it was collapsed and lying at least five inches from the wound. It was held by two tenaculi while fine silk sutures were used to stitch it to the edge of the abdominal wound, the peritoneal surfaces being carefully apposed.

Notwithstanding the patient's age, weakened condition, and the length of time she was under the anæsthetic, she rallied well and quickly, and for the succeeding five days the temperature did not reach 100°, or the pulse get above 90; nor were there any indications of peritonitis. On the morning of the 24th (seventy-two hours after the operation) the stomach being completely and pretty firmly adherent to the abdominal wound, an incision was made of sufficient size to admit a small rubber tube, and the transfixing needles were removed.

About three ounces of hot peptonized milk was introduced by means of a funnel attached to the tube. From this time until the 27th, small quantities of peptonized milk and beef tea was given through the tube. The stomach would only tolerate a certain amount, when nausea supervened. In the meantime this nourishment was supplemented by nutritious enemas. On the morning of the 27th she showed signs of sinking, and died of exhaustion that night. An autopsy could not be obtained.

Fifty six years ago, Egebert, a Norwegian surgeon, recommended this operation for stricture of the œsophagus, but to Sedillot is due the credit of having first performed it on a human being. This operation was done in 1849, upon a man dying of cancerous stricture, with a fatal result in twenty-four hours. In 1853 both Sedillot and Fenger operated, with fatal results. In 1858 and 1859 Cooper Forster, and in 1866 Bryant and Curling, each operated; all of these gastrostomies were unsuccessful. In spite of these failures, the operation found a few good men who believed it to be a proper procedure in appropriate cases, and had the courage to undertake it. But it was not until 1874 that a single success was achieved, when Sidney Jones, of St. Thomas's Hospital, performed his third operation.

This most encouraging result, occurring as it did almost coincident with the introduction of antiseptics into surgery, gave new hope, and while gastrostomy has not kept pace with other abdominal operations in their success and rapid advancement in professional favor, it nevertheless, at the present time has an assured position among legitimate measures of surgical relief.

J. Greig Smith, in his new, admirable work on "Abdominal Surgery," says: "The actual conditions for which the operation may be performed, are the following:

"1, Cancerous stricture of the œsophagus; 2, cicatricial contraction of the œsophagus; 3, obstruction, by pressure, of growths outside the œsophagus; 4, malignant disease of the pharynx or the mouth; 5, ulcerative, chemical or traumatic destruction of the walls of the œsophagus; 6, congenital closure of the œsophagus."

He further states: "In a cancerous case I am of the opinion that considerable weight ought to be given to

the desire of the patient after an honest, impartial statement of the possible and probable results have been put before him."

Bryant writes in 1885: "That though in the fifty or sixty cases in which gastrostomy has been undertaken for cancer, life has never been prolonged for more than six months, the relief it has afforded to those who have been subjected to it is sufficient to prove that it is based upon a sound principle and a humane practice; the operation having been undertaken more with a view of mitigating the horrors of a death from hunger and thirst, and of prolonging what remained of life, than from any curative object. I am free to acknowledge that the advantages given by the operation are worth the risk."

Eichorst and Dujardin both speak in favor of the operation in malignant disease of the gullet. Gerster records six cases, one of which lived thirty-two days. We would infer that he would employ it as a *dernier ressort*. Moulin would only resort to gastrostomy in a few exceptional cases. He favors Symond's method of permanent tubage. Of course this could only be applicable to permeable strictures. Erichsen and the late Dr. Hayes Agnew never modified their earlier conservative opinions of the value of gastrostomy in malignant stricture. Wyeth says: "When the occlusion is so complete that the œsophagotome cannot be employed, or if from any reason this method of procedure is contraindicated, and inanition is threatened, the operation of gastrostomy is imperative."

In the new American Text-book of Surgery is found; "A resort to this operation is indicated in cases of malignant or cicatricial stenosis of the œsophagus or cardiac orifice of the stomach advanced to such an extent that the introduction of food *per viam naturalem*, or by the use of tubes, is no longer possible." "The results of this operation in malignant disease have thus far not proved very satisfactory, as it has seldom been performed before the patient had reached an extreme degree of marasmus, which in itself proved the greatest source of danger." (Why wait, then, until tubage is no longer possible, and the patient so much reduced?)

Jacobson writes: "I have performed gastrostomy seven times, in each case for cancer of the œsophagus; in three patients the operation was asked for too late; in one, my seventh case, the patient died from an accident for which I am responsible; the other three recovered well. One, a young married woman, had had symptoms six months; she was in the fourth month of pregnancy when operated on; she lived in comfort for six months and died, a month after giving birth to a child at the full time, of extension to the lung. Another patient lived between three and four months, and would have survived longer if it had not been for his carelessness as to exposure. A third was alive and progressing satisfactorily when last heard of four or five months after the operation."

Such in brief has been the history of gastrostomy and the views regarding it of a few of our leading surgeons. All admit its frequent utility in non-malignant stricture, and a very small minority only are willing to relinquish the hope that it may prove useful as a means of mitigating the sufferings and prolonging the life of one dying of starvation from cancerous stricture of the œsophagus. Still it must be admitted that it is rarely undertaken except as a *dernier ressort*. Abdominal section for the removal of an ovarian cyst, or a gangrenous vermiform appendix or for intestinal obstruction or in cholecystotomy was a few years since reserved until every other means had failed and the patient's strength was exhausted. A high mortality followed and these operations were condemned by the laity and some of our ablest surgeons as being but little better than murder. To-day it is known that the danger incident to opening the abdominal cavity under proper antiseptic precautions is comparatively slight and thousands of lives have been saved by these operations that under the old "wait and hope" system of treatment would have been sacrificed.

This has largely been brought about by early diagnosis and prompt operative interference when needful. While it cannot be claimed that gastrostomy, especially when performed for malignant stricture, is ever likely to have as wide a field of usefulness as any of the operations referred to, the exercise of the same precision in diagnosis and promptness in operating that lowered the mortality and brought these operations into such repute, would unquestionably exert a somewhat similar influence on gastrostomy.

An inquiry into the causes of death in quite a large number of cases of gastrostomy leads me to believe that not less than seventy-five per cent. are due either to shock or to a peritonitis lighted up by the escape of the contents of the stomach into the peritoneal cavity. If this be true an operation before the patient's health is greatly impaired would immeasurably lessen the first danger, and by giving a longer time to assure ourselves of the completeness and firmness of the union between the stomach and the walls of the abdomen, prevent the latter. With these two dangers eliminated should not gastrostomy be the first choice instead of the last in the treatment of some of the conditions producing œsophageal stricture?

For example: as soon as we are positive that we have to deal with cancerous disease or ulcerative destruction of the œsophagus, would it not be in accordance with the laws of good surgery to relieve the parts of the irritation produced by swallowing and the presence of food, and to forego the use of sounds, bougies, and tubes and by gastrostomy afford that complete rest to the parts that we would insist upon were the disease located elsewhere? and should other operative measures or local medication be decided upon, would they not be more effectual if the patient's general health was well sustained by nourishment through the gastric fistula and the local disease kept free from all sources of irritation?

These questions I beg to submit for your consideration and discussion this evening. For myself I have no hesitation in expressing my convictions that while the framing of fixed rules for our guidance must wait upon that perfection in our diagnostic methods that shall enable us to recognize early and predict with certainty the progress, suffering, and termination of the disease without operative interference, that that day is already here in some cases and not very distant in others, and with it the time when gastrostomy should sometimes be the first choice of treatment instead of the "*dernier ressort*" that it now is.

A Wonderful Discovery by a Berlin Dermatologist.—Dr. Lassar, who may be remembered as the secretary of the International Medical Congress in 1890, proclaims that he has discovered a cure for malignant neoplasms of the skin. His remedy is arsenic, which he would appear to think has never been used before. Commenting upon this brilliant discovery, the *Medical Press* says: "It is surprising that one holding a position like Lassar should be so seemingly ignorant of the use of arsenic. He first shows a few cases to the Berlin Medical Society as interesting, which, through courtesy to his former position, are admitted without criticism. In the *Wochenschrift*, a few days later, appears a lengthy account of three cases magically cured of cutaneous cancer by the use of arsenic. The paper tacitly assumes these to be the first of their kind where healing has been accomplished, except in the case of Fehleisen, who inoculated the neoplasm with erysipelatous virus, but excited the suspicion that the curative agent was more fatally active than the original growth. Histories and photographs are given of this latest arsenic success in the *Wochenschrift;* abstracts are taken promptly by the German Medical Puffing Agency and pressed upon the notice of the many guileless editors, who, anxious to be first with things apparently novel and startling, are betrayed into hurrying before their readers some elementary antiquity more ridiculous than could be imagined to emanate from the mind of the late secretary of an International Congress."

CEREBRAL HEMORRHAGE ASSOCIATED WITH NARROWING OF AORTA.

By CHARLES E. NAMMACK, M.D.,

VISITING PHYSICIAN GOUVERNEUR HOSPITAL; ATTENDING PHYSICIAN NEW YORK HOSPITAL, OUT-PATIENT DEPARTMENT.

The ambulance was summoned from Gouverneur Hospital to a lodging-house on September 20, 1893, and the surgeon found there a young man of whose previous history nothing could be learned, except that he had fallen to the floor, unconscious, ten minutes before. He was brought to the hospital, and, on admission, found to be in complete apoplectic coma, with the following symptoms: Face, pale; skin, cold and clammy; pulse, strong, regular, and rapid; stertor, absent; vomiting, absent; pupils, dilated equally, and immobile; convulsions, absent; hemiplegia, present on left side. The heart-apex beat was outside the nipple line; cardiac impulse, strong; endocardial murmurs heard at both mitral and aortic orifices. The apparent age of patient was twenty-two.

The case was thought to be a beautiful illustration of cerebral embolism, and the attention of the house staff was called to the differential points in favor of this diagnosis and against cerebral hemorrhage. The patient died two hours after admission, and the autopsy proved the correctness of the late Dr. Austin Flint's statement[1] that the physician who ventures upon a positive diagnosis in apoplexy incurs a risk of being convicted of an error at the autopsy. An extensive pial hemorrhage was found. For further examination and study the brain, heart, aorta, kidneys, and spleen were taken to the pathological laboratory of the New York Hospital. The pathologists, Drs. Frank Ferguson and George P. Biggs, very kindly examined the specimens for me, and Dr. Ferguson furnishes the following report: Brain: The convolutions are flattened. There is a hemorrhage in the meshes of pia, generally distributed over the base, but especially abundant over the pons and along the course of the right middle cerebral artery and its branches. There is a hemorrhage in the interior, size of a pullet's egg, situated external to the right corpus striatum and continuous with the hemorrhage in the meshes of the pia in right Sylvian fissure. The hemorrhage in the interior of the brain is peculiar in that the clot is oval and its exterior smooth. The brain tissue limiting the clot is also smooth and does not present the ragged-edged appearance of an ordinary apoplexy. The vessels leading to the clot were carefully examined, but no gross lesion was detected. The heart is normal in size. The left ventricle is dilated and the endocardium thickened. There are low vegetations on the auricular surface of the mitral valve, but the capacity of the valve is normal, and it appears competent. The cusps of the aortic valve are thickened, and one of them is notably retracted. The aorta is small, measuring, when laid open, 5¼ ctm. above the aortic cusps; the thoracic aorta measures 4 ctm., the abdominal aorta, above the superior mesenteric, 3½, and just above the iliac bifurcation, 2½ ctm. Its wall appears normal. The kidneys, to the unaided eye, appear normal. The spleen shows great hypertrophy of the Malpighian bodies.

Microscopically, the brain is found to be the seat of very numerous minute hemorrhages, many of which follow the course of the vessels. The perivascular spaces are very generally filled with blood. The vessels of the pia and the branches which pass down into the cortex contain large numbers of small round cells; their walls are the seat of vast numbers of these cells, and in one of the branches of the middle cerebral artery there is a thrombus which appears to be extensively composed of these small round cells. The pia is everywhere infiltrated with them. There are numerous small hemorrhages in the pia at distant points from the large hemorrhage at the base already described. The kidneys show numerous areas of small round cells and some of the tufts are solid globes of fibrous tissue. The spleen shows simple hypertrophy of the Malpighian tufts and intense hyperæmia.

[1] Flint's Practice, 6th edition, p. 656.

It will be seen from Dr. Ferguson's report that the pathological condition was that of arteritis syphilitica, and that this condition, rather than the narrowing of the aorta, was the efficient cause of the hemorrhage.

Aside from the fallacy of the bedside diagnosis the case is of considerable interest on account of the small aorta. Dr. Ferguson presented a similar case at the meeting of the New York Pathological Society, May 14, 1884,[1] in which cerebral hemorrhage, independent of disease of the vessels, existed. He informs me that he has seen other cases, and that Virchow's museum, in Berlin, contains a collection of seventeen specimens. Dr. H. N. Heinemann has also put on record a case[2] presented at the Pathological Society's meeting of September 22, 1886, and in the discussion a case of Dr. George L. Peabody's is mentioned. This last case is published in the "Transactions of the Association of American Physicians," 1891, p. 169. Leyden[3] records a case in which autopsy showed hypertrophy and dilatation of the heart, stenosis of aorta, and embolism of the artery of the fissure of Sylvius. Fraentzel[4] publishes one case, thirty-four years of age, death from cyanosis and dyspnœa, no mention of cerebral hemorrhage. Also a case, twenty eight years of age, death from pulmonary tuberculosis, no cerebral hemorrhage recorded. Kuessler[5] has two cases in young adults, in each of which the aorta would only admit the little finger, but the condition of the brain is not recorded in either. Loriga[6] presents two cases of narrow aorta. Autopsy in one showed cause of death to be croupous pneumonia. Eppinger[7] brings forward a case of cerebral hemorrhage in a young man, associated with narrow aorta, and tabulates forty-two cases of stenosed aorta, in which cerebral hemorrhage appears only once as the cause of death. A later writer, Kriegk,[8] gives marasmus as the cause of death in this same case. The patient was a male, aged ninety-two. Kriegk reports three cases of his own, in one of which, a boy, aged eleven, autopsy showed cerebral hemorrhage. He also tabulates the cases to date, fifty-six in number, and gives cerebral hemorrhage as the cause of death in but three, viz., his own, Eppinger's, and Ermann's. The case of Ermann[9] showed embolism of the right internal carotid and cerebral softening. In a second case of Kriegk's,[10] occurring in a woman, aged twenty eight, death resulted from apoplexy, and a softening was found in the left hemisphere with a fresh apoplectic focus in the right.

Although the number of cases of narrowing of the aorta is comparatively large, in but few has cerebral hemorrhage been associated, and it is difficult to draw conclusions as to the causative influence of one condition upon the other. Authors of text-books upon diseases of the nervous system, at least those with which the writer is familiar, do not mention anomalies of the aorta in the etiology of cerebral hemorrhage; with the exception of Dana[11] the general opinion seems to be that a diseased or weakened arterial wall is the essential local factor in producing cerebral hemorrhage.

For assistance in abstracting the foreign literature of the subject, the writer is indebted to Dr. Boleslaw Lapowski, of the New York Hospital staff.

29 EAST TWENTY-FOURTH STREET, November 1, 1893.

Pharyngitis sicca, atrophic nasal catarrh, anæmia accompanying tertiary syphilis, are sometimes greatly improved, indeed to a degree far greater than it has been in my hands possible with any other agent, by small doses of Fowler's solution.—ALLEN.

[1] MEDICAL RECORD, xxv., 652.
[2] Ibid., xxx., 442.
[3] Charité Annual, Berlin, 1887, 151–157.
[4] Deutsche Med. Wochenschrift, 1888, 589–591.
[5] Berlin. klin. Wochenschrift, 1879, 20–22.
[6] Rivista Clinica Bologna, 1887, No. 8.
[7] Prager Vierteljahresschrift, cxii., 1871.
[8] Ibid., 1878, vol. i.
[9] Berlin. klin. Wochenschrift, x., 19, 1873.
[10] Virchow-Hirsch's Jahresbericht, 1878, ii., 191–192.
[11] Text-book of Nervous Diseases, p. 354. William Wood & Co. 1892.

A SIMPLE METHOD OF CLOSING LARGE OPERATION WOUNDS BY SLIDING SKIN-FLAPS.

By GEORGE F. SHRADY, M.D.,

SURGEON TO ST. FRANCIS HOSPITAL, NEW YORK.

Having often experienced difficulty in closing the large gaps in those cases, more especially of cancer of the breast, in which extensive removal of integuments has been necessary, and having tried many methods, I merely wish to offer the following as giving me the greatest satisfaction.

It may be considered, to some extent, a modification of the sliding curved flap used in cheiloplasty. If we take an extreme case in which there is an elliptically shaped wound with edges otherwise impossible of approximation, we have a condition to which this method is well adapted. A straight incision is made at right angles to the short axis of the ellipse, and at a suitable distance is terminated by two sweeping, well rounded, curves which diverge in opposite directions. They then resemble in contour the outlines of the buttocks. The same flaps may be made, if necessary, in a reverse direction on the corresponding opposite side of the gap. When these flaps are loosened from their bases throughout their whole extent, their free edges easily slide toward each other along the lines of the curves and are brought together with sutures, thus closing the entire wound by converting the long axis of the ellipse into a straight line.

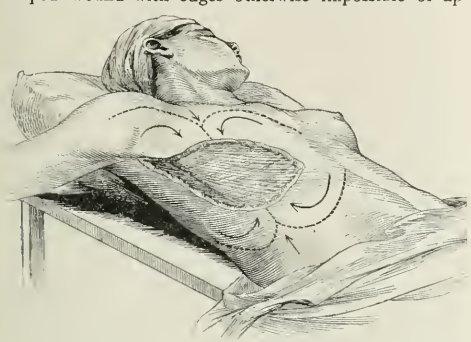

Fig. 1.

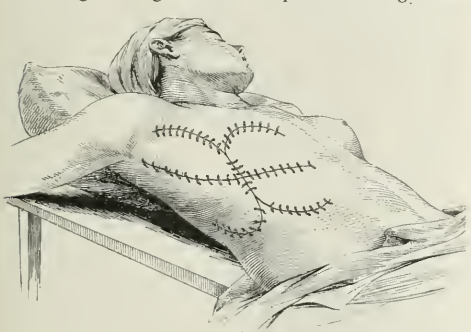

Fig. 2.

This can be made plainer by reference to the accompanying illustrations (Figs. 1 and 2). By this procedure, what might otherwise be a bare surface left for tedious granulation, is covered by healthy integument, the suture lines of which heal by first intention. Care must be taken in forming the flaps, that their tissues are of uniform thickness throughout, that the blood-supply at their bases is not jeopardized, and that all tension is avoided. Very frequently but one set of flaps will be required. The objection may be raised that an extensive dissection is oftentimes required to liberate the flaps, but this is overcome by the fact that in the end a complete natural skin-covering is obtained, and the excessive formation of cicatricial tissue is prevented.

The triangular-tongued flaps at the points of intersection of the curves may be more or less loosened to allow of better adaptation to the spreading curves of the main flaps as they are brought into position.

There is never danger of sloughing of any portions of the flaps when care is taken to avoid tension.

8 East Sixty-sixth Street.

REGENERATION OF RADIUS AFTER ITS REMOVAL FOR OSTEOSARCOMA.[1]

By CARL BECK, M.D.,

SURGEON TO ST. MARK'S HOSPITAL AND TO THE GERMAN POLIKLINIK, NEW YORK.

Rosa M——, eighteen years of age, shows an excellent family record and never was sick until one year ago, when she first noticed a small lump on the upper third of her right radius. There was no history of a trauma or of an hereditary disease. As the tumor was painless, the therapy at first consisted in applying home made ointments only.

About nine months ago, when I first met her, she showed a healthy general appearance, had a good appetite and normal temperature and pulse. On the upper third of the radius, and coherent with it, was a hard, painless tumor of a regular oval shape, and of hen's egg size. The interosseous space was filled by the tumor.

My diagnosis was osteosarcoma, wherefore I advised immediate extirpation. This advice was not followed, however, as a colleague promised her to cure her by the use of iodide of potassium and of inunctions. (Undoubtedly syphilis was suspected.) But when, three months later, the growth, instead of decreasing had increased, she asked me herself for an extirpation. At this time, that is, six months ago, the tumor had reached the size of a man's fist, and occupied now a considerable portion of the ulna also. Besides, there was a good deal of pain complained of. She had lost considerable, felt weak, and her appetite was poor. The temperature was normal, but the pulse frequent. When I, by extirpating under Esmarch's constriction, had exposed the radius, I found that it, from its neck to about one half of an inch above its lower end, was taken up by the neoplasm. Softening of the bones was advanced so far that easily I, without using saw or chisel, could lift it up with the sharp spoon. Of the ulna, which three months ago could well be separated from the growth, about three inches had to be resected now. Although the periosteum could only partially be saved, the enormous cavity, which was packed with iodoform gauze (a few stitches had diminished its size somewhat), closed after two months. At the same time the whole bone was entirely regenerated. The function, six months after the operation, is perfectly normal. The neoplasm was examined by the pathologist of St. Mark's Hospital, who pronounced it to be an osteosarcoma containing spindle and giant cells. The patient enjoys excellent health and shows no abnormities whatever. Bearing in mind the extremely bad prognosis of this kind of malignant tumors it is evident that an operation should take place as early as possible; wherefore it is to be deeply regretted, if antisurgical colleagues are extending their specific experiments over too long a period.

It is perfectly proper to try to form an opinion "ex juvantibus et nocentibus," but if after, say three weeks, elapse under the administration of mixed treatment a tumor increases instead of decreasing, the medical treatment should not be carried on any further. If clinical examination should leave any doubt, it would be safer to make a microscopical examination of a piece, obtained either by excision or harpooning.

37 East Thirty-first Street.

[1] Case presented to the surgical section of the Academy of Medicine, November 13, 1893.

Progress of Medical Science.

Supraclavicular Inspiratory Depression in Early Phthisis.—Dr. Revillet once more draws attention to the above phenomenon. Practitioners know how difficult the diagnosis of early phthisis may be and how important it is to have this point clearly settled. The search for bacilli in any sputa that may be expectorated is in suspected cases helpful. But one may have to wait a long time before any micro-organisms can be detected. In like manner dulness on percussion and crepitation may be absent, and we have to rely on the presence of such delicate signs as rough, feeble, and wavy breath-sounds in solving the problem. In weak girls the detection of feeble and staccato respiration at the apex may mean nothing; but, according to Dr. Revillet, if to such ambiguous signs is added unilateral inspiratory depression of the supraclavicular fossa the presence of tuberculous pleurisy of the apex may be unhesitatingly affirmed, this sign being pathognomonic of the lesion. It may be absent, however, in cases of apical pleurisy where adhesions coexist consecutive to diaphragmatic or parietal pleurisy, for in such instances the play of the apex of the lung is interfered with. In five post-mortem examinations of patients in whom during life this supraclavicular inspiratory depression had been noted, thick and tough adhesions of the corresponding apices were observed. In two instances atrophy of the platysma myoides and of other muscles of that region was observed. If, in such a case, traction is made on the lung from below the phenomena may be easily reproduced. It must not be forgotten that evident signs of early phthisis may be masked by the râles of bronchitis, and here, again, Dr. Revillet's sign may prove to be of use. When the tuberculous process is more advanced both apices become attacked and the sign loses its significance; but in this case, again, the greater amplitude of the depression at one apex enables the medical attendant to say that that apex was the first attacked. In a period of four years Dr. Revillet has proved in the post-mortem room that these apical adhesions may disappear; and, in fact, this observer tells us that, as the tuberculous deposit may be limited to the pleura, and as, moreover, these adhesions may be absorbed, a comparatively favorable prognosis may be made in these cases. Of twenty-six cases kept under observation during four years only one terminated fatally, the rest remaining *in statu quo* or becoming only very slowly worse.—*La Semaine Médicale.*

Successful Operation upon a Splenic Abscess in a Child.—Dr. Sendler has reported the case of a girl, four years of age, of good family history, and previously never ill, who, without known cause, began to fail in health (*Medical News*). The child was languid, without appetite, vomited occasionally, and from time to time suffered with diarrhœa. A fall down steep stairs was immediately followed by pain in the left hypochondrium and repeated vomiting. The pain became progressively more severe and a swelling formed in this region. At the same time the general condition suffered correspondingly. It could not be learned whether or not there had been fever, but there was no knowledge of chills. The skin covering the swelling was smooth and unchanged in color. The mass was immobile and yielded deep fluctuation. There was no evidence of involvement of lungs, pleura, or heart. It was recognized that an abscess existed, but its origin was not clear, although implication of the spleen received consideration. At all events, operation was believed to be indicated, and was accordingly undertaken. A free incision was made below and parallel with the left costal arch, revealing an abscess-cavity, with thickened walls adherent to the abdominal parietes, and containing inspissated pus of cheesy consistence. The abscess was about as large as a small hen's egg and occupied the body of the spleen. After the sac was evacuated a rubber drainage-tube was introduced into the cavity, the overlying tissues were sutured, and an antiseptic dressing was placed over all. Recovery ensued without complication. The etiology of the abscess could not be determined, although it is believed that it existed at the time of the fall, which resulted in its rupture, with the formation of inflammatory adhesions.

Ureteritis Membranacea.—Dr. Jaksch has reported the case of a woman, forty-five years old, who seven years previously suffered from pain in the back and right loin. Soon afterward there appeared pain in the left loin, sometimes attended with vomiting. Two years later a small calculus was passed, with severe colic, referred to the left kidney. Some relief followed this, but attacks of colic, vomiting, muddy urine, and painful micturition occurred at intervals, accompanied occasionally by rigors and fever. The urine was neutral in reaction, contained some albumin, and also some unbranched, translucent, ribbon-like structures about four inches long, arranged spirally. These bodies varied a little in breadth and resembled the similar appearances encountered in the sputum and fæces. This resemblance was still closer in that they consisted of mucin and fibrin. Microscopically, they were like Curschmann's spirals, but without the central thread. On the surface could be seen flattened epithelial cells, singly and in groups, such as are found in the bladder and ureter, amorphous masses, and crystals of calcium sulphate. Throughout the sediment were scattered amorphous masses composed of calcium carbonate, fine crystals of triple phosphate, well-formed crystals of calcium sulphate, and epithelial cells from the ureter and bladder. Neither cells from the renal tubes nor colorless corpuscles could be found. After rest in bed the pain in the loin disappeared, and the condition of the urine changed in a few days, the spiral formations ceasing to appear, and the crystalline forms becoming fewer in number. Sulphuric acid lemonade was administered, and the urine soon became acid, and in a few days the patient was dismissed, much improved.—*Medical News.*

Pental as an Anæsthetic.—Dr. P. F. Féodoroff has experimented with pental in general surgical anæsthesia. This substance does not become decomposed either in light or air; its specific gravity is about that of ether, and, like this latter, it is very volatile. Care must be taken to keep this substance removed from the fire; it burns with a very bright flame, but it has no explosive properties. The vapor of pental does not irritate the mucous membrane. According to Féodoroff, the duration of pentalization is from one to two minutes, and, the condition of anæsthesia once induced, it may be prolonged from two to five minutes. In about fifty per cent. of the cases the radial pulse is not modified, but otherwise the pulsations become more frequent, and sometimes there is arythmia. It is principally during the first minute that disturbances of the circulation show themselves; it is, therefore, very necessary to be circumspect during the primary inhalations, and not to have recourse to the concentrated vapor of pental, except after the first minute, when the action of the heart will already be regularized. It is important to call attention to two peculiar effects of the drug: 1. Analgesia occurs while consciousness is still retained; the patient executes all the orders of the physician, feels the contact of the instrument, but does not feel pain. It would, however, be imprudent to operate before the complete loss of consciousness; the majority of accidents which have happened during the use of pental were due to reflexes occurring in subjects insufficiently anæsthetized. 2. From ten to fifteen minutes after a first administration of the drug it may again be used without its action being weakened; it would even appear that the subjects are still more susceptible to its effect. One must also be careful never to operate with a patient in a sitting posture, but always in the recumbent position, for fear of dangerous accidents. To resume: Pental is an excellent anæsthetic in operations of short duration.—*University Medical Journal.*

Clinical Department

A SIGNIFICANT SYMPTOM OF AORTIC ANEURISM.

By JAMES ROSS, M.D.,
SURGEON OF STEAMSHIP MACKEY-BENNETT.

In the MEDICAL RECORD of August 12th appears a paragraph referring to a significant symptom in aortic aneurism. Last year I had a case answering nearly precisely the paragraph alluded to, and thus my reason for writing this article. My patient was one of our engineers on board ship, an Englishman, in his forty-sixth year. He was a very robust man, a hearty eater, and rarely missed his bottle or two of beer daily. Though evidently in good health he had always been extremely nervous about himself, often consulting me on the slightest provocation. I, being a ship's doctor, probably induced him to seek advice oftener than if I were paid out of his pocket. In January, 1892, he developed a slight hacking cough, with scanty expectoration, occasionally tinged with a minute quantity of blood. About March 1st, he experienced a sharp pain situated between inferior angle of left scapula and vertebral column, at times shooting up to the left shoulder. Pain was only severe at night, apparently most acute while lying on his back. Though I had examined him several times I could not satisfy myself that his symptoms were due to an aneurism or other tumor. I restricted his diet slightly, stopped his beer, and gave him a saline aperient mixture; his condition then considerably improved. While in port I thought of calling a consultant, but as he seemed better and was able to perform his daily work constantly, I hesitated till hope had vanished. One night in August I was hastily summoned to see this man, and after getting on board found he had had an attack of hæmoptysis and was very weak from the loss of blood. That this unlooked-for attack was due to aneurism was plainly obvious, and the chain of symptoms mentioned a consequence of its presence. The following morning a consultant was sent for, and just before Dr. Chrisholm's arrival at 9 A.M., patient had another seizure of hemorrhage, but not so severe as the former one. About midnight of the same day, or about twenty-five hours after the first hemorrhage, another attack of hæmoptysis quickly ended his life. A hasty and incomplete autopsy was held and an aneurismal sac was discovered about the junction of the transverse and descending aorta. It was seen to press on one of the larger bronchi, through which a small aperture had been made from erosion of the sac. The aneurism was apparently entirely free of a fibrinous clot, and had undergone considerable atheromatous change.

REMOVAL OF IMPACTED URETHRAL CALCULUS.

By J. C. HILL, M.D.,
ROCKLAND, ME.

William M——, aged forty, sailmaker, came to me in April complaining of great difficulty and pain in urination. Stream was very small and its passage always accompanied by pain and tenesmus; at times it was impossible for him to urinate, the penis being turgid and inflamed. This condition had existed for twenty-one years; the data being fixed indelibly in his mind by being prostrated at that time by excruciating pains in the region of the bladder and by the passage of bloody urine; since which time this condition dated. He stated that he had suffered from a chronic urethral discharge during that period, and had been twice treated for specific urethritis, which he had reason to believe never had existed. He had a constant feeling of abdominal distention, with an ever-present desire to micturate and "a pain in the back which made his life miserable." Pulse was rapid and feeble; skin sallow and moist; eyes had lost their brilliancy; frontal headache was of almost daily occurrence, an anxious and careworn expression of countenance, and the general appearance emaciated.

I passed a small catheter with some difficulty, owing to what I supposed to be spasm of the urethra, and relieved the distended bladder of thirty-two ounces of thick, high-colored, offensive-smelling urine. This urine upon standing rapidly precipitated a large quantity of phosphates.

Chemical examination of the urine discovered the presence of albumin, two per cent., but under the microscope no casts could be found. Pus cells were abundant.

Upon withdrawing the catheter it came in contact with a hard substance about 2.5 ctm. from meatus, which upon further examination proved to be a calculus. This portion of the penis was cocainized by urethral and hypodermic injection of an eight per cent. solution, the urethra incised, and the stone removed. The calculus weighed 2.5 grammes, was 2½ ctm. in length and 2 ctm. in breadth, ovoid in shape, with an irregular surface.

The parts healed by first intention; all urethral discharge ceased; subsequent examinations of the urine showed no albumin. The patient from morose became cheerful. All of his previous ailments disappeared. He gained rapidly in weight, and recovered an excellent degree of health.

A CASE OF HÆMATOMA OF THE VULVA.

By PAUL SKIFF ROBINSON, M.D.,
STONY CREEK, CONN.

October 23d I was called to attend Mrs. F——, aged thirty-two, in labor with her fourth child. The head presented in the L. O. A. position; pains were strong, and though she had a slightly flattened pelvis, the surroundings, attitude of friends, and impossibility of obtaining intelligent assistance, made me decide against interference unless some imperative indication should arise.

The first stage lasted ten hours, it being necessary to rupture the membranes, and about a half-hour later I noticed a decided tumefaction of the left labium majorum. This steadily increased, despite the application of cold and judicious pressure, until at the end of the hour the lip had swollen to the size of the two closed fists, was very sensitive to the touch, and giving intense pain to the patient. Fearing rupture if labor were allowed to continue for a much longer period, I applied forceps to the head, which was just beginning to bulge the perineum, and by gentle traction brought the head to the vaginal orifice. Then removing the forceps and supporting the tumor with the entire left and palm of the right hand, with the fingers I directed the head to press as much as possible toward the right side of the vulva, and at the end of the second pain thereafter the head was born; then quickly extracting the body by a finger in the axilla, all danger of rupture and laceration was passed. The placenta was easily removed by Credé's method, and after being washed and cleansed, the mother rested quietly.

The child was born slightly asphyxiated, but respiration was easily established, and it did well.

After-treatment consisted of cleanliness and the application of cloths saturated with a hot three per cent. solution of carbolic acid to the vulva, and at the end of the third day no sign of the tumor could be detected, and there has been no trouble since.

The cause I believe to have been obstruction of the pelvic veins, particularly the vaginal plexus, by the child's head, but why in this case only the left lip was involved, puzzles me.

A peculiar element in the case was the presence of a relaxed condition of portions of the internal saphenous vein of each leg, which the patient's husband tells me have in all previous labors been greatly distended; but at this time there was no unusual fulness or appearance of obstruction.

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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CARBOLIC ACID IN FULL STRENGTH IN SURGERY.

DR. OSCAR H. ALLIS, of Philadelphia, in a recent paper before the Philadelphia Academy of Surgery, draws attention in a suggestive way to the use of pure carbolic acid in the after-treatment of surgical wounds. He was led to investigate the effects of the application by the successful experience of Dr. B. F. Gardner, of Bloomsburg.

Dr. Allis thus describes the method, which had its origin in an accident: "When Lister introduced his paste Dr. Gardner used it quite extensively. After an application to quite an extensive wound surface he was surprised to find it turn white, and that he had used pure carbolic acid. He therefore immediately washed the surface and dressed the wound, keeping it open until oozing had ceased. The case did so well that it inaugurated with him a line of treatment that he has extensively employed. As a typical application let me take an amputation of the female breast. After its removal and the ligation of the bleeding vessels carbolic-acid crystals, dissolved in sufficient water for solution, are applied with a sponge to all parts of the cut surface. Immediately upon the application of the acid the tissues turn white, which is a guarantee of its thorough action. The wound surface is then washed with water previously sterilized by boiling, and then approximated with provisions for drainage. This is especially necessary, as for twenty-four hours the oozing must find ready exit. During the first few days there is a slight local hyperæmia along the borders of approximation, but this declines without crisis."

It is claimed for carbolic acid applied in officinal strength, 1. That no systemic absorption attends its use, and hence no danger, no shock. 2. That it is a local anæsthetic. Hence there is not as much pain after the operation. 3. That it is in a measure a hæmostatic, acting especially upon the capillary vessels. Although the use of the acid as a direct application to wound surfaces, diseased membranes, and fungoid granulations is not new, we have presented to us some thoughts on its extended employment which may perhaps be profitably directed into practical channels. The good results of its employment in the open methods of treatment of hydrocele are suggestive and instructive in this instance. In intestinal surgery it also has its given range of application. Intra-abdominal stumps are often tipped with the pure acid with good results.

While it is not considered necessary in ordinary operative wounds, aseptically treated, it would seem to be proper in those cases in which thorough antisepsis is otherwise doubtful or impossible. Against the claim that it produces necrosis are cited numerous cases in which after the deeper tissues were whitened with the characteristic coagulation the wound was closed, healing by first intention. It may yet appear that pure carbolic acid has a rôle of its own in just those exceptional cases; at least it is deserving of a cautious trial in proper hands.

HOW TO OVERCOME MALARIAL INFLUENCES.

MALARIA, by its vexatious persistency, wide distribution, and crafty insidiousness, is much like original sin. Both are looked upon as the birthright of most of us, and in such a view are generally accepted with becoming resignation and apathetic complacency. While many with comfortable assurance lull themselves into security when away from swamps and at different altitudes, others claim that the poison is everywhere, even in the highest mountain-tops, and still others maintain that there is no immunity save in a purely sulphurous atmosphere in a famous inferno not adapted to living creatures. Its history belongs to that of the world, and its defiance has been chattered in the teeth of every generation from the time our first parents went abroad. So we shall probably have it with us always, and when there is anything new in its history, development, or prevention we are alert with attention and patient with facts. And even when the old story is told anew we listen with eagerness for something we may have missed before, in order that we may keep our consciences clear and our receptive faculties in proper trim.

Indulging in these general reflections we have brought to our notice an abstract in *The Lancet* of Professor Tommasi Crudeli's views on the preservation of human life in malarious districts. As the distinguished writer is an acknowledged authority and has had a large experience with the disease, we may at the start become discouraged to learn that as yet we have no precise knowledge of the real nature of the malarious poison or the means whereby it can be extirpated from the soil of an infected locality. He also tells us that the poison inheres in the soil; that it is under the influence of season, temperature, and rainfall; that it is excited to fresh activity by all measures involving the disturbance of earth long left quiescent; that its ravages have been much reduced by drainage, by the conversion of naked soil into meadow land, and by the erection of houses and laying down of pavements for streets.

He also points out that the traditional precautionary measures long adopted in malarious countries have had two ends in view, viz., to reduce as much as possible the quantity of the malaria ferment which enters into the system through the air breathed and to prevent a lengthened abode of the same in the system. The first point is sought to be achieved by avoiding agricultural operations during those hours at which the malarious influence is most potent—viz., about sunrise and sunset. Hence, according to the writer, is really explained the much-misunderstood dictum of the ancient Sybarites: "If you wish to live long and well, do not ever see the rising or the setting sun." Another point of the greatest importance is to avoid breathing the air in close contact with

the soil, as it can be shown that the malarious poison rises only a short distance in a vertical direction. Thus in the Pontine marshes, an intensely malarious region, platforms four or five metres high are erected, upon which the people sleep in the open air with comparative impunity. In Greece, the jungles of the East Indies, and Central and Southern America, similar devices have been adopted with beneficial results. Another mode of eluding the malaria-laden air in close contact with the ground is to construct the dwellings in such a way that when the door is shut the internal atmosphere is renewed only by the strata of the local atmosphere which are near the roofs of the houses. This is managed in some localities by so arranging that the only opening in the outer wall is the door, and all the windows open on an inner yard at a higher level than the ground floor of the house.

It is advisable also to keep the windows of the houses closed in the morning and during the early hours of the evening, especially if any excavations should be going on in the neighborhood. Care should be exercised regarding the effects of placing vases of flowers in occupied rooms. Either these should be entirely excluded from houses when malaria is rife, or the utmost vigilance should be taken to secure thorough ventilation.

Many of these observations are old, and some perhaps are new, at least to a few of our readers. We present them as they are given us, while we cling to our quinine closer than ever.

THE "CELEBRATED PHYSICIAN."

We should like to get hold of the gentleman who masquerades as "a celebrated physician" in the public prints. He is a person quoted by all, yet familiar to none. Sometimes he is "a celebrated English physician," and then he has something to say about diet and drink. He is the person who some years advises the public to take two ounces of alcohol daily, while in other and drier times he asserts that spirits are poisonous in even the slightest amount; he advises people to take hot milk and cold tea, to wash the ears with ice water as a preventive of colds, to sleep with the head toward the north—or south—to wear garters and liver-pads and belts. The "celebrated French physician," who is less heard of nowadays than formerly, is more frequently credited with a *bon-mot* or some marvellous surgical or psychological contribution to newspaper science. The "celebrated German physician" utters some last word about the nature of disease, or advises daily baths. We regret to say that "the celebrated American physician" has not yet a market value in newspaper syndicates. Individually there are a few who are esteemed, but the class as a whole has not reached that height of public fame and breadth of public recognition which gives journalistic value to the title of "a celebrated American physician." Consequently we do not yet find this learned class advising horseback exercise for malaria, hot water for constipation, milk and Vichy for rheumatism, fish diet for gravel, and similar valuable additions to the personal knowledge of the masses.

Lately "celebrated physicians" have been concerning themselves greatly about the ladies. We quote the following:

"A celebrated physician on being asked 'What is the exercise most conducive to physical beauty in women?' replied, very decidedly, 'walking.'

"Tennis he declared to be too violent, and too much of it is likely to lengthen the arms and make the height of the shoulders uneven.

"Cycling renders women awkward in their walk. They gradually come to move with a plunging kind of motion the reverse of graceful, and frequently cultivate weakness of back, which makes them hold themselves badly.

"Riding is one-sided, and women who have habitually ridden for years usually have one hip higher than the other.

"Croquet really does not give exercise, and after a survey of all the ways he knew in which women take physical exercise he considered none so conducive to health and beauty of form as walking."

To this we say, in the name of the Prophet—Fudge! The above anonymous celebrity utters an opinion which is dogmatic, destructive, and audacious. It is read and quoted over the country. Thousands of people perhaps believe it; mothers begin to worry, stop their daughters from their sports, and set them to the inane task of pure and objectless pedestrianism. And, after all, "the celebrated physician" may have been only the reporter on a daily paper, with a fad to propagate.

As a matter of fact, no expert in physical training, or physician of practical experience, would agree for a moment with the celebrated gentleman quoted above. They would say that the physical training of every girl is a problem by itself; that properly applied calisthenics, with baths, could do most for physical development, and that out-door exercise should include something calling for the development of the chest—a thing walking does not accomplish.

We call upon our readers and the general public to look out for the "Celebrated Physician" of the prints. He is a dangerous man; he is a shield for dogmatism and quackery; he should no longer be quoted.

THE FIRST DISCOVERER OF ANÆSTHESIA.

The history of the discovery of anæsthesia in this country is a tragic one. Of the three Northern physicians who claimed the chief merit, Jackson died insane, Wells committed suicide, and Morton died as the result of a painful accident. As to the respective claims of these gentlemen, the Record has in times past expressed its views and will open no fresh controversies. Southern physicians, however, have always asserted prior claims for Dr. C. W. Long, and lately Dr. Luther B. Grandy, of Atlanta, has brought forward fresh documentary evidence in favor of this gentleman.

The story as related by Dr. Grandy is somewhat as follows: Dr. C. W. Long graduated in medicine at the University of Pennsylvania, in 1839. After spending a year in New York he returned to his home in Jefferson, Ga., and began the practice of his profession there.

While in Philadelphia he learned something of the exhilarating effects of ether. When he got home he used to amuse some of the young men about town by getting them somewhat intoxicated with the fumes of the drug. We do not mean to infer that this was done to any great extent. Probably a few whiffs were administered only. He found, however, that in a few cases

persons who had hurt themselves while intoxicated with ether suffered no pain. This led him to think that ether might be used in surgical operations. The first operation under ether was performed on James M. Venable, March 30, 1842, when a small tumor was removed from the neck.

The documentary evidence is furnished from Dr. Long's ledger.

JAMES VENABLE.

1842.

January 28th.—Sulphuric ether.	$0 25
March 30th.—Ether and excising tumor	2 00
May 13th.—Sulphuric ether	0 25
June 6th.—Excising tumor	2 00

The details of that first operation under ether have been published by both Dr. Long and Dr. Sims. Concerning the subsequent operations not much need be said. On July 3, 1842, Dr. Long amputated the toe of a negro boy for disease. On September 9, 1843, he extirpated a tumor from the head of Mary Vincent, of Jackson, Ga. On January 8, 1845, he amputated two fingers of a negro boy. The certificates of two witnesses to this operation state that the first finger was removed under the anæsthetic, and that the boy experienced no pain; that the second was removed without ether, and was very painful.

No other operations were performed prior to October 16, 1846, when Morton administered his "letheon" at the Massachusetts General Hospital. Dr. Long was a general practitioner in a small town and had two opportunities to test his discovery in major operations. It seems probable that he did not produce profound narcosis, and he was not entirely sure that it was ether and not mesmerism or idiosyncrasy which caused the anæsthesia.

There is little doubt, judging from the facts furnished by Dr. Grandy, that Dr. Long first used ether for allaying pain in surgery. He did not have opportunity, however, to test it fully or to carry out full anæsthesia. Credit for this must be given to his Northern *confrères*. We are quite sure, however, that Dr. Long deserves the honor which the State of Georgia proposes, viz., that of placing his statue in the Capitol at Washington.

THE PUBLIC HEALTH BILL.

WE are gratified to learn that the Public Health Bill of the Academy of Medicine, which has been widely circulated through our columns and by the Committee which has it in charge, is received with universal favor. Upward of one hundred letters have been received by the Secretary of the Committee from all parts of the country, pledging individuals and societies to earnest work in behalf of the measure. In many cases physicians have gone directly to the Congressman of the District, or to the Senator from the State, and personally urged the bill upon his attention. In several instances members of Congress have deliberately examined the bill thus brought directly to their consideration, and have expressed their approval of it. This is a kind of work which will in due time yield abundant fruits. We wish more Congressmen could thus have been seen in the quiet of their homes, and pledged to give the bill their personal attention when it is introduced into either House. Failing in that it is important that every medical man who has a personal acquaintance with Congressmen, whether in the Senate or in the House, should place himself in communication with such member, furnish him with a copy of the bill, and urge him to consider it favorably. Medical societies should each appoint a special committee whose duty it should be to memorialize Congress, and during the session maintain a close correspondence with the Committee of the Academy in order that there may be harmony of action, especially when emergencies arise in the progress of the bill requiring a concentration of efforts.

We feel justified in saying, for the encouragement of those engaged in this most patriotic service, that indications of success are daily multiplying. The New York Chamber of Commerce has resolved to aid the Committee, and its example will bring the co operation of the Boards of Trade throughout the country. Life Insurance Societies have indicated a desire to add the weight of their influence. We have reason, also, to believe that this measure will prove acceptable to the Government. There is, therefore, every inducement for the Committee to urge forward its work, and for the medical profession of every State to co-operate on the lines above indicated. In answer to inquiries, and for the benefit of those who may wish to communicate with the individual members of the Executive Committee, which has the bill in charge, we give their names, viz.: Dr. T. Gaillard Thomas, Dr. E. G. Janeway, Dr. Richard H. Derby, Dr. Stephen Smith, Dr. J. H. Girdner. Information and copies of the bill may be obtained from Dr. J. H. Girdner, Secretary, No. 31 West Thirty-eighth Street, New York.

News of the Week.

Dr. Stuart Eldridge, of Yokohama, was tendered a reception in this city by Dr. Matthew D. Field, on Saturday evening, November 25th. A large number of medical friends were present, and the occasion was an enjoyable one to all.

Thanksgiving for the Doctors.—In the present healthful state of the community the doctors have reason to be thankful that they are not in any danger of being ruined by prosperity.

A Tribute to the Medical Profession of New York.—At the one hundred and twenty-fifth annual banquet of the Chamber of Commerce, of New York, President Charles S. Smith paid a just tribute to the doctors of the city. President Smith said: "The city of New York and the whole country are under obligations to this Chamber for their prompt action when, a year ago, this country was threatened by an invasion of cholera, and the character which this Chamber has established during the one hundred and twenty-five years of its existence for unselfish devotion to the public welfare enabled it to call upon the public for a subscription to meet a possible emergency, which was responded to in the amount of $195,000, all of which, with the exception of $20,000, was returned to the subscribers. It is also a pleasing duty to acknowledge in this connection the important aid that was rendered to the Chamber by the Advisory Committee of Physicians of the New York Academy of Medicine; and, gentlemen, it is not too much to say that there is no body of men in

the city of New York who give so freely and gratuitously of their time and services to the poor and suffering as do the medical men of New York. If, in the final analysis of human actions, character is the standard of success or failure, then the physicians of New York deserve to wear the laurel wreath."

The Late Dr. John C. Peters.—At the stated meeting of the New York Pathological Society, held on November 22d, the following resolutions on the death of Dr. John C. Peters were unanimously adopted:

Whereas, It becomes our painful duty to announce the death of Dr. John C. Peters, a founder of the New York Pathological Society, a former President, and for a long period an Editor of its Transactions, therefore be it

Resolved, That this Society desires to place on record its appreciation of his long and valuable services in the different offices in which he served during a period of nearly half a century of continuous membership.

Resolved, That from the first meeting of this Society until his last attendance he has been a tried and faithful servant of its best interests, an ardent promoter of its highest aims, and an active participator in all its progressive doings.

Resolved, That his untiring zeal in the performance of his multifarious duties, his constant courtesy in discussion, his painstaking accuracy of observation, and his ever available and profound knowledge were qualities which commanded the highest respect of his associates, and stimulated the emulation of all who shared the results of his unselfish labors.

Resolved, That the remembrance of his genial disposition, modest manner, energetic spirit, and scholarly attainments will ever serve as a cherished lesson from the well ordered life of a cultured gentleman, an honored citizen, and a model physician.

GEORGE F. SHRADY, M.D.,
JOHN H. HINTON, M.D.,
LEWIS A. SAYRE, M.D.,
Committee.

The Eleventh International Medical Congress, which was to have met at Rome on September 24th, but was postponed on account of the cholera epidemic then prevailing in Italy, will be held from March 29 to April 5, 1894.

One Cigar too Many.—The late Sir Andrew Clark was so ardent in his crusade against overeating and overdrinking, and so firm in his belief that in a large majority of cases diet would do far more than drugs, that he was a little too much inclined to take it for granted that his patients were self-indulgent to the ruin of their health. Among the many anecdotes to which his views gave rise the following is one of the most amusing:

A patient came to consult him, and was at once overwhelmed with directions on the subject of the life he should lead and the diet to which he should adhere. "Now, remember, only one glass of wine at each meal," the physician concluded, "and just one cigar after dinner won't hurt you. Good-morning. Be sure you keep strictly to the one cigar."

"One cigar!" said the patient. "But——"

"My dear sir," broke in Sir Andrew, somewhat testily, "I must insist. If I am to treat you, you must follow my directions. I know quite well you will find it hard, but it is absolutely necessary for your health."

The patient heaved a deep sigh. "All right, Sir Andrew; since you insist I will do my best. Good-morning."

He went his way, but his health did not improve, and at the end of a few weeks he returned to the physician's consulting room.

"No better?" said the doctor, surprised. "But have you followed all my directions?"

"Absolutely," replied the visitor. "I must admit that the cigar was rather hard work at first, and in fact made me feel very ill; but I soon got used to it, and now I rather like it."

"Good heavens!" said Sir Andrew, on whom the truth dawned, "do you mean to tell me——"

"Yes, I had never smoked before."

Determination of Sex.—Dr. J. C. McAllister, of Driftwood, Pa., writes: "In a recent case coming under my observation, where the time of conception was definitely known to have taken place immediately after menstruation ceased, a well-developed female child was born on the two hundred and seventy-fourth day."

Who First Opened Woman for Diseases of Her Appendages?—Cullingworth, in his able address on gynecology before the British Medical Association, tells us that Hagar, Tait, and Battey performed resection for diseased ovaries at about the same time. It was in 1872, Hagar, on July 27th, did the first operation at Freiburg, for neuralgia of the ovary with hemorrhage. Five days later Lawson Tait removed the ovaries in a case of large uterine fibroid with excessive metrorrhagia. About three weeks after Hagar's operation, Battey, of Georgia, operated for hystero-epilepsy. Simms coined the term "Battey's Operation," because the latter first fully set forth its purposes and the technique of the operation.—*Gazette de Gynecologie.*

"**Anti-diphtherine**" is the name of a new remedy emanating from Professor Klebs, of Vienna, by which, it is stated, cases of diphtheria can be certainly "cured." The sanguine way in which reports of this nature are issued by the lay press is a feature of modern journalism.

Iodine Trichloride as a Hypodermic Injection in Puerperal Septicæmia.—Gottschalk publishes a note on the use of iodine trichloride in cases of puerperal fever. It has been asserted that this salt is so irritating that it cannot be used hypodermically. Gottschalk has employed it in three cases of puerperal fever, injecting it deeply into the gluteus muscle without any painful result. He used a one per cent. solution, of which from one to 2 c.cm. were injected once or twice daily. Two of the cases recovered.

The Physicians' Protective Association is the title of a society recently established in Detroit. It contemplates the collection of fees for professional services.

Why Physicians do not Share the Honors of the World.—With that ingenious acumen which so peculiarly distinguished him, Dr. Walter Moxon used to contend that the reason why the medical profession did not largely share in the "honors" of this world was that the physician and surgeon were concerned with units as opposed to the race. It could hardly be expected, there-

fore, that the race would reward the medical man as it rewards the politician, the lawyer, and the soldier, who act on behalf of the constitution, the State, and the country, and pay little regard to the individual in their respective avocations. It may be from some reason of this kind that medical men have not paid as much attention as might have been expected to general biological problems, feeling perhaps that the teachings of biology were often at variance with their efforts to preserve the individual.—*Medical Magazine.*

The Samuel D. Gross Prize.—The quinquennial prize of $1,000 under the will of the late Samuel D. Gross, M.D., will be awarded January 1, 1895. The conditions annexed by the testator are that the prize "Shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens." It is expressly stipulated that the successful competitor, who receives the prize, shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery. The essays, which must be written by a single author in the English language, should be sent to Dr. J. Ewing Mears, 1429 Walnut Street, Philadelphia, before January 1, 1895. Each essay must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year. The Committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

A New Building for the Omaha Medical College, costing $20,000, was dedicated November 21st. Dr. H. B. Lowry, of Lincoln, Neb., delivered the opening and dedicatory address to a large audience.

Death of Dr. John Fussell, of Wheeling.—Dr. John Fussell, of Wheeling, O., died November 18th, aged seventy-eight. For nearly fifty years he was the leading practitioner of his vicinity, and was an active participant in all matters tending to advance sanitary and municipal reform.

The Use of Tobacco by Lunatics.—Some time ago we noticed the recent order of the Lunacy Commission of this State abolishing the use of tobacco in the Hudson River State Hospital at Poughkeepsie, on the plea that pipe smoking might occasion fire. While such dangers could be easily obviated, we cannot estimate the real amount of discomfort and suffering which may be occasioned to the helpless inmates who have used tobacco during the greater part of their lives. Very properly, protests against this absurd action are coming in from all quarters. As yet, however, the commission is autocratically silent.

More about Football.—The *New York Herald* publishes the detailed accounts of twenty-six deaths occurring so far in England during this season, directly attributable to football injuries. During the season of 1891–92 the number of deaths was twenty-two, and during 1890–91 there were twenty-three deaths. Mr. R. D. Paine, *New York World*, gives this account of the scholarly life of the football player: "More than two hours every day are now spent in signal practice. In the forenoon, the hour from 10 to 11 is passed on the floor of the big exercising hall of the gymnasium. The doors are locked and the eleven lines up against imaginary opponents. The coaches criticise the way the plays are put into effect, and the whole series of signals is gone through with again and again. The hard practice game takes from 2 until 4 in the afternoon, and it is 4.30 before the men are all sponged, rubbed down with alcohol by professional rubbers, and dressed. Supper at the training-tables comes at 6 o'clock, and from 7 to 8 comes signal practice again behind sealed doors in the gymnasium. This ends the day's work for the weary band. At 10 o'clock the force of rubbers starts out and every player is visited at his room, where, just before he tumbles into bed he is thoroughly rubbed and liniment applied to bruises and sprains. This is the daily life of a university football man through November. He has the rest of the year in which to catch up with his studies. He does not get very deep into learning while his hair is long and the canvas jacket the sign of his calling."

Bechterew has succeeded Mierzejewski in the chair of neurology and psychiatry in the Military Medical Academy of St. Petersburg.

Dr. John M. Keating, of Philadelphia, died of pneumonia, at Colorado Springs, on November 18th, whither he had gone some three years ago on account of failing health. He was the eldest son of Dr. William V. Keating, and was well and favorably known as an obstetrician, gynecologist, and pediatrist. He made a number of valuable contributions to medical literature and held a number of important positions in Philadelphia, where he was highly respected and esteemed. His system of children's diseases formed one of the best of American contributions to medical literature.

Boston Physicians find that acute poliomyelitis (infantile paralysis) was unusually prevalent during the past summer and fall.

Another Fatal Accident at football is reported, making six in all for the present season.

The Negro Physicians have an organ, the *Medical and Surgical Observer.* The medical ladies have an organ, also the railway surgeons, the Chinese, and the *Medical Mirror* asks why not red-headed men?

Virchow's Successor.—Professor Weinhold has been elected Rector of the University of Berlin to succeed Virchow, whose term ended at the beginning of the present semester. The new Rector at once appointed Virchow to be a member of the University Senate.

A Reception to Dr. Holmes.—The College Club of Boston gave a reception to Dr. Oliver Wendell Holmes last Saturday afternoon. Mrs. L. S. Davis, the president of the club, assisted by Mrs. Alice Freeman Palmer, received the guests. About five hundred persons were presented to Dr. Holmes, who received them seated in a laurel-decorated chair in the parlor, under a bower of palms. During the evening Dr. Holmes recited "The Last Leaf," "Dorothy Q," and "The Chambered Nautilus."

Society Reports.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, November 16, 1893.

D. B. St. John Roosa, M.D., President, in the Chair.

Myxœdema, Acquired and Congenital, and the Use of Thyroid Extracts.—Dr. George W. Crary read a paper on this subject. The pathology and etiology were touched upon briefly, as he said he had nothing new to offer in this direction. Greater space was given to symptoms and the results of treatment by thyroid extract. Myxœdema was a disease of all ages, but occurred oftenest in children and in women about the menopause. It might be well marked at birth. In adults the clinical picture was pretty uniform. In a typical case the facial expression was dull, the skin thick, the eyes partially closed, the lids heavy, the brows elevated because of the constant attempt to keep the lids raised, the forehead wrinkled, the nose broad, its base flattened, the lips thick, the mouth open, the tongue partially protruding, the chin double, the speech slow and indistinct, the hair fallen out, the skin dry, scaly, and wrinkled and spotted with chloasma, a hectic spot over the malar bones in strong contrast to the color of the rest of the skin, the mucous membranes pale, the skin over the whole body swollen but not pitting, contrasting in this regard with the œdema of Bright's disease. Vesicants had little effect. There was dysphagia, and the patient complained of changed sensations, like cold water was being poured down the back, etc. The patient was melancholic, but not as in ordinary melancholia. There was muscular weakness or lassitude. The temperature was apt to be below normal. The urine often contained the elements present in Bright's disease. The disease developed slowly, and the patients were better in summer than in winter.

In the congenital form the symptoms and peculiar appearance just described existed in exaggerated degree in consequence of interference with development. The patients might be of feeble intellect or idiotic, be epileptic, deaf-mutes, etc.

The greatest liability to err in diagnosis was in confounding the acquired form of myxœdema of adults with chronic Bright's disease, and in two of the cases which the author related that mistake had been previously made. But after one had seen cases of myxœdema the differential diagnosis was not difficult to make, especially after the early stage. The congenital form in infants bore some resemblance to rachitis, but the two conditions were not often confounded.

Treatment.—The treatment of myxœdema was by extract of the thyroid gland. One whose name would ever remain most closely associated with this method was G. R. Murray, of England. For a historical review the author referred to Dr. Kinnicutt's paper. The extract from the thyroid of the lamb had been found more efficient than that from the older sheep. It was efficient, whether administered subcutaneously or by the mouth. Where bad effects had followed they had been due to the use of too large doses. Among them were headache, nausea, vertigo, even convulsions. The effect of the treatment upon the disease was to cause the œdema to disappear, and to improve all the symptoms except the anæmia and rheumatoid pains. The urine tended to clear up; the quantity of the fluid and urea, together with the specific gravity, increased. Aude had pointed out that during the first two weeks the amount of nitrogen excreted exceeded that in the food. Where there had been failure it was not unlikely thymus instead of thyroid extract had been employed. In nearly all reported cases the symptoms had regularly disappeared after three or four weeks' use of the extract, but it was necessary to continue the remedy subsequently, though in smaller doses, in order to prevent a return of the symptoms. Dr. Crary had used the glycerine extract in all cases, twenty-four parts of gland tissue to one of glycerine. The preparation should be kept from the light and heat. In a suitable place it would keep for months without change. An ordinary dose for an adult was five drops three times a day, which might be increased to fifteen; in infants, one drop three times a day, increasing to six drops a day.

Among the four cases which the author had treated by this method a most striking one was that of a child suffering from congenital myxœdema with the appearance of marked symptoms the first year. He saw the child at the fifth year, when its development was only that of an infant. But little mentality was manifest, and the effort of turning over in bed caused prostration; the entire body was markedly œdematous, the face swollen, lips thick, eyes closed, nose flattened, tongue protruding, skin dry, etc. Within a few weeks after beginning treatment with the thyroid extract there was marked improvement, and within a few months there was an entire change in the appearance and in the bodily and mental condition. Measurements were taken and showed rapid decrease of circumference of legs, etc., from disappearance of œdema, but rapid increase in length of the extremities from physiological growth following the treatment. It was not improbable, he said, that many cases of backwardness or idiocy in children were due to myxœdema and could be improved or cured by the use of thyroid extract.

Lantern Exhibition of Photographs of Myxœdema Cases.—Dr. M. Allen Starr projected on the screen photographs of about half a dozen cases of myxœdema, showing the stages of development of the disease and the effects of treatment by thyroid extract. Two or three of the cases had occurred in his own practice and had been treated by Dr. Crary, with the results described in the paper. Dr. Starr had regarded the first two as cases of Bright's disease until his attention was called to myxœdema, when the diagnosis was corrected, thyroid treatment was begun, and the patients were cured except for the persistence of anæmia and some rheumatic pains. He believed many inmates of asylums and many persons supposed to be suffering from Bright's disease were really afflicted with myxœdema and could be improved in a most striking manner by the use of thyroid extract. The melancholia in these cases was different from ordinary melancholia, and the dementia was different from ordinary dementia, whether primary or secondary.

A Great Discovery.—Dr. W. Gilman Thompson regarded the discovery of the therapeutical effect of thyroid extract in myxœdema as one of the greatest in the history of medicine. Little had been known of the function of the thyroid gland further than the effect of its removal in animals larger than birds and rabbits. Those effects were—tremor, muscular paresis, stupid mental condition, lowering of bodily nutrition, etc. Occasionally, however, the health of the animal was maintained. He had had a case of myxœdema of twelve years' duration, in which the beneficial results from a short course of treatment by the thyroid extract were most marked. It was usual for the hair to return, and he had heard of one instance in which it had been gray, and when it returned after treatment it was almost black.

Drs. Kinnicutt, Draper, and Kinnear each related cases treated successfully by the thyroid extract, and some further remarks were made by Drs. Brannan, Berg, and Crary.

To Change the Coroner System.—The committee, consisting of Drs. Girdner, Armstrong, and A. Jacobi, appointed at the last meeting to draw up resolutions regarding a change in the coroner system, reported the following, which were adopted, Dr. Berg alone opposing them, on the ground that the Academy should let politics alone, and also on the ground that the Massachusetts system was not known to most of the members, and was not as good as that in either Paris or Berlin:

Whereas, The prerogative and duty of the coroner,

among other things, is to investigate the cause of death from violence, and of death occurring under suspicious circumstances, also the cause of death of a person that died without the attendance of a legal practitioner or within twenty-four hours after the first visit of a legal practitioner who declared himself unable to make a diagnosis and to testify to the cause of death, and finally the cause of death in a premature or still birth, no matter whether foul play be suspected or not, provided there be no satisfactory death certificate by a legal practitioner;

And *whereas* the investigation of these obscure cases is beset with great difficulties, requires very much more than the knowledge and information of the average physician, otherwise fully equipped for the practice of medicine, demands indeed a very minute knowledge of general medicine and surgery, and particularly of pathology and toxicology;

And *whereas*, under existing laws the ferreting out of a criminal case is expected from a coroner, who need not be either a police officer or a lawyer or a physician, but who, knowing that the cause of death can be elucidated only by the application of medical science and art to the individual case, has to select a medical man as his deputy officer;

And *whereas* experience teaches that these deputies have frequently been selected either for their party allegiance or for personal reasons, and are often young men with no reputation for unusual skill, learning, or practical experience, and have not had an opportunity of giving public assurance of their character, integrity, and wisdom. It also teaches that the final verdict in a criminal case depends upon the finding of this deputy, who, under other circumstances, would not be accepted as an expert; on the summing up of a coroner, whose untaught mind cannot satisfy the claims of justice, and finally, on a jury gathered at random, without regard to standing, character, morals, intellect, or knowledge; be it

Resolved, by the New York Academy of Medicine, That a medical man of mature years, established character, broad mind, and sound and extensive information in anatomy, pathology, toxicology, and all the other branches of forensic medicine must be the responsible occupant of an office in whose keeping are the most sacred interests of the individual and of the community, and to him should be delegated the initiative and power to elaborate the investigations of an actual or alleged criminal act, his conclusions being reported to the office of the District Attorney; and be it

Resolved, That the New York Academy of Medicine earnestly calls the attention of the approaching Constitutional Convention to the admirable system of medical examiners which the State of Massachusetts has substituted for the coroners' system, and the Academy urges the enactment of similar laws in this State; and be it further

Resolved, That copies of this resolution be forwarded to the various county, local, and special medical organizations in this State, with the request that they lend their co-operation to secure the necessary changes in the constitution and laws of the State of New York.

The New York Infant Asylum Affair.—Dr. John Wyeth spoke as follows:

The subject I am about to introduce is unfortunately not new to the profession of this city. I do not know whether it has ever been brought before the Academy for official action or not. Within a few months a reputable physician, a member of the Academy, one of the visiting staff of the New York Infant Asylum, after years of faithful service, was, by the President of the Board of Managers, dismissed from the service and another physician appointed to fill his place.

No charges of any character were preferred against this physician. There was no question as to his qualification for, and his faithful performance of, his duties. The Medical Board, which is held responsible for the welfare of the inmates of this institution, was not consulted, either as to the dismissal of this gentleman or the appointment of his successor. The Medical Board, with becoming dignity and self-respect, protested against this action of the managers, and being informed that if they did not like it they could resign, they did resign.

I am not one of those who believe in the infallibility of the medical profession. On the contrary, I think they are very fallible and very often wrong, especially in their proneness to suspect an affront to their position or calling when none is intended.

I think the gentlemen of the laity who devote their time and money to the support and management of these great charities, in connection with which so many of us labor, are deserving of the utmost praise and consideration and are not second in unselfishness to ourselves.

But I do think that in this particular instance an honorable and devoted medical staff have been treated with such disrespect as to amount to an insult to themselves, to the profession in which they have had honorable careers, and that we as a body should resent it.

I hold that a principle is at stake, a principle which it is necessary to maintain, not only for our standing in this community (and this I consider of secondary importance), but for the best interests of that unfortunate class, the poor and helpless patients who come under our professional care at the hospitals. That principle is involved in the following resolution of the resigning board:

Whereas, The Medical Board of the New York Infant Asylum respectfully requested the Board of Managers: 1. No faithful medical officer shall be removed without cause. 2. Nominations to fill vacancies shall emanate from the Medical Board.

Whereas, These reasonable and just demands have been peremptorily refused by the Board of Managers.

Resolved, That in dignified protest and in justice to themselves as men and physicians, the following members of the Medical Board hereby resign.

In view of this I offer the following resolution:

Resolved, That the New York Academy of Medicine endorses the resolutions and the action of the physicians who resigned from the New York Infant Asylum, and joins in their protest against the unjust and unwise action of the Board of Managers.

Dr. Wyeth's resolution excited a warm and lengthy debate, during which several speakers spoke in opposition to the Academy taking action in this case because it would set a precedent for bringing before it in the future special cases of abuse of authority on the part of managing boards of hospitals, etc. Moreover, Dr. Bradley, as member of the Medical Board of the New York Infant Asylum, claimed that the action of the Medical Board was illegal as not a full quorum was present at the time the protest was made.

Dr. H. D. Nicoll, a member of the Board of Managers, said:

Nine years ago, a majority of the Board of Managers of the New York Infant Asylum, being dissatisfied with the members of the Medical Committee, changed the by-laws so as to place the entire medical management of the asylum absolutely under the control of the Board of Managers.

The following by laws were adopted, viz.:

"Article III.—Committees.

"Section 1. The Board shall appoint, annually, the following Standing Committees, viz.: an Executive Committee, a Finance Committee, an Auditing Committee, a Medical Board. . . .

"Section 5. The Medical Board shall consist of not less than five members, none of whom shall be managers, whose duty it shall be to supervise the sanitary condition of the Asylum, and the health of the inmates, under the direction of the Board, and perform such other duties as may be assigned them by the Board.

"Article V.—Physicians.

"Section 1. Visiting, Resident, and Consulting Physicians and Surgeons shall be appointed annually by the

Board, to be known as the Medical Board. Their duties shall be such as may be from time to time fixed by the Board.

"SECTION 2. The Board shall also appoint a Curator and Pathologist on such Medical Board, and such other officials in the Medical or Sanitary Department as it may deem for the best interests of the Asylum."

The original members of the present Medical Board, appointed nine years ago, took office after the above by-laws had been adopted, and, as far as my knowledge goes, did so without taking exception to the restrictions so plainly expressed in them, although these appointments had been declined by such members of the profession as Drs. Fordyce Barker, T. M. Markoe, John T. Metcalfe, Lewis A. Sayre, T. G. Thomas, and W. T. Lusk, because they were unwilling to serve under such rules, and each new medical staff since that time has, annually, accepted the appointments without complaint.

I am informed by the President of the Board of Managers that the Board has repeatedly exercised its rights in the matters covered by these by-laws. In making the medical appointments for the current year, the managers exercised this right. To this the Medical Board took exception in a series of resolutions sent to the Board of Managers, among which were these, viz.:

Resolved further, That the following statement of grievances be incorporated for the information of individual members of the Board of Managers:

1. A faithful medical officer has been removed without cause or explanation.

2. Appointments on the consulting and visiting staff have been made by the Board of Managers, without the knowledge or recommendation of the Medical Board, as has been customary in the past, and is the rule in other medical institutions.

Resolved further, That the Medical Board respectfully suggests, without desiring to interfere with the prerogatives of the Board of Managers, that:

1. No member of the Visiting or Consulting Staff be removed without cause or explanation.

2. That nominations on the Visiting and Consulting Staff emanate from the Medical Board.

To these resolutions the Managers replied as follows:

Resolved, As the sense of the Board of Managers:

1. That, as the members of the Medical Board and Medical Staff are appointed annually by the Board of Managers, their term of office is for one year only.

2. That it would be opposed to the spirit and intent of the by-laws, and contrary to the usages of this Institution, for the Board of Managers to feel compelled, in making their annual appointments, to consult the Medical Board, whose terms of office had expired, as to who should compose the Medical Board and Medical Staff for the ensuing year.

3. That changes in the annual selection of members of the Medical Board and Medical Staff cannot be properly construed as a removal of any previous members who may not be included in such selection; nor as any reflection upon them personally, upon their professional standing, or upon their past services to the Institution.

4. That this Board regrets that certain members of the Medical Board have felt themselves justified in reflecting upon the President of the Institution in a communication addressed to individual members of this Board personally.

5. That in the judgment of this Board the communication referred to was signed by members of the Medical Board under a misapprehension of the facts and of the relation of the Medical Board to the Board of Managers.

6. That the Secretary be directed to transmit a copy of these resolutions to the Medical Board.

The Managers believe that their resolution 3 was a satisfactory reply to the first "grievance," and that their resolution 2 fully covered the point of the second "grievance," as the members of the Medical Board have for nine years been living under the rules as they now exist. The Managers were unable to see how they could adopt the suggestions of the final resolution of the Medical Board without interfering "with the prerogatives of the Board of Managers," which the resolution expressly stated the Medical Board desired not to do.

Dr. Nicoll then read the following letter from Dr. Thomas:

"DEAR DR. NICOLL: I think that the Board of Managers of the New York Infant Asylum is to be arraigned at the Academy of Medicine to-night, and as I cannot attend, I write you this to be used by you in case any good can come from it. To save time and avoid prolixity I make my statement *seriatim*.

"1. About nine years ago I was offered the post of Consulting Gynecologist in the New York Infant Asylum and refused it, because I was unwilling to serve under the very objectionable by-laws passed by the Board of Managers. I was amazed to find that some of my colleagues were willing to wear a yoke which appeared oppressive to me.

"2. About a year ago you called upon me, expressed yourself as utterly dissatisfied with these by-laws, which you characterized as being humiliating to our profession, and asked me to become a manager in order to alter and improve them. Your hope at that time was to retain the existing Staff, and to free them from unworthy restrictions. Although very averse to doing so I yielded to your reiterated wishes and became a manager.

"3. Since that time I have had one special object in view, namely, the accomplishment of the purpose for which I joined the Governing Board of the Institution, and success would have met our efforts ere this had not the unwise and illogical action of a part of the Medical Board frustrated them.

"4. I appeal to my record of forty years in medicine in this city to sustain the assertion that no one has more consistently stood up for the dignity and honor of our profession than I, and supported by this, I declare that but one thing suggests itself as capable of defeating the object which I, as well as yourself, have in view; that is, some injudicious action taken to night which will deprive us of all influence and paralyze our best-directed efforts.

"I am, dear Doctor, sincerely your friend,

"T. GAILLARD THOMAS.

"November 16, 1893."

Dr. Nicoll, in conclusion, hoped the Academy would not adopt the resolutions, as it would make it impossible for them to effect the reform which they seemed on the eve of accomplishing.

The resolutions were finally laid on the table.

Proposed Changes in the By-laws.—DR. S. T. ARMSTRONG proposed some changes in the by-laws, one of which was: No section is authorized to institute any procedure that is of a public character without first submitting the subject for the consideration and approval of the Academy.

Black Urine.—Derivates of biliary pigment in the urine may simulate melanin. It cannot, therefore, be concluded that a melanotic tumor exists if the urine reacts to chromic acid. All melanotic tumors are not attended with elimination of melanin in the urine. It should be borne in mind that the urine of patients with melanotic tumors may contain melanin, and yet not react to chromic acid.—SENATOR.

Frank Advertising.—A method of offering commissions to physicians adopted by a Philadelphia firm of manufacturers and dealers in trusses is unequivocal. Blotting-pads are sent all physicians (even oculists!) praising the trusses, the "lady attendant," etc., but the most emphasized part of the advertisement is this, in double caps: "IF YOU WILL SEND US YOUR PATIENTS WE WILL RECIPROCATE WITH A CHECK BY RETURN MAIL." This is a notice to the traders in medicine, but it is also a notice to physicians where *not* to send patients.—*Medical News.*

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

Sixth Annual Meeting, Held in New Orleans, La., November 14, 15, and 16, 1893.

FIRST DAY, TUESDAY, NOVEMBER 14TH—MORNING SESSION.

THE Association convened in the assembly room of the Medical Department of Tulane University, and was called to order by the President, DR. BEDFORD BROWN, of Alexandria, Va., at 10 A.M.

Prayer was offered by the REV. B. M. PALMER, of New Orleans.

An Address of Welcome was delivered by DR. ERNEST S. LEWIS on behalf of the local profession, which was responded to by PRESIDENT BROWN.

DR. A. B. MILES, of New Orleans, then reported, as chairman, on behalf of the Committee of Arrangements. The reading of papers was then proceeded with, and the first paper read was by DR. HOWARD A. KELLY, of Baltimore.

Diagnosis of Pelvic Inflammatory Diseases.—Dr. Kelly called attention to certain common sources of error in making diagnoses of pelvic inflammation. An erroneous conclusion is often reached in these cases, both by general practitioner and specialist, by relying for the diagnosis upon such symptoms as dysmenorrhœa, more or less persistent pain in the pelvis, attacks of pain confining the patient to bed, diagnosed as peritonitis, difficult locomotion, cachexia (due to morphia habit), tenderness on pressure over the ovarian region, and extreme tenderness at the vault in a vaginal examination. Such a group of symptoms frequently characterizes a false or pseudo-pelvic peritonitis, in which there is actually no demonstrable lesion of any pelvic organ.

In order to make a diagnosis of true pelvic inflammatory disease the inflamed structures must be examined directly by touch. The various subjective symptoms must be regarded as of secondary importance in reaching a diagnosis. Even the patient's observation that she has passed a quantity of pus cannot be relied upon, unless the pus is seen by the physician, as patients often mistake muco purulent discharges from the uterus for the emptying of an abscess.

Fever, and especially recurrent attacks of fever, are valuable aids in making the diagnosis, but fever is generally absent, even in abscesses when the pus is encapsulated. The direct examination, the sole test, is made by the vagina, or by the vagina and lower abdominal wall, and the diagnosis of pelvic inflammatory disease is made when a definite hard resisting mass is felt on one or both sides of the cervix. Through an empty rectum these masses are still more distinctly outlined. When the disease is not quite so evident a bimanual examination through the rectum and abdomen should be made, carrying the index-finger of the lower hand above the rectal pouch behind the uterus, and laterally out on to the broad ligaments. The most minutely accurate examination of the pelvic organs which can possibly be made is called for when the ovaries and tubes are enclosed in delicate bands of adhesions which allow considerable mobility to structures not enlarged. This is accomplished by the trimanual method of vagina, rectum, and abdomen simultaneously, under anæsthesia.

Dr. Kelly exhibited his corrugated tenaculum devised to facilitate this examination. The point of the tenaculum is caught in the anterior lip of the cervix, which is drawn down to the hymen, and the tenaculum is held between the third and fourth fingers and the ball of the thumb, while the index-finger is introduced into the rectum and, aided by the hand-making pressure above giving a plane of resistance, is enabled to examine minutely the posterior surface of the uterus, and all surfaces of the ovaries and the tubes, detecting the slightest adhesions binding these organs down. The examination under anæsthesia is a matter of the utmost importance, and not sufficiently appreciated. Without anæsthesia the most accurate examinations are impossible, it is therefore a *sine qua non* to the diagnostician.

The Conservative Treatment of Pyosalpinx.—DR. C. KOLLOCK, of Cheraw, S. C., followed with a paper on this subject. He said, in cases of pyosalpinx, much caution and a very careful and rigid examination are called for to determine the cause of the presence of pus, the length of time it has been there, and the condition of the walls of the tube in which it is found. Attention should also be given to the peritoneum and ovaries, but above all, there should be the strictest inspection of the endometrium, a disordered condition of which contributes much to the production and continuance of pus in the tubes.

Within a year or two changes have been made in the treatment of pyosalpinx, and conservatism now enters largely into its management. Men of high position in the profession are more decidedly agreed that a moral obligation rests upon us to relieve patients without the sacrifice of any organ, or part of one, when this is compatible with safety. Recently Polk, Pryor, Krug, Boldt, and Dudley had reported to the New York Obstetrical Society a number of cases of pyosalpinx treated by the conservative method now in vogue. This treatment, when faithfully carried out by curettement and aseptic divulsion, has not only been successful in saving the tube and ovary on the non-affected side, but in several instances the diseased tube was entirely relieved of the presence of pus. That many cases of pyosalpinx have been accurately diagnosticated and radically cured without the mutilation of any part of the sexual organs, is well authenticated. Dr. Kollock's experience, while limited compared to that of others, has been sufficient to convince him that the conservative system of practice is bringing us to that period when the mutilation of women, once supposed to be necessary, should cease.

Dr. Kollock then reported a few cases of pyosalpinx which had fallen into his hands, the happy termination of which had placed him under obligations to the pioneers in the conservative treatment. All but one of four cases were relieved entirely without resorting to cœliotomy.

DR. GEORGE J. ENGELMANN, of St. Louis, Mo., emphasized the importance of administering an anæsthetic in examining patients with pelvic inflammatory disease, before serious operative procedures are entered upon. It was not alone the anæsthetic, however, but the practised touch.

DR. JOSEPH PRICE, of Philadelphia, Pa., alluded to "dropsical tubes" as being a group of cases that puzzled the practitioner from a diagnostic point of view, and later surgically. Angry pus cases, while acute in their early history, were simply cases to be dealt with surgically. The attacks of pain were numerous, and fixation and tenderness characteristic symptoms. Everything in the pelvis was board-like, and when the surgeon got into the abdomen from above it was difficult to distinguish the uterus from the appendages, and *vice versa.* These were trying cases to deal with.

DR. JOHN D. S. DAVIS, of Birmingham, Ala., said he was in favor of evacuating pus wherever it was found in the body. There were, however, some cases in which pus could be removed without sacrificing the ovaries or tubes. As to the use of an anæsthetic, he considers it absolutely essential in the examination of doubtful cases, but where the diagnosis is plain it is not necessary.

DR. R. B. MAURY, of Memphis, said the great difficulty in the class of cases referred to by Dr. Kollock, in which there was pelvic inflammation associated with muco-purulent discharges from the uterine cavity, was to decide whether there is pyosalpinx. We have what is denominated endometritis, associated with it normal discharges and exudation in the pelvis, but Dr. Maury says he is at a loss sometimes, with the most careful diagnostic measures, whether under ether or without it, to form in his own mind an accurate picture of what the precise state of

things is in the pelvis. The rule he has laid down in the treatment of such cases is, if they are acute, non-puerperal, or puerperal, that the woman is entitled to a certain period of rest and other measures non-surgical, before deciding upon a radical operation.

Dr. W. E. B. Davis, of Birmingham, Ala., believes that, in the examination of patients, it is exceedingly difficult in some cases to make an accurate diagnosis without an anæsthetic. However, there were women who could stand the examination well without it.

In regard to endometritis, by judicious and careful curettement he believes many patients can be saved the necessity of an abdominal section. The trouble is that practitioners often denounce one procedure and uphold another without outlining the indications for a certain position. It is very important to cure the endometritis before it spreads to the tubes, etc.

Dr. R. M. Cunningham, of Pratt City, Ala., was inclined to look upon endometritis, in the vast majority of cases of disease of the appendages, as the *fons et origo* of the whole affair, and he believes that the operation which has been systematized and popularized by Dr. Polk is a safe, conservative, and reliable procedure. Furthermore, in the hands of the general practitioner it would relieve many of those cases that go to the laparotomist.

Dr. Bedford Brown, of Alexandria, Va., said the mobility of the uterus and its fixations were questions of great importance in diagnosticating pelvic inflammatory disease.

Dr. L. S. McMurtry, of Louisville, Ky., delivered a memorial address on Dr. Ephraim McDowell. He said it would seem almost a work of supererogation to submit an elaborate biographical sketch of McDowell, after the very complete accounts of his life and labors which have been contributed to medical literature by the late Professor Samuel D. Gross and the late Dr. John D. Jackson; yet, he presumed that no one would for a moment question the good taste and wisdom of perpetuating in the volumes of "Transactions of the Association" the names and deeds of eminent Southern surgeons who had done so much to lay the foundation, in America and the whole world, for the present splendid system of surgery and gynecology. This galaxy of illustrious names would be incomplete without that of McDowell, the father of ovariotomy and the pioneer of abdominal surgery, which in modern times has grown to such grand proportions.

In the year 1852, twenty-two years after the death of McDowell, Professor Gross, in his celebrated report on Kentucky surgery to the Kentucky State Medical Society, presented a sketch of the life of this eminent surgeon, with a detailed account of his original surgical work. This sketch was subsequently incorporated in Gross's "American Medical Biography," published in 1861.

After giving a sketch of his life, Dr. McMurtry then referred to McDowell's first ovariotomy, on Mrs. Crawford, and noted some points with reference to his operative technique. The operation in this case was done without an anæsthetic. The incision was made to the left of the median line, about three inches external to the rectus muscle, and was nine inches in length. After opening the peritoneum he first tied the pedicle with a strong ligature, and then cut open the tumor and removed its contents. He then divided the pedicle, it having been previously tied, and removed the sac. As soon as the incision was made into the abdomen, he states the intestines rushed out upon the table, and were not replaced until the operation was completed, which, he adds, "occupied twenty-five minutes." He then turned the patient upon the left side to allow all fluids to escape. He closed the incision with interrupted sutures and brought out the ligature attached to the pedicle at the lower angle of the wound.

In reporting his cases he omits mention of the material composing the ligature, and Dr. McMurtry had been informed by a friend of McDowell, now dead, who was a great deal about McDowell's office in his boyhood, that the ligatures used were made of shoemaker's thread and waxed thoroughly before being used. Adhesive strips and bandages completed the dressing, and in the author's language, he prescribed "a strict observation of the antiphlogistic regimen." The special features of the technique are: 1. The incision was made through the muscular layer of the abdominal wall, three inches external to the rectus muscle. 2. The cyst was not evacuated until after the pedicle was tied. 3. An effort was made to cleanse the peritoneum of fluids. 4. Drainage was sought, as well as escape of ligatures, by bringing the ligatures out at the lower angle of the incision. 5. The operation occupied only twenty-five minutes, expedition being more the result, doubtless, of the want of an anæsthetic than otherwise.

In his report of his second case he used this language: "I laid her side open." In his third case, however, he adopted the median incision, saying in his report of this case, "I changed my place of opening to the linea alba." In all of his cases he ligatured the pedicle before separating the adhesions or tapping the tumor. In his third case he mentions that the ligatures could not be released for five weeks, at the end of which time the cord was taken away.

Afternoon Session.

The Incision in Abdominal Section—How to Close It—Post operative Complications about It.—Dr. Joseph Price, of Philadelphia, read a paper on this subject. He said the question that most vitally concerns surgical and gynecological work was, How can the mortality be reduced? Surgical judgment and surgical fingers repeatedly determine the issue of life or death.

The Incision.—We have nothing from which we can ever approximately determine to what extent the length of the incision influences the mortality. The statistics of comparative results would not prove satisfactory, for the reason of the entry of so many other compromising elements—adhesions, their character, extent, and locality. That the incision exercises a greater influence than is generally recognized or admitted, he entertained little doubt. As to length, no rule of mathematical certainty could be laid down. In his own experience he finds the balance of both convenience and safety to lie with the short incision. The short incision narrows the limits of hemorrhage. It is safe to begin with a small incision, and where the size and character of the tumor or complications present require a larger one, it can easily be made. Very much abdominal work can be done through an opening admitting only two fingers. The reliance of the abdominal surgeon must be largely in educated fingers. In the majority of cases an operation can be done through a small incision without the operator or spectators seeing viscera. Universally adherent, irreducible, or solid tumors require a long incision for delivery, and for dealing with complications that can only be dealt with through a long incision, those beneath and on the sides of tumors. In the majority of cases, to so enlarge the opening as to obtain a view of the parts, we augment the risk of ventral hernia and provoke tedious convalescence.

The importance of a perfect closure of the incision has only recently received that attention it deserves. The effort should be to approximate as nearly as possible normal conditions, anticipating and dealing with all existing or possible complications with scrupulous minuteness and care, thus guarding against those accidents which are too frequent. He would not pretend to suggest uniform procedures to be carried out in all cases, as each operator has his own way and does his own work best that way, and it would not be possible for him to apply the methods of others safely and successfully without special training. He is satisfied that the exposure and manipulation of the incision, as well as the peritoneum, is harmful. Incisions bathed in pus and filth, and freely manipulated, often refuse to unite. Suppurating wounds are largely due to careless closure or to tight sutures, including too much tissue. Tight suturing is too common, and has

destroyed life in many feeble subjects. Suppuration due to tight suturing and stitch-hole abscesses, in all sections, where they do not result fatally, prolong convalescence. Cases were cited in point.

Through and through suturing including all structures, more of the central structure than skin or peritoneum, with either silkworm gut or pure silk, give and continue to give, the most satisfactory results. Silkworm gut seems to be the favorite material at present, as it possesses all the natural and essential qualities of a suture, is small, strong, and non-irritating—the three cardinal virtues of all good suturing material. Terracing sutures has nothing to recommend it; on the other hand, Dr. Price believes it prolongs an operation. Retraction of skin and peritoneum by the introduction of silkworm sutures, gives inclusion to more central structures and the least possible tension on skin and peritoneum. Keith, Tait, and Bantock, all use a fine straight needle, and their work has been about perfect. The use of large, curved, cutting needles is harmful, their use primarily favors hemorrhage, and secondarily stitch-hole abscesses.

Dr. Kelly thinks that long incisions have little or nothing to do with mortality, except in an indirect way. Where there are many adhesions a long incision is necessary. Handling of the viscera in pre antiseptic days increased the chances of suppuration, and consequently of peritonitis and death. The chances of infection he believes are greater with a long incision. Hernia comes from improper closure of the abdominal wall, or the use of the drainage-tube weakening the abdominal wall at one of its points.

Dr. L. S. McMurtry, of Louisville, demonstrated his method of suturing on the board. He brings peritoneum to peritoneum, muscular structure to muscular structure, fascia to fascia, skin to skin, and says the least quantity of interposing material we have between the tissues that are to be brought together the better. He disagrees with Dr. Kelly that the drainage-tube is the cause of hernia after closing the incision.

Dr. R. B. Maury, of Memphis, favored the silkworm gut through and through suture. His experience covers nearly three hundred sections, and he has simply used the through and through suture. He has had almost no abscesses and the fewest possible number of herniæ, and which he says can be counted on the fingers of one hand.

Dr. T. J. Crofford, of Memphis, said it was considered that all herniæ resulting from abdominal section were due to failure to get union between the opposing layers of transversalis fascia. He uses a long curved needle instead of a straight one. With it he can put in stitches in one-third of the time he can with the ordinary needle. He has used it in upward of two hundred sections, and has not had a case of hernia to follow one of them. He has also had the fewest number of stitch abscesses.

Dr. Price, in closing, said there was an immense amount of theory about the matter of long and short incisions, and there was a tendency on the part of some to brush aside pre-antiseptic work. Notwithstanding this, however, some of the old back-numbers, or hayseeds so called, had as good results in their day as are obtained in some of our hospitals to-day. He urged great caution in the terracing method of suturing.

Is Operation Demanded in all Cases of Appendicitis? The Best Time to Operate.—This paper was read by Dr. A. M. Cartledge, of Louisville, Ky. He said that inflammatory conditions of the appendix are essentially intra-peritoneal lesions. Modern surgeons have an abiding faith in the surgical maxim that whenever pus is believed to be present in tissues or organs of the body, it should be removed; hence the new pathology of a very old and frequently fatal malady inspired surgeons to attempt some radical means of relief. Perfection in technique can only come from individual experience and a knowledge of the work of others.

The pathology of a disease is the only true key-note to its rational treatment. Probably the best classification of appendicitis is: catarrhal (simple); ulcerative (from tuberculosis from foreign bodies); perforating (from ulcerative perforation from strangulation, the result of twisting). This classification deals strictly with the changes occurring in the appendix, and should be considered apart from the peritoneal and other conditions which may ensue and cause well-marked variations in the clinical course of the disease. If the walls of the appendix give way in a mass of fibrous adhesions, the result of long-continued irritation, the pus which forms is rather securely encapsulated and may be days, weeks, even years finding an outlet. In fact, as is often the case, if the bacillus coli communis predominates and a few staphylococci are present, it may remain encapsulated unless it receives a new impetus of irritation. Cases were reported illustrating this point. Cases were also reported illustrating the part played by injury as an exciting cause in appendicitis, and the belief was expressed that a chronic form of unrecognized appendicitis existed prior to such injury.

We know more about the pathology of ulcerative or suppurative appendicitis than we do of the catarrhal form, because the cases not operated upon which recover are mostly called catarrhal. These are cases which progress with little pain, with very little fever, 101° F. as a maximum, and have a tumor which subsides. These cases are the pride of the poultice and the opium practitioner. Ulcerative appendicitis must be either tuberculous or traumatic, the trauma consisting of foreign bodies and enteroliths, usually the latter. The tuberculous would only give rise to acute symptoms as the result of cicatrization and stenosis, with distal distention, or secondary inflammation with pus organisms. Either of these results favor perforation. This is essentially the chronic variety, but will eventually lead to perforation, probably in the ways indicated.

When physicians come to view inflammations of the vermiform appendix in their proper light, the author said, the prognosis will assume a very different shade. We should consider any appendix once so affected as to deserve the name of appendicitis, whether from tubercle or trauma, a lastingly diseased structure, and the fancied cures are quiescent states the results of very easily recognized conditions. If we could trace our so-called first-attack cases of appendicitis through subsequent ones, we would say the progress, not only as to health and comfort, but as to life, is bad, very bad. A man has the trouble three, four, or five times, apparently recovers—all counted as cures probably by different physicians. Finally he dies in an attack; the death is counted but once, and sometimes not then; for if, as is often the case, death results from the rupture of an unrecognized appendicial abscess, or from diffuse peritonitis after perforation, the chances are that the cause is never suspected, and death is recorded as occurring from peritonitis. Every case of appendicitis, not barred by surgical limitation, should be operated upon. The best time, provided the symptoms are not too urgent, is after the bowels have been thoroughly moved.

Dr. Joseph Price agreed with the author of the paper that there was but one treatment for appendicitis, namely, removal of the appendix. He considers it a murderous disease, to be classed with extra uterine pregnancy. Both demanded prompt surgical treatment when first discovered. He recommends, in acute cases of appendicitis without pus, removal of the appendix and freeing of the inflammatory adhesions.

Dr. G. W. Long, of Richmond, opposed operation in every case of appendicitis. Autopsies had shown that one-third of the human race had at some period of their lives had this disease. That being true, and considering the small per cent. of deaths, it naturally follows that appendicitis does not always kill, even if it is not operated on. In the catarrhal form, he thinks there is no reason for operating. In the perforative form we should operate. In the perforative form without adhesions we should also operate as soon as we make a diagnosis.

Dr. William T. Briggs, of Nashville, had been operating on every case of appendicitis that came into his hands where the diagnosis was clearly established, and he has had no occasion to regret it. He has operated in cases where there were perforative symptoms, and in others where there were none; in some where there were, and in others where there were not, suppuration, and still others where there was, and where there was not, sloughing.

Dr. C. Kollock, of Cheraw, S. C., had seen a great many cases of appendicitis. He recommends saline treatment in the first attack, but if there is a recurrence he invariably operates, and has never lost a case.

Dr. W. E. B. Davis, of Birmingham, Ala., had never operated on one of these cases without advising a secondary operation for removal of the appendix, telling the patient that the disease would recur. He thought, however, there were many cases that got well without operation, but it was a difficult matter to tell in what cases we should not operate.

Dr. Hunter McGuire, of Richmond, said he had many a time operated too late, but never in his life had he operated too soon. If, after free and full purgation with salts, administered by the mouth and rectum, the symptoms are not relieved, he thinks the time for operation has come, and does not hesitate to operate. He had never known the mere operation in the hands of skilful surgeons to kill or add to the danger of the patient's life. Appendicitis kills, and it is put down to inflammation of the bowels, peritonitis, or something else.

Dr. Louis McLane Tiffany, of Baltimore, said that the cases that require consultation should be divided into those that are going to live without bursting, and those that will rupture inside of three days, and then next to the question of making the diagnosis was to get the consent of the family physician. The cases that are dangerous die within seventy-two hours, before the family physician is able to make a diagnosis.

Dr. Willis F. Westmoreland, of Atlanta, favored early operative interference. He had never been called in sufficiently early by the general practitioner to operate, consequently the patients died promptly. It was necessary to educate the general practitioner to send cases to the surgeon for operation earlier.

Dr. W. B. Rogers, of Memphis, had seen cases of catarrhal, ulcerative, and gangrenous appendicitis, but had never been able to make a diagnosis until he got inside. The symptoms of the disease were the same as those of peritonitis, localized at the site of the appendix. In the cases he had operated on, he was satisfied that no medicine would have effected a cure.

Dr. Cunningham agreed with Dr. McGuire, that an operation should be done in case medical treatment failed to afford relief.

Dr. Riggs, of Birmingham, advocates operation in the recurrent form of the disease during the interval of attacks.

Dr. James A. Goggans, of Alexander City, Ala., had operated early on seven cases, all recovered.

Second Day, Wednesday, November 22d—Morning Session.

Intra-cranial Neurectomy, and Removal of the Gasserian Ganglion for Intractable Neuralgia, with Report of Cases.—Dr. Louis McLane Tiffany, of Baltimore, read a paper with this title. Within the past few years intra-cranial excision of portions of the fifth nerve, together with removal more or less complete of the Gasserian ganglion, has been done for the cure of intractable trigeminal neuralgia. The credit of first doing such an operation rests with Rose, of London, after whom is to be mentioned Novaro, Horsley, Andrews, and others. Dr. Tiffany then gave an account of Hartley's method, which appears in the *Annals of Surgery* for May, 1893.

It has been Dr. Tiffany's fortune to operate four times for excision of intra-cranial portions of the fifth nerve. In each case the reason for the operation was trigeminal neuralgia not due to disease of the brain. Hartley's method was followed. All cases recovered from the operation and were relieved of neuralgia, it is to be hoped, permanently. The operations have been long, but recovery in each instance has been rapid and complete. In all cases the wounds healed at once, except in the fourth case, where the patient scratched the recent wound and infected it.

It is worthy of note, that in the case of the patient upon whom operation was performed fourteen months ago, there is less anæsthesia and more perverted sensation than in the other cases. Sensation seems to have returned somewhat, and it is interesting to speculate as to whether sensation will ever completely return, and if so, by what route. Preservation of the sense of taste after division of the second and third divisions is to be noted. That the power to recognize heat and cold exists in a region rendered devoid of ordinary sensation by nerve section, is of much interest, and recalls an observation made some time since, that a conjunctiva insensitive from the local application of cocaine still appreciates the difference between heat and cold.

When dividing the third division of the nerve in case four, Dr. Tiffany believes that he isolated and recognized the motor branch before dividing it. Not having provided himself with a sufficiently long and fine electrode, he could not prove the accuracy of his opinion by electric stimulation, and therefore divided everything. By leaving intact the motor branch, the patient would not have food collect in the cheek of the paralyzed side, and in future operations an effort should be made toward this end.

The Vaginal Route as Compared with the Abdominal for the Removal of Pelvic Viscera.—By Dr. George J. Engelmann, of St. Louis, Mo. He called attention to the advantages offered by the vaginal route for many of the operations, and especially some of the more dangerous now practised by means of abdominal section, for the removal of the uterus and appendages, and especially in suppurative cases with multiple pus-centres. It was vaginal hysterectomy for malignant disease of the uterus which first paved the way to the more extended use of the vaginal route for such operations. He pays a fitting tribute to American surgery, when he said that this, like other of the great operations of recent times, emanated from a Southern surgeon. In New Orleans, in 1846, Dr. Dubourg fully described this operation, which he had repeatedly practised with success since 1829, but it was again forgotten until revived within the last decade, and vaginal hysterectomy for malignant disease of the uterus is now everywhere an accepted operation, which is rendered especially safe and rapid by the *forcé*-pressure method of Péan; and it was the French surgeon who extended the field to the removal of other contents of the pelvis by the vaginal route, resorting to the piece-meal removal, the *morcellement*, for the extirpation of masses too large to be delivered in their entirety through the vaginal opening. The leaders in this new departure are Péan and Sigond, of Paris, Doyen, of Reims, and Jacobs, of Brussels, and followed for the present by the French school only. In Germany and England these operations are practised but little, if at all, and in this country the vaginal route is limited to the removal of the uterus, vaginal hysterectomy for malignant disease, and perhaps for prolapse or inversion. Isolated cases of removal of prolapsed ovaries resting on the vagina, or small and conveniently situated ovarian cysts through the vaginal opening, are now and then performed everywhere, but this is a very different matter. The surgeons who are leading in this field vary somewhat in method, and in the extent to which they apply it, but the vaginal route now serves them, (1) for hysterectomies for the removal of malignantly diseased uteri, and moderately enlarged uteri, for hysterectomy by *morcellement*, for uterine tumors which do not extend above the navel. (2) For the bilateral removal of appendages with diseased uteri. (3) For the treatment of pelvic suppuration of all kinds.

(4) Dr. Jacobs even prefers the vaginal method for certain cases in which the appendages of one side only are to be removed. Péan limits hysterectomy by morcellement to benign growths, and to all cases of pelvic suppuration treated to day by a laparotomy; while Sigond still prefers laparotomy when operation is indicated in unilateral cases, above all in unilateral salpingo-ovaritis when non-suppurative. The indication given by Terrier and indorsed by Jacobs is, first, the resort to the vaginal route for cases in which suppurative pelvic peritonitis has returned, if laparotomy has already been practised; secondly, suppurative pelvic peritonitis, with fixation of the uterus and multiple pus sacs, while laparotomy may be resorted to in enucleable non-suppurative salpingo-ovaritis.

The advantages of the vaginal route are the rarity, if not absence, of shock in cases in which we would have to treat it if the abdominal method were resorted to; rapidity of operation, by reason of the forcé-pressure method, and the total absence of ligature or suture, nearness of the parts to the finger, and in aggravated pus cases guarding of the abdominal cavity from the pelvis proper or the field of operation by the adhesions and inflammatory products which form a perfect barrier. It seems the natural route for the reaching of parts below the pelvic brim. There is, after operation, perfect drainage established by the forceps and the dressing per vaginam, so that there is no possible stagnation. Recovery appears to be more rapid and more satisfactory than by the abdominal method, the forceps being removed in forty-eight hours, the patient sitting up on the fifth or sixth day, and moving about between the tenth and fourteenth, when cicatrization is completed.

Trephining as a Cure for Traumatic Epilepsy, by Dr. John T. Chapman, of Bessemer, Ala. He operated on a boy, who, some years previously had received an injury of the head by a blow fracturing the parietals. Three weeks after the injury he began to have epileptic convulsions. At the time Dr. Chapman saw the patient the convulsions had become more frequent, and with greater force. Two buttons of bone were removed at the seat of injury; there was considerable pressure from depressed bone; the membranes were hard and indurated. The indurations were cut out and edges of dura brought together by continuous suture. The wound healed by first intention. For two months after the operation the patient continued to have convulsive seizures, but they gradually grew less until they ceased. The operation was done four and a half years since. The patient is now eighteen years old, weighs 170 pounds, and works in a foundry. He believes the doctrine that depressed fractures of the skull without symptoms require no operative interference is in a measure responsible for many of the unfortunate sequelæ of head injuries.

Afternoon Session.

Dr. Kollock, First Vice-President, took the chair, and President Brown delivered his annual address. He selected for his subject

The Southern Surgical and Gynecological Association—Its Origin, Objects, and Aims.—He said six years ago a small band of earnest, brave, and determined Southern surgeons assembled in the city of Birmingham, Ala., with Dr. Haggard, as President, amid doubts, anxieties, and misgivings for the future, to found and organize this Association, and in this effort to build up an organization that would meet the advanced requirements of the times, and that should rank in point of talent, efficiency, and high-toned character with the other great institutions of the kind in this and other countries. But notwithstanding the stupendous difficulties encountered, the vast labor expended, and the many obstacles in our path, the Association stands to-day a monument of energy, enterprise, and indomitable will-power. Dr. Brown then traced the growth of the Association and referred to its work.

Some Remarks on the Surgical Treatment of Epilepsy.—Dr. B. E. Hadra, of Galveston, Tex., read a paper with this title. He thinks that modern researches promise to divest even the so-called genuine epilepsy of its mysterious functional character, and to make it consequently more accessible to surgical interference. Among the points he would mention as having to be cleared up is the deficiency in the knowledge of the great number of brain-centres that must exist. As an instance he mentions the unquestionable fact that very often the stomach or the intestines give the initial symptoms, but because we do not yet know these centres, and because the signals are very abstruse, it may easily happen that another group of muscles, which only secondarily become excited, is charged with giving the signal. The next point is to find the real seat of the primary morbid changes in the brain, which is not necessarily the focus belonging to the initial signal. Topographical and electrical localization map out only the latter. He insists that the induced current used in a different way will be all we may desire for such a purpose. It must be applied over a large area of the exposed cortex until a spot is met from where a certain group of muscles not only can be made to contract, but from where a regular epileptic fit can be elicited. This spot must be the locality of the morbid substratum, whether it coincides with the physiological focus of the muscles giving the signal or not; consequently this spot must be removed.

He concludes his paper with the proposition to have uniform blanks for operations on the brain, and to have the questions filled by a critical friend during the operation, in order to avoid neglect and to prevent post-operative imagination from playing its obliging part in the adjustment of the historical data.

The Management of the Epicystic Fistula. — Dr. John D. S. Davis, of Birmingham, Ala., read a paper on this subject. He said the epicystic surgical fistula is the title given to a suprapubic fistula into the bladder created by the surgeon for exploration, intra-vesical treatment, and drainage—a fistula which, acting as an artificial urethra, is capable of giving free access to the inside of the bladder for cystoscopic exploration, to provide a ready, convenient, and comfortable means of emptying the bladder at will, and give the surgeon a competent opening into the viscus for intra-vesical applications. It constitutes an essential element in the speedy and complete evacuation of the contents of the bladder in all epicystic operations, and imitates nature in the restoration of its own continuity as the pathological changes within the bladder subside.

Permanent after-drainage in all intra-vesical operations cannot be necessary, but is highly essential to secure good and sufficient drainage until the paravascular tissue is disengorged, the cystitis is relieved, and the urine becomes normal and passes per urethra unobstructed. And until this end is attained complete artificial arrangement for the escape of the contents of the viscus must be made. In such cases of prostatic hypertrophy, or malignant growths, when removal of the obstruction is impossible or contraindicated, the epicystic surgical fistula is clearly indicated and essentially necessary.

Dr. Hunter McGuire, of Richmond, reported a series of cases of "Tuberculosis of the Bladder."

Personal Experience in the Operative Treatment of Stone in the Bladder.—Dr. William T. Briggs, of Nashville, followed with a paper on this subject. He said living in the midst of the stone region, and in a city whose celebrity as a surgical centre has been long established, it has been his fortune to have met with an unusually large number of cases of vesical calculi. He had had two hundred and eighty-four cases of stone under observation during the past forty-two years. The Southern States had furnished the greater number of the cases; a few had come from Western States—Tennessee, Kentucky, and Alabama have supplied the largest number; but Georgia, Florida, Texas, Arkansas, North Carolina, Virginia, Missouri, and Illinois have contributed cases.

Two hundred and seventy-two of the number were males, twelve females. One hundred and fifty-three were children, or youths under twenty years of age; one hundred and thirty-one were adults varying in age from twenty-one to eighty.

In operations for stone he had not restricted himself to any single method. He had done all the operations, both cutting and crushing, and he considers it very fortunate that surgery has so many resources for the relief of this distressing and painful malady. The success of every method of operating largely depends on the preparatory treatment of the patient. The pre-eminent success of Dudley, Mott, and others was doubtless due to the judicious treatment employed in the preparation of subjects for the operation; and Dr. Briggs is sure that his own success has been greatly enhanced by a strict observance of the preparatory treatment.

In conclusion, Dr. Briggs said his experience in the surgical treatment of stone in the bladder would sustain the following propositions:

1. No method of operation is adapted to all cases.
2. Thorough preparatory treatment is essential to success.
3. Litholopaxy is *the* operation when the patient is an adult with a capacious and tolerant urethra with a bladder free from severe chronic cystitis and with a small or medium-sized stone or, if large, of soft consistence.
4. The suprapubic is the best operation for large and hard calculi.
5. The medio-bilateral should be chosen in all other conditions, because it is the easiest, safest, and best.

Hypertrophy of the Omentum in Hernia, with Specimen.—Dr. George A. Baxter, of Chattanooga, read a paper with this caption, and presented a specimen (congenital) from a negro, thirty-four years of age, which had existed until early manhood, about the size of a goose-egg. It was directly increased somewhat by working in a rolling-mill thirteen years ago, but has had a constant growth since that time, until it reached one-half or two-thirds the way to the knees, and became an unendurable nuisance. It was, therefore, removed, closure being made at the same time.

Treatment of Gunshot Wounds.—Dr. Willis F. Westmoreland, of Atlanta, read a paper with this title. The first of this class of injuries that he was called upon to treat was shortly after he had graduated, and it thoroughly convinced him of the fallacy of probing. He never uses a probe in a gunshot wound except as it may become necessary in the progress of a formal antiseptic operation. The probing rarely does any good beyond satisfying a morbid curiosity. Even if the wound is not infected by the probe itself, it allows the entrance of air. It destroys nature's occlusive blood clot, and in this way prevents prompt union.

(To be continued.)

Women Physicians in Turkey.—Judge Terrell, the United States Minister, has just gained a notable diplomatic victory. For several years the number of female physicians in Turkey has been increasing, notwithstanding the fact that Turkish law refused to recognize them as legitimate practitioners. Foremost among them have been the American missionaries, who have repeatedly won the highest praise for their self-denying work. They have, however, been greatly hampered by the fact that they could not secure regular Turkish diplomas, and the various foreign embassies have been very earnest in their efforts to gain for them official recognition. Hitherto they have failed entirely, but at last Turkish conservatism has yielded, and to the American Embassy belongs the honor of securing what neither Russian, French, British, nor German Ambassadors could gain.

Hydrocele.—Corrosive sublimate solutions (1 to 1,000) cause no pain whatever when injected, and invariably bring about permanent obliteration of the vaginal cavity. Where there is thickening, incision is better.—Troianofi.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

PUERPERAL SEPTICÆMIA AND ANTISEPTICS—DISCUSSION AT THE OBSTETRICAL SOCIETY—EPILEPSY AND DEFECTIVE REFRACTION—SIR ANDREW CLARK'S FUNERAL—DISAPPEARANCE OF CHOLERA—ARREST OF HARNESS—THE "INDIAN OCULISTS."

London, November 11, 1893.

There has been a discussion on "Puerperal Fever" at the Obstetrical Society, *à propos* of a paper by Dr. Hicks, who held that it is not yet clear whether the variations in intensity are due to the amount of the poison received, or whether the poison is accompanied by other poisons, or whether a new phase of growth of bacteria may modify the intensity. But the most important part of the paper gave an account of two groups of cases of extreme virulence, evidently conveyed in every case by the attendant or the nurse. In some cases the attendant has suspended his midwifery practice without preventing recurrence on resuming it, though the later cases were milder. It was suggested that time diminished the dose of the poison; but other speakers pointed out that time only dilutes the poison, while antiseptics destroy it, and one said that a woman would be safer to be attended by a man who had just done an autopsy or attended an infectious case, but who used all antiseptic precautions, than by a man who neglected these and merely ceased practice for a time. Then followed some talk about defective sewerage and some comparison of the cases with diphtheria which perhaps illustrates rather the imperfect perspective of medical knowledge of some of our accoucheurs, for Dr. Thorne Thorne has conclusively established what Sir William Jenner long ago made probable, that the drains have nothing to do with the spread of diphtheria. It is strange that just as Sir W. Jenner's essay is republished the exploded hypothesis should find support in a learned society. Happily the President, Dr. Herman, was up to date, for he remarked that sanitary conditions had been shown to have little or no relationship to outbreaks of diphtheria, and he did not believe that sewer gas caused puerperal septicæmia. Dr. Cullingworth also regretted the importance attached to sewer gas, and mentioned a case in which the drains had been relaid at great expense, and he afterward found out that the attendant had gone to the patient direct from a scarlet-fever case without even washing his hands. I wonder how that attendant would be treated by a jury to which the danger of doing so had been explained if he were charged with causing the death of the woman. One speaker suggested that it is not necessary to change his clothes if the attendant washes his hands in carbolic water, 1 in 20; but he was followed by a prompt repudiation of such a risk, and the remark that if clothes could convey erysipelas or scarlet fever, it is at least likely that they could do the same with the poison of puerperal septicæmia. Dr. Lewers pointed out that hospital accoucheurs attended labors after being called to infectious cases: but thanks to their antiseptic precautions, without disaster, and this statement was supported by others, notably by Dr. Horrocks, who said he once did Cæsarean section forty-eight hours after performing an autopsy on a case of rapidly fatal puerperal disease. The most scrupulous antiseptic precautions were taken and no harm resulted.

Epilepsy is a subject of sad interest to every practitioner, so I may notice that it came up at the first meeting of the Ophthalmological Society, when Mr. W. Dodds gave statistics of 100 consecutive cases. Their refractions compared with normal eyes showed considerable differences, and 75 were ordered to wear glasses. Of these 23 were lost sight of. Of the other 52 there were 13 who had no fits for periods of four to twelve months; 36 were certainly improved and 3 unbenefited. All the cases had had medical treatment also, but Mr. Dodds concluded

that the correction of any errors of refraction will sometimes assist in the cure or relief of epilepsy. Of course it is impossible to separate the effects of the medicinal from the optical treatment in these cases, and one speaker was unkind enough to provoke a laugh by stating that a myopic patient of his who had never had fits developed them soon after the correction of his myopia by glasses.

The funeral of the late Sir Andrew Clark takes place to day. The first part consists of a memorial service at Westminster Abbey, after which the remains will be conveyed to Essendon, where the lamented physician had his country-house. The two Royal Colleges will be represented by their most distinguished office bearers—those of his own college in their official robes. Mr. Gladstone, Sir J. Paget, Sir H. Acland, Sir R. Quain, Sir E. Sieveking, Mr. Hulke, President R.C.S., Dr. Russell Reynolds, and Dr. Hughlings Jackson are the pall-bearers, and a great number of eminent men will attend.

No case of cholera has been reported in the United Kingdom for the last three weeks, and we are congratulating ourselves that the danger has passed, at any rate for this year. Those countries which had imposed quarantine on vessels from our ports have now removed the restriction.

Harness, of medical battery company notoriety, has been arrested on a charge of conspiracy to defraud, and is out on bail.

The "Indian oculists" who performed such atrociously cruel operations under promises to cure the blind have, after a lengthy trial, escaped on the plea of their ignorance; but the judge warned them that on any future occasion they would not be able to put in such an excuse, as the trial must have shown them. Perhaps, therefore, no such sickening and heartless proceedings will be again ventured upon.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending November 25, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	17	4
Scarlet fever	70	6
Cerebro-spinal meningitis	1	3
Measles	170	0
Diphtheria	150	53
Small-pox	11	2
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

Anthrax Bacilli in the Mud of a Well.—Diatroptoff has succeeded in demonstrating anthrax bacilli in the mud taken from the bottom of a well near Odessa. An epizoötic of anthrax broke out on land where numerous flocks of sheep were pastured; several of the dead sheep were buried and the others removed to another pen several kilometres distant, and having a special watering pond. The infected pen was carefully disinfected, the walls being washed with sublimate, the earth raised to a depth of 25 centimetres, and replaced by fresh soil. On their return to the disinfected pen, the sheep, which had been perfectly well in the second pen, again began to be attacked by anthrax. A new change, with a second disinfection, was followed by a recurrence of the disease on their return to the former pen. The proprietor at last noticed that the epizoötic only recommenced when the water of this well was used—water avoided by the farm people on account of its brackish taste. When the well was filled up the epidemic ceased. The bacteriological examination of the water itself and inoculation of mice therewith gave negative results. The author sent for samples of the soil of the pen and of the mud at the bottom of the well from which the suspected water had been taken. No anthrax bacilli were found in the soil of the pen, but from the mud bacilli were obtained which killed rabbits and mice, their bodies presenting the *post-mortem* appearances of anthrax. Cultures made from their blood left no doubt as to the nature of these bacilli.—*British Medical Journal.*

Insurance of Opium Users.—Perhaps the most important evidence secured by the British Parliamentary Commission appointed for the purpose of investigating the opium question is that tendered by the management of the Oriental Life Assurance Company, which possesses what may almost be described as the monopoly of the native business in India. According to the testimony of the directors of that institution, no extra premium is charged to users of the drug, and this estimate of the risk seems to be confirmed by the surprising fact that during twenty years not a single claim has been paid for death which could have been attributed to the use of opium.—*The Tribune.*

A Bit of Official Wisdom.—The following paragraph is copied verbatim from a board of health report of a town not a dozen miles from Suffolk County. The lucid advice, as well as the English of this intelligent health official, are both worthy of notice: "Every person who is confined in a house owing to sickness and contagious diseases, should at all times be thoroughly covered with disinfectants, both externally and internally, to insure safety to themselves and to others, as in my mind a spread of the same is caused by carelessness on the part of people who know it all, and cannot be told by persons of experience."—*Boston Medical and Surgical Journal.*

Instances of Remarkable Fecundity.—When I was a resident medical officer in the Chester General Infirmary I knew an old lady in that city who was notorious as having been confined of twins fifteen times, besides some other single births. Her husband died lately, when his and his widow's lives were noticed in the local newspapers. I think that the old lady is still alive. She, poor soul, under some trying circumstances, lamented her lot—not that she had brought over thirty subjects to Her Majesty, but that thirty of them had not come in triplets, so that she might have been amenable to Royal bounty. Two other cases of interest in fecundity I met with during my tenure of office. I attended a baby, aged three months (who died) whose mother was then eleven years old. It was said that the girl-mother had been subjected to regular intercourse with a grown man since the age of eight years. As an instance of early conception the case was recorded in one of the medical journals. At Handbridge (just without the castle walls) I visited a fishwife who was nursing two babies—her own baby and her great-grandchild. The two intermediate generations I saw. The great-grandmother told me that she was sixteen when she was married, which, giving the same age to her daughter and granddaughter for the same events, would but make her forty-eight when I saw her.—J. Lloyd-Roberts in *The Lancet.*

Treatment of Typhoid Fever with the Blood of Immune Persons.—Dr. Hammerschlag records, in the *Deutsche Medicinische Wochenschrift*, No. 30, 1893, five cases in which the blood of patients who had recovered from typhoid fever was transfused to patients suffering from the same disease. Coagulation was hindered by adding four per cent. of oxalate of soda. Dr. Hammerschlag started on the principle that the blood of convalescents from typhoid fever contains a substance which antagonizes the typhoid poison. The results were not very definite. In one case a remarkable fall of tempera-

ture occurred in the night following the injection, but the following evening the fever returned. One case ended fatally. In three cases the blood was taken from patients only recently free from fever; in the other two cases the donors of the blood had been for from five to seven weeks free from fever.

Japanese Dentistry.—While Mr. Hubbard was minister to Japan, I visited that country and spent a pleasant week with him. One day I was troubled with toothache, and Mr. Hubbard took me to a dentist and explained to the saddle colored operator that I wanted the grinder extracted. I was placed in a bamboo chair and tilted slightly back. The dentist examined my teeth, talking volubly meanwhile to Uncle Sam's representative. Suddenly his thumb and forefinger closed on the troublesome tooth, and before I had the faintest idea of what was going to happen, he lifted it out and held it before me, smiling at the same time that vacant smile peculiar to the children of the Orient. "You were waiting for the forceps, were you not?" said Minister Hubbard with a laugh. "They don't use them here."—*Ohio Dental Journal.*

Medico-literary Activity in Russia.—During 1892 the number of medical journals appearing in Russia was 49; of these, 33 were published in St. Petersburg. Since the commencement of the present year the total number of journals has increased to 54; of these, 35 are published in St. Petersburg, 3 in Moscow, 7 in Warsaw (1 in Russian and 6 in Polish), 2 at Kharkoff, and 1 at Dorpat, Brjansk, Woronesh, Kasan, Kieff, Lipezk, and Tschernigoff respectively. In 1877 only 8 medical periodicals were published in St. Petersburg. A proportionate increase has taken place in the output of books and pamphlets; the number of these published in Russia in 1877 was 34; in 1892, 814. The literary activity of Russian medical men has developed in a striking manner in recent years; thus, while the number of books published in 1889 was 198, it has grown to 254 in 1890, to 324 in 1891, and to considerably more than double that number in 1892.

A Suggestion for the Treatment of Skin Diseases.—Dr. Alston, of Trinidad, is the inventor of an ingenious and possibly effectual plan of securing the entrance into the diseased integument of medicaments destined to combat the ravages of the parasite of tinea tonsurans. His idea, which he is unfortunately debarred from putting into practice owing to the scarcity of this particular parasitic disease in his parts, consists in the application over the affected area of a miniature air-pump *qua* cupping-glass, the which would, it is conceived, withdraw the air from the skin and render it more than usually porous. This having been done, and the cupping-glass being retained *in situ*, the medicament is sprayed therein, to be greedily absorbed by the thirsty integument.

Notes on New Remedies gives a list of one hundred and twenty-four new definite chemical products which have been introduced into more or less use in the last few years. Looking over the list we find we can easily scratch out all but twenty-six. The remainder are of no use or have equally good substitutes.

Cats and Diphtheria.—Dr. Edmund Gwynn, medical officer of health for Hampstead, has forwarded us the following case, which may be of interest at the present time, when diphtheria in London is on the increase, as showing once more that the disease may sometimes be traced to domestic pets: In February last a cat in a tenement-house situated in Fleet Road was noticed to be very ill and suffering from a bad swollen throat. On February 24th a child, aged five years, who had been nursing the cat, was sent into the Northwestern Hospital, suffering from diphtheria. The cat was subsequently sent away for treatment, but returned to the premises on July 22d, enticed back by the children of the house, with whom it was a great favorite; it was still in a bad state of health, and suffering from an unhealed abscess in the vicinity of the throat. On July 26th two other children were found to be affected with sore throat, and one was removed to the hospital suffering from diphtheria on July 31st. The father of the children, believing the cat to be the cause of the infection, destroyed and buried it —much to the indignation of the landlady—so that no opportunity was afforded of examining the animal.—*British Medical Journal.*

Army Medical School, Washington, D. C. (Session of 1893–94).—*Order of Duties.*—Daily, except Saturdays, Sundays, and holidays: 9 A.M. to 12 M.—Instruction in Pathological Laboratory; 1 P.M. to 2.50 P.M. —Instruction in Chemical Laboratory; 3 P.M. to 4 P.M. —Lecture. Saturdays: 9.30 A.M. to 10.30 A.M., at Hospital Corps School of Instruction, Washington Barracks —Practical Instruction in Litter and Ambulance Drill and First Aid; 1.30 P.M. to 3 P.M., in Riding Hall, Fort Myer, Va.—Practical Instruction in Equitation. The lectures will be delivered as follows: "Duties of Medical Officers"—Wednesdays, except November 22, 1893, and January 24, 1894; "Military Surgery," etc.—Thursdays throughout the course; "Military Hygiene"—Fridays, except February 23, 1894; "Military Medicine"—Tuesdays, November 7th and 14th, Wednesday, November 22, 1893, and January 24, and Mondays, January 29, February 5, 12, and 19, 1894.

Auxiliary Courses.—Bacteriology, General Sternberg —Mondays to and including January 22, 1894; Military Law, Major G. B. Davis, Judge Advocate, U.S.A.— Tuesdays in January, 1894; Comparative Anatomy, etc., Captain J. C. Merrill, Med. Dept. U.S.A.—Tuesdays in December, 1893; Medical Jurisprudence, Dr. Robert Fletcher, F.R.C.S., Eng.—Tuesdays in February, 1894 (except the 27th); also Friday, February 23d; Parasites in Man, Professor C. W. Stiles, M.D., Department of Agriculture—Tuesdays, November 21 and 28, 1893. Due notice of any change of programme will be posted on the bulletin board —Walter Reed, Capt. and Asst. Surg., U.S.A., Secretary of the Faculty.

Neurectomy in Spasmodic Torticollis.—Gardner and Giles, in a paper on neurectomy in spasmodic torticollis and retrocollic spasm, report two cases, one of spasmodic torticollis, the other of retrocollic spasm without torticollis, which were treated by exposure and partial resection of both spinal accessory nerves and subsequent division of the posterior branches of the second and third cervical nerves. This treatment was completely successful in the first case, nearly five years having elapsed since the last operation; in the second case it was followed by cessation of all bad symptoms, save some trifling spasmodic movements of the deep rotators of the left side, which it is anticipated will be completely cured by another operation. Gardner, who had charge of these cases, claims precedence over Keen with regard to section of portions of the posterior branches of the second and third cervical nerves, having performed this operation a few months before it had independently been thought out and practised by the latter surgeon.

Surgical Significance of Dust.—The interesting editorial of Warbosse (*Boston Medical and Surgical Journal*) in which he describes at length the important work of Hægler, deserves a careful perusal. The article is too long to report in detail. The results reported have an important relation to operative work and wound treatment. The work seems to show that the important factor in atmospheric infection is dust; that this contains the germs; that air in a room unagitated contains few germs; that the atmosphere of an unclean room in a state of rest is freer from germs than that of a comparatively clean room in a state of commotion. Dry dressing and dry treatment of wounds allow a greater distribution of germs into the atmosphere than moist ones. It is true that the danger of infection from air containing pathogenic microbes is much less than from other sources.

Still, it is of enough importance to be considered when one is striving for complete asepsis. Hence attention should be paid to diminishing or eliminating the harmful effects of dust. Also to prevent the conversion of infectious material into dust, as by the dessication of pus, agitation of dry discarded dressings, or in similar ways. The methods proposed for the removal as far as possible of this liability of infection during operative work or the dressing of wounds were to avoid agitation of the air at such times or to precipitate all dust by charging the atmosphere with moisture, so that during its precipitation the dust is carried down with it and the air is thus cleared as during a shower. The moist surface thus produced holds such precipitated dust fast for a time, and prevents its renewed circulation by air-currents.

The Physician the Best Confessor.—In her little work entitled "Pensées," the Queen of Roumania writes: "It is better to have a physician for a confessor than a priest. You tell the priest that you detest mankind. He answers, 'You are not a Christian.' The physician gives you a dose of rhubarb and you love your fellow-being. You tell the priest that you are tired of living. He answers, 'Suicide is a crime' The physician gives you a stimulant and you immediately find life supportable."

Should Impotence be Treated?—The answer to this question, as given below by Dr. W. F. Waugh (*Times and Register*), will strike every reader as wise, honest, and perhaps timely. Dr. Waugh says: "I mention this case to emphasize the point I have called attention to more than once, that impotence is unusually conservative; and that it is only in exceptional cases that it should be treated by a conscientious physician. If we ask ourselves the question in every case of impotence: 'Should it be cured?' in the vast majority of cases the answer must be another negative. I am well aware that this means the loss of our patient's custom in many cases, but the true physician can better afford to lose a patient than to lose his own self-respect, by pandering to lustful appetites when we know they will be indulged to the detriment of the individual. This must be plainly stated to the patient; no half-way measures are possible. To give placebos is to surely lose the confidence of your patient; who may respect a manly refusal, but never a shuffling, half-hearted, or pretended acquiescence in his wishes."

Hypnotism in Court.—The judicial authorities in Holland decided recently to have a suspected murderer hypnotized in order to extract evidence from him as to where the bodies of his alleged victims might be found. The law in that country allows this to be done to persons on trial in order to extract evidence from them which they will not give when awake. It says that any knowledge of the crime which may be thus derived shall not be used to the prejudice of the accused, but it is scarcely probable that advantage should not be taken by the prosecuting lawyers of the facts so brought to light.

Chronic Alcoholism may be attended with symptoms resembling those of general paralysis, but those due to the action of alcohol are not progressive if the alcohol be withheld, while those of general paralysis continue to a fatal issue. The lesions of chronic alcoholism also most closely resemble those of general paralysis, but careful examination shows that the morbid changes fundamentally involve the intima of the vessels, while in general paralysis it is especially the adventitia that suffers.—*Medical and Surgical Reporter.*

Calomel in Diphtheria.—Dr. W. F. Hani, of Elkhart, Ind., writes to say that Dr. W. H. Daly, of Pittsburg, does not advocate anything new when he advises calomel in diphtheria. Dr. Hani says that he has used it with success for many years, as have many of his medical acquaintances.

Mortality of Russia.—The annual report upon the health of the Russian empire during the year 1890 has just been published by the Medical Department of the ministry of the interior. The total population in 1890 was reckoned at 116,652,610; the birth rate was 46.1, and the deaths 33.5 per 1,000. The natural increase in the population was 12.6 per 1,000. These figures show a marked falling off in the natural growth of the population. In 1887 it was 15 per 1,000, in 1888 it was 16 6, and in 1889 it was 14.3 per 1,000. The figures are approximate only. No general census has been taken since 1857, and the population in subsequent years has been obtained by a calculation based mainly upon the "natural increase" or preponderance of births over deaths. In some parts of Russia (for example, the territories in Central Asia, acquired since 1857) the inhabitants have never been counted, and their numbers have only been estimated by indirect means. A fresh census is, it is stated, to be taken this year. The death-rate in European Russia in 1890 was 34.2 per 1,000. The corresponding figures in the years 1887, 1888, and 1889 were respectively 31.8, 31.4, and 33 4 per 1,000. The increase in death-rate in 1890 is attributed to the greater prevalence of typhoid fever, whooping-cough, measles, phthisis, dysentery, cholera nostras, gastro-intestinal catarrh, and some other diseases, and to the epidemic of influenza.

Diagnostic Threatenings.—In matters medical, as most things else, our fears are frequently but chimeras; and in no branch of the science, as both profession and people can attest, is this better illustrated than in diagnostics. Nothing, perhaps, is more common with some physicians than to threaten their patients with evils that never materialize—a practice that works incalculable harm to all concerned. Smith is "threatened with pneumonia;" Jones' wife, "with typhoid fever;" Brown's baby, "with measles," "meningitis," or "mumps;" and so on till both patient and family are on the tenters, the whole neighborhood agog, and the doctor's end apparently attained. At times, indeed, these threatenings are the convictions of an honest, though indiscreet, attendant; but oftener, no doubt, they indicate the craftiness of one who would either conceal ignorance or further selfish interests. There is hope for the former, for he may yet learn the language of disease, and appreciate the value of reticence. His threats simply mean that he thinks a certain disease exists, but, as the symptoms are not plain to him, is not quite sure of the diagnosis. Most, if not all, intelligent practitioners know, of course, that one can be threatened with, and still escape, the exanthemata, pneumonia, enteric fever, and other specific diseases, although we have in mind one who has threatened his patients so much that he is at last fearful himself; and thoughtless statements to the contrary are to be counted a mere *lapsus linguæ*. The position of the latter—the pseudo-diplomat—is, however, in his opinion, impregnable. If the prophecy be fulfilled, he was the prophet; if not, he prevented it; and, whatever happens, he poses as a mighty man, receives the plaudits of the crowd, and gathers much gear. His success is but ephemeral, however, for, like everything unreal, his methods cannot stand the test of time. He is watched; confidences are exchanged; a better man is consulted; comparisons unfavorable to the suspected are made; and thus is he shorn of his glory. He may, as in a case known to us, fall a prey to the malingerer, and then his defeat is a veritable rout. An adept at "breaking up" all manner of diseases may flourish for a season, but he will oftener succeed in breaking down the confidence of the public. If he would succeed, the physician must observe much, think more, and reserve most; and the better balanced the man of medicine, the more will perception, reflection, and discretion be found to enter into his composition.—*Massachusetts Medical Journal.*

Weber's Canalicular Knife.—Dr. W. L. Bullard, of Columbus, Ga., writes to say to the many readers of the MEDICAL RECORD, and particularly to those who do eye surgery, that they will find Weber's canalicular knife a most serviceable auxiliary in performing tenotomies for the correction of the various forms of heterophoria.

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Original Articles.

THE DIETETIC AND HYGIENIC MANAGEMENT OF CERTAIN TYPES OF OCULAR DISEASES.[1]

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THE literature of the dietetics of ophthalmic practice is exceedingly meagre. One reads of the treatment of ophthalmic diseases to find only a bare reference to diet as playing any part in their management. English text-books on ophthalmology lay more stress on this factor of treatment than those of any other nation. The reason of this is either that cachexia plays so large a *rôle* in all diseases in England, or that good food, and a liberal supply of it, are regarded as essential factors in the treatment of disease. Whatever be the reason, it is certainly the fact that English ophthalmological literature, and especially that of the text-books, argues for discrimination and liberalism in diet. If one goes carefully through the complete German text-book of seven volumes, edited by Graefe-Saemisch, the items referring to the dietetic management of chronic and systematic diseases of the eye are either neutral in character, or so general as to fail of proper discrimination; and they are usually relegated to the end of the chapter, as if of little or no importance.

The purpose of this paper is to emphasize the necessity of a proper dietary in the management of certain forms of ophthalmic disease; not to individualize it over and above well-established means, the judiciousness of whose selection cannot be questioned.

A proper dietary is to be regarded as complementary, and not antithetic, to local treatment. A discussion of local therapeutics is purposely avoided, as not coming within the proper scope of this paper. On the other hand, its scope is not a consideration of the diet in acute and inflammatory attacks of various ocular tissues, as, for instance, a low diet in acute iritis, or a depleting diet in glaucomatous inflammation, or other forms of acute inflammation of the optic nerve; or, still more, the abstemious diet of cyclitis, panophthalmitis, etc.; but its chief purpose is to emphasize the necessity of alimentary and hygienic nutrition in *chronic* forms of disease of the cornea, iris, lens, vitreous, optic nerve, and retina, and in fugitive pains and neuralgias connected with the ocular region. The practitioner of ophthalmology knows that for certain diseases of the eye there are remedies whose action is almost specific, and whose success is always assured; but, at the same time, he knows well that routine treatment will not suffice to prevent a return of the same evil, nor ward off an idiosyncrasy due to vicious habit.

Before proceeding directly to a classification of the clinical types of ocular disease to be reviewed by this paper, with a view to the argument for special dietary, it is essential to have a clear understanding of the properties of elements of diet, with reference to their metabolism, and to their capacity as tissue-builders, and in this connection let us also remember that badly selected foods are the cause and promoters of diseases to an amount far beyond the usual calculation. What, then, are the *elementary principles* of the *perfect* and *complete* food of which the type is milk? In studying these principles we are obliged to enter somewhat the domain of physiological chemistry.[1] These elements are best represented by four classes:

I. The albuminates or proteins, or proteids, as they were formerly called. Examples of this class are albumin, fibrin, myosin, globulin, and casein, from the animal kingdom; gluten and legumin, from the vegetable kingdom.

II. The fats, or hydro-carbons, embracing the various animal and vegetable fats, oils, wax, etc.; the best example of this class is butter.

III. The starchy and saccharine elements used in food, called carbo hydrates; examples of this class are starch, and the sugars of cane, grape, and milk.

IV. Water, holding the minerals in solution, such as sodium and potassium chlorides, calcium and magnesium phosphates, iron, etc. While these classes play a separate chemical and physiological *rôle* in the system, there is no doubt that in tissue repair, calorification, and storage the members of one group may replace those of another; also, that perfect health cannot exist without the combination of all four classes.

The principal functions of food in the system, and the nutritive constituents are, in brief:

a. To *form* the tissues and fluids of the body.
b. To repair the *waste* of tissues.
c. To be *stored* for future consumption.
d. To be *consumed* as fuel.
e. In being consumed to protect tissues or other food from consumption.

The proteins, or albuminates, contribute to form tissue, as muscle, tendon, and fat, thus playing a large part in the chemistry of nutrition. They also serve as fuel for the production of heat.

The fats, or hydro carbons, form fatty tissue, not muscle, and they do this by being split up into simpler products by the agency of the cellular tissues; they also serve as fuel, and their potential energy or calorie-standard is great; but it must not be supposed that fat is the same easily combustible substance in the organism which it is without. The fats are sparers of albumin. It is well known that animals fed on lean meat lose in the albuminous constituents of the body; while under a diet of less meat, with a little fat, the equilibrium of metabolism, or the nutritive balance, is quickly established. The staying power of fat in muscular over-exertion was strongly maintained by Ebstein; and it is quoted in support of this theory that in the Franco-Prussian war of 1870 the German Emperor issued a daily ration of 250 grammes of fat bacon.

The carbo-hydrates, or starches and saccharines, appear to have much in common with the fats; but unlike the fats and albuminates, they do not enter as such into the structure of the tissues. They are converted into glucose, or grape sugar, and they immediately develop into heat and mechanical work. Pavy believes the so-called "amyloid substance" of the liver, or glycogen, is the result of the first conversion of the carbo hydrates, and that it is from this that fat is metabolized. In brief, the function of the carbo hydrates, or starches, in the organism, is to contribute to the production of heat, and to increase certain constituents of the body, especially albumin and fat.

The fourth class of foods, water and minerals, is in every

[1] Read before the Northwestern Medical and Surgical Society of New York, June 14, 1893.

[1] Yeo: Food in Health and Disease.

tissue of the body. Sodium chloride plays so important a *rôle* in the solids and fluids of the organism that its entire withdrawal from food would be fatal. Calcium phosphate is in even larger proportion in every tissue, while it forms more than half the bones. Of the other salts — sodium carbonate and bicarbonate, sodium and potassium sulphates, potassium chloride and magnesium phosphate—it is not pertinent to speak here. The two basic salts, potash and soda, have a different distribution in the organism, and cannot replace one another. The potash salts are found especially in the tissues, as the blood corpuscles and muscular fibre; and the soda salts in the interstitial fluids. Only one of these salts, sodium chloride, is introduced into the body added to dietary articles, while all the others are taken in as constituent articles of food.

Man, being an omnivorous animal, obtains his food from every source, and seeks other ingredients and compounds not in the four described classes, such as stimulants and condiments. While it cannot be properly said that these latter have a direct nutritive function, they do unquestionably play a useful *rôle* by stimulating the appetite, promoting and assisting digestion, and by acting on the peripheral nerves of taste and smell. For instance, alcohol does not form tissues, but it does serve as fuel. Tea, coffee, and meat extracts do not form tissues, nor do they serve as fuel, but have a various and definite action on the brain and nervous system.

It will not be out of place to devote some time to the consideration of various staples of food from both the animal and vegetable kingdom, as it is only by a proper appreciation of their chemical constituents as tissue-builders, as calorifiers, or as storage, that we can adapt them physiologically to the needs of ocular diseases amenable to, and dependent upon, a dietetic treatment. In the first place, the flesh of animals, or animal food, has this advantage, viz., that it furnishes the same chemical constituents as the bodies it is destined to feed. It is rich in albumin and nitrogen, and contains fat; it is usually more easily digested and metabolized than vegetables; it is easily cooked; it stimulates the senses of taste and smell, and contains the necessary alkaline salts and iron. On the other hand, foods obtained from the vegetable kingdom contain less albumin and fats than those taken from the animal world; they are not as rich in nitrogenous elements, and exist chiefly as carbo-hydrates, and, as a rule, contain little fat. The differences in these particulars are shown in Hoffman's well-known table of the percentum of nitrogenous constituents—fat, carbo-hydrates, and salts—in fat and lean beef, peas, wheat, and rice; but this table need not be reproduced here. It is an undebatable fact that vegetable foods are less digestible and less assimilable than animal foods.

It is unnecessary to touch upon the whole body of foods from either kingdom—of certain articles we may venture a passing notice. Fish, for example, affords an important part of animal food. In some varieties of white fish the albuminates, fat, and gelatine consist of nearly fifty per cent. of the animal; of their great nutritive value there can be no doubt; and with some nations fish constitutes almost the sole article of animal food. That it has acquired the reputation of being a so-called "intellectual" or "brain food" is due to the fact of its easy digestion by persons of quiet and studious occupations. Agassiz writes of fish as "refreshing to the organism, especially after intellectual labor," and adds, with an attempt at pleasantry, that "its use cannot turn an idiot into a wise nor witty man," but that it is "favorable to brain development."

Milk is the *complete* or *perfect* food, if there be one, and next to milk, eggs. The purposes of this paper will not permit a full reference to the advantages of a milk dietary in certain diseases of the eye, as its chemical and physiological characteristics are so well known to our profession. It contains the four classes of elementary constituents necessary to the complete alimentation of young life, and may be used for an indefinite period as the chief food for adults in different phases of disease. The casein, butter, lactose, and alkaline salts, form over thirteen per cent. of the milk itself, and all of them play an important part in the metabolism of digestion. Cream, kumyss, kefyr, buttermilk, and butter are useful articles of diet, and are of especial use as aids to nutrition in some of the lower types of non-inflammatory diseases of the cornea and sclera.

Eggs, like milk, furnish all the elements of nutrition in a concentrated form, and constitute another so called "complete" food. The white contains chiefly albumin, while the yolk exceeds in fat and solids. Eggs are easily digested if raw or lightly cooked, but when hard are very indigestible. The yolk of eggs should not be given as food to the patient suffering from gouty diseases of the eye, such as episcleritis, neuralgias due to corneal disease, certain forms of chronic irido-choroiditis, and choroiditis, or where these and kindred gouty diseases of the eye are associated with uric-acid deposits in urine of a high specific gravity as 1.030 +.

While eggs are a highly nutritious diet I do not believe they should be made a staple of diet in patients suffering from ocular diseases consequent upon albuminuria, such as retinitis, muscular asthenopia, muscular insufficiencies, styes, frontal headache, vitreous opacity, diffuse spots on the lens, etc. There are some persons who cannot digest eggs without developing toxic symptoms. Setting aside these cases of idiosyncrasy it is interesting to note the different results which have followed the ingestion of large quantities of raw, or uncooked, whites of eggs. Stockvis and Nussbaum found egg albumin unaltered in the urine after this experiment. Lauder Brunton failed to produce albuminuria after swallowing six raw eggs; Maguire's experiment with twelve raw eggs, and that of another observer, quoted by Grainger Stewart, with nineteen raw eggs in thirty-six hours, failed, both of them, to induce albuminuria.

Under the head of wines there are a few observations to be made of the highest importance. Important as they are—and I think that does not admit of discussion—I shall dispose of wines in a few words. From a dietetic point of view wines consist of alcohol, sugar, tannin, free acid, and ether. Dujardin-Beaumetz conveniently divides wines into four groups. I. Spirituous wines. II. Red or astringent wines. III. White or acid wines. IV. Sparkling wines. The spirituous, or *liqueur* wines, contain from fifteen to twenty-five per cent. of alcohol; they are too "heady" and too slow of elimination to be placed in a dietary for chronic invalids, with rare exceptions. The astringent wines contain tannin, and some of them, as the clarets of Bordeaux and Hungary, are very useful as tonics and tissue-builders in chronic diseases of the ocular apparatus associated with malnutrition. These wines contain from seven to twelve per cent. of alcohol. The best sparkling wines are the champagnes: when pure, these wines contain from twelve to fifteen per cent. of alcohol, act rapidly as a restorative and stimulant, and by their carbonic acid allay irritability of the stomach. Sir William Roberts has made some useful observations in regard to the action of wines on the digestive processes, and among them the following may be noted as of practical worth in the dietary of chronic diseases: Sherry, hock, claret, and port wines retard digestion to a large degree. This is due to the *acid*, and not the alcohol, contained in them. If they be mixed with an alkaline water, this disturbing effect is entirely removed. In his article on "Dietetics and Dyspepsia" he says that "alkaline table waters greatly mitigate, or wholly obviate, the retarding influence of these wines on the digestion of starch." He found that sherry retarded the time of complete digestion; and that sparkling wines impeded digestion less than still wines. To quote the same author in another article,[1] "those wines agree best and are most useful which are absorbed and eliminated from the system with the greatest rapidity." In any

[1] Food Accessories; their Influence on Digestion, Nineteenth Century, February, 1886.

case, where a light wine is prescribed in the dietary, it is always best combined with an alkaline table-water, as Vals, Kissingen, Lithia, etc.

The object of food is to build up tissue and to repair waste; to preserve a nutritive balance between bodily income and expenditure; to increase healthy activity and to prevent loss of weight. In this connection it would be of great interest to follow out different standards of dietaries in daily use in different classes of persons, and the different characteristics of individuals as to diet. These questions have to do with the diet of the soldier at home and in the field, the student at college, the artisan, the hospital and asylum patient, etc. But that is not to our purpose. It is for us to remember that in no branch of medical practice is judicious discrimination as necessary as here. As in other departments of practice, the selection of a dietary goes by fashion and in cycles. At one time limitation of diet was in vogue; while now, excess in diet is the thing, and both have received the convincing argument of scientific reasoning.

Of the Americans it may truthfully be said, they overeat; that the well-to-do and moderately circumstanced people indulge in an excess of meats and sweetmeats; while the very poor practise the worst economy in the purchase and use of their food.

It is of interest to study the tables of different observers with reference to the daily consumption and cost of foods of different nationalities and of different classes of workers of the same nation. The tables of Professor Voit, of Munich; Sir Lyon Playfair, of England, and Professor Atwater,[1] of Massachusetts, show a widely differing amount of food purchased and used by parallel groups of workers. I will instance only a few, taken from calculations of classes of workers in the United States, where wage-workers and people generally are better fed, do more work, and receive more pay, than in any other country. Classes, such as college students' clubs in New England, college football teams, machinists, brickmakers, and teamsters have a daily range of food consumption of from 661 to 1,695 grammes, or 1½ to 3¾ pounds avoirdupois. Roughly speaking, the protein and energy of the various American dietaries exceed those of the European dietaries by about fifty per cent.

Some interesting data might be introduced here, because they have a bearing on the practical utility of a strict dietary in large bodies of persons in health. The German army, when on a peace footing, had distributed to it, as the daily ration of the soldier, 633 grammes of food; on a war-footing, the daily ration was 681 grammes, an increase of 50 grammes, or about seven per cent. Bearing on this fact, it is well known that King William of Prussia, afterward Emperor of Germany, when his armies reached the French border, issued a daily ration of 773 grammes, which was regarded as extraordinary. The victories of Strasburg and Sedan soon followed. Frederick the Great's maxim was—"If you wish to build up the army you must begin with the stomach." Von Moltke, the great German strategist and commander, argued before the German Parliament that the greatest expense in the army budget lay in insufficient nourishment. The extraordinary ration of 773 grammes, just alluded to, provided 157 grammes of protein and 4,650 units of potential energy daily. The figures given for college teachers, lawyers, and physicians mean larger dietaries to intellectual labor than to ordinary labor, in Germany, England, and the United States. Strange as it may appear, the relation between food and intellectual labor has never been accurately studied experimentally, and the theory that large quantities of protein, fat, and carbohydrates are essential to successful mental effort has never been substantiated by figures. Has it ever been proved, ask the physiologists, that people of studious and sedentary habits demand large quantities of food, as we know is the physiological fact with those engaged in vigorous muscular exercise, on account of their muscle-waste and muscle repair?

[1] Professor W. O. Atwater: Food and Health, Transactions of the American Public Health Association, 1889.

Some of the tables indicate intemperance of eating on the part of the intellectual world, and, as to the use of beverages, the written and unwritten law of American life, defined both by social custom and by legislative edict, imply manifest intemperance.

I hope, Mr. President, that I will be pardoned for this digression into the field of dietaries of people in different classes of life. My apology is that they are not only interesting as studies, but they also serve to establish the purpose of the earlier part of this paper, that a knowledge of the essential elements and constituents of food is necessary to their judicious selection.

So far as the dietetic treatment of certain types of ocular disease is concerned, I shall, as previously stated, call attention to the advantages of a judicious dietary in chronic diseases of the cornea, sclera, iris, lens, vitreous body, optic nerve, and retina, and to certain affections of the lids, ocular muscles, and neuralgias. No attempt will be made to individualize these different anatomical theories by their histological elements, but to differentiate vicious habits, due to syphilis, gout, rheumatism, scrofula, tuberculosis, and malnutrition.

Syphilis may attack almost every tissue of the eyeball and its appendages. Its advances upon the cornea and sclera are so insidious as sometimes to escape observation, and it is frequently only after its invasion of iris and choroid that its true character becomes known. The interstitial deposits of fatty foci in the cornea, the gradual loss of the gelatine and chondrin of the sclera, and the bluish, or blue and white spots on the latter tunic, due to its thinning, and to the consequent demonstration of the hexagonal pigment of the choroid, are the common expressions of pronounced inherited syphilis. The iris in constitutional syphilis has a worn out, *blasé* look; a bright blue iris acquires a slate gray color; a brown hazel iris becomes a dirty green, and is sometimes intermixed with a dirty yellow. The anterior surface frequently has a swollen and nodular appearance, while the pupillary rim is irregular and festooned like an old-fashioned purse-string. The latter appearance is often present when plastic deposits have not attached the iris to the lens. In addition, the first evidence, so far as the iris is concerned, of an old syphilitic iritis, may be the presence of isolated spots of pigment on the anterior capsule of the lens. This revelation, by dint of the ophthalmoscope, has occurred over and over again to the observer, and has given the first evidence of unsuspected syphilis long since exhausted. The choroid and iris are the chief habitats of syphilis in the eye. If the choroid be attacked alone, it does not fall to the notice of any observer until the atrophic stage of disseminate choroiditis, with loss of vision in intermitting spots, has occurred. Pain is not a concomitant symptom, and vision gradually deteriorates until it is averted by specific treatment and diet. Such loss of vision implies central or equatorial choroiditis, and when it fully invades the macula lutea the eye becomes totally blind. Peripheral choroiditis always implies a limited invasion with only slight alterations in central vision. Patients with syphilitic choroiditis in the active stage rarely come under the physician's notice. It is only when material loss of vision has transpired, namely, after months or years of progressive choroidal degeneration, that advice is usually sought. Syphilis of the retina, while less common than choroiditis, occurs quite rarely as an isolated disease. Vision is much impaired, due to a stasis in the retinal veins, and a serous infiltration of the subretinal connective tissue. Idiopathic syphilitic inflammation of the optic nerve is very uncommon. Indeed, it is doubtful if syphilis of this nerve ever exists, except as consecutive to a gumma in the optic tract, and then it occurs as a descending neuritis, and is usually bilateral.

Syphilitic atrophy of the optic nerve exists as a factor of locomotor ataxy; according to Erb's statistics, it is probable that a very large per cent. of cases of locomotor ataxy have their origin in an old syphilis. Loss of the reflex of the iris and unequal size of the pupils, with optic nerve atrophy, point to syphilis as the cause of the ataxy. Some

nice, exhibitions of these ocular symptoms are at present in the Montefiore Home. Sometimes such patients present no spinal symptoms, and the knee-jerk is normal. Such cases must be carefully differentiated from cases of alcoholic multiple neuritis. I operated last winter with good results for cataract-extraction on a man with such suspicious syphilitic involvement; obviously optic-nerve atrophy was not present. Competent advice proved to me a case of multiple neuritis due to alcohol. Patient was for several weeks on a special diet, largely of milk and eggs, and made a good recovery with very useful vision.

In my service at the City Hospital last year there were two patients with gumma of the motor tract (one of which was presented to this Society with ophthalmoplegia), both of whom had neuro-retinitis syphilitica, and both of whom materially improved under specifics and a milk-and-egg diet. I have had for two years under observation a young girl from Brooklyn with double choroiditis disseminata, chiefly in the right eye. Until the summer of 1891 she never had any useful sight, that is to say, did not read or sew, though she occasionally played on the piano. Right vision was $\frac{6}{100}$, left vision was $\frac{20}{50}$. No definite cause for the choroiditis is obtainable, but the constitutional factor is presumably syphilis. Small doses of iodide of potash, phosphoric acid, and quinia, with a milk, egg, and rare-meat diet; claret, with lithia water; Turkish baths with especial emphasis on the massage movements of the upper and lower extremities; cold baths at 65° F., with friction three times a week, have accomplished what may properly be regarded, in view of the obstinacy and rebelliousness of such cases, a satisfactory result. The right vision, previously $\frac{6}{100}$, is now $\frac{40}{100}$; left vision, previously $\frac{20}{50}$, is now $\frac{20}{20}+$. The bodily functions are well carried on, though the appetite is poor, even under a subsidence of the potassium iodide; the cheeks are red, fat has accumulated, and a thoroughly new life has been acquired in a previously cachectic young girl. I mention this case somewhat in detail, as it illustrates the importance of tissue-change and tissue-repair by means of dietary, hygiene, and systematic bathing. Syphilitic patients bear a milk diet well, and as with syphilis a parenchymatous nephritis with albuminuria is often associated, this diet is highly beneficial. I have such patients take one pint to one quart a day at intervals, never before breakfast, but, if possible, the last thing at night, with or without a piece of thin buttered bread. I sometimes insist upon a large glass of warm milk in winter, or cool in summer, at 11 o'clock in the morning, the patient taking a walk purposely some little distance to a milk-store or restaurant. It is the exception in my experience that they cannot take milk, cold or warm, in the full strength, or diluted with vichy, or seltzer, or lithia, or soda, if they really wish to receive benefit. When the alarming possibilities to vision are put before them, in cases of doubt or nausea, it usually suffices to bring such patients to proper and prolonged acquaintance with milk.

In iritis, next to atropine and hot fomentations, properly applied, nothing is so beneficial as the Turkish bath.

Gout and rheumatism enter largely into the etiology of chronic diseases of the cornea, sclera, iris, retina, and muscles. The cornea and sclera are tissues of a comparatively low grade of histological selection; that is to say, they have a large amount of fibro-elastic tissue as their scaffolding, while neither is a reservoir of blood in any sense. Rheumatic affections, when not located deep in the orbit, show themselves in the reflex pain of the cornea, due to the anastomosis of nerves from the fifth pair, with which it is richly endowed. Rheumatism, as a factor of iritis, has long been recognized, especially in the English text-books, while gout unquestionably predisposes to iritis. I have, on more than one occasion, observed gouty nodes on the iris in persons of a highly uric-acid diathesis. Manifestations of gout in the retina are in the form of hemorrhages; and these hemorrhages may be small or flame-shaped,[1] and occasionally globular. Galezowski, of Paris, has observed hemorrhages in the retina, which, on being absorbed, left white patches of sclerosed tissue, which were probably due to an atrophic spot in the retina and choroid lying over the white sclera.

I have observed several instances of linear and globular hemorrhages of the retina, evidently of spontaneous origin, which may have been due to gout. The hemorrhages due to Bright's disease of the kidney, to violent childbirth, and to trauma, are, of course, excluded here.

The ocular muscles and muscles of accommodation sometimes suffer paresis and partial paralysis, due to gout; spasm and paresis of accommodation are not uncommon after severe attacks of acute rheumatism. In this group of ocular diseases we are naturally prone to treat the special complication, so far as the eye goes, and to forget the serious constitutional factor, until the general system has very much deteriorated. There is probably a larger element of gout in the wandering ocular pains, called reflex neuralgias, and causing temporary impairment of vision, than we at present are aware of. For these cases I most strongly advocate small doses of the potash and soda salts, free use of hot water as a beverage, beginning early in the day, thereby to wash out an acid stomach; a selected vegetable diet, in which the alkaline salts are in large proportion—the vegetables to be green, and the fruit fresh; a limited amount of meat, in which some fat shall be present; milk with alkaline table-water, as vichy, vals, seltzer, or lithia; a light, still wine, if wine cannot be avoided, always in moderate quantity, and with an alkaline table-water. It may be said of wine, as of starches and saccharines, the rule should be to avoid them absolutely. Every effort should be made to reduce the element of uricæmia to a minimum. Massage, cold ablutions with friction, and the Turkish bath are highly useful. Let us remember that thirty per cent. of gouty patients, according to Germain Sée,[1] occur in persons under twenty years of age. This may furnish a clew to the possible constitutional element in persistent neuralgias, headaches, annoying skin affections, wandering "growing pains" in the boy or girl at school. Every oculist of experience knows that properly selected glasses do not always overcome the disturbing influence of hyperopia or asthenopia. How often, too, in women are we apt to relegate the innumerable affections of the nervous system to that "dust bin" called hysteria, when we may, with perhaps greater scientific accuracy, find their cause in latent gout? Many of these affections and their congeners may be modified by judicious diet and a properly arranged hygiene.

Diseases of the ocular tissues dependent on scrofula, tuberculosis, and malnutrition, are so allied in their pathological exhibits and clinical behavior that they may be placed in one group, so far as our purpose is concerned. It is not necessary to devote much time to their consideration here, as they are so well understood. To name them in an anatomical category would be to index nearly all the diseases of the ocular system, from the lachrymal apparatus and lids in front to the periosteum of the orbit behind, in which the various tissues are deficient in tissue-builders. The external diseases of the eye are familiar to every practitioner and need no revision at my hands. Tubercle of the conjunctiva, iris, choroid, and retina, retinitis due to pernicious anæmia, etc., are rare and unique exhibitions of a common diathesis, and may be subjected with more or less success to the same rules of therapeutics, diet, and hygiene. The indications to be fulfilled in the main are not only to improve the nutrition by a better digestion, but to increase the body weight. Food should be fine, not coarse. Milk should be the staple, as also eggs. Easily absorbable fats, as cream, butter, and oil, are of especial value. Animal food should predominate over vegetable. The two first classes of constituent elements should enter almost wholly into the diet, viz., proteins or albuminates, and fats or hydro-carbons. The greatest care should be exercised to keep up a good digestion and assimilation—delay is the chief source of trouble in the management of these

[1] Gowers: Medical Ophthalmoscopy.

[1] Du Régime Alimentaire, p. 429.

cachectic cases. Weir Mitchell claims as to the dietary of anæmic people that "the loss of fat (flesh) nearly always goes along with conditions which impoverish the blood; and, on the other hand, the gain of fat, up to a certain point, seems to go hand in hand with a rise in all other essentials of health, and notably with an improvement in the color and amount of the red corpuscles. . . . To gain in fat is nearly always to gain in blood."

I cannot close without a brief reference to certain precautions in intra-ocular operations, which pertain to the subjects of diet and hygiene in eye diseases. Unless such an operation within the eye must by necessity be performed without delay, the previous habits as to diet and beverages should be carefully noted, and corrected if necessary; and the urine should be carefully examined. Albuminuria and glycosuria should be detected, if present, and a proper dietetic and hygienic course prescribed. My personal feeling is that a surgeon who fails to do this fails to do his duty by his patient, and also to protect himself. It is a well-known fact, that of presumably healthy persons nineteen per cent. show albumin on the first examination, amounting to from a trace to three per cent.[1] Deducting the transient cases, there will remain a definite number of cases of albuminuria in a presumably healthy selection of individuals—about fourteen per cent. The importance of knowing this in advance is unquestioned. Cataract extraction in patients with albuminuria and glycosuria must, necessarily, be attended with complications, especially as to the healing of the cornea, bruising of the iris, and convalescence. In a group of seventeen extractions in private practice last year, one of which was a double extraction at one sitting—the ages ranging from forty-seven to eighty-nine years—two of the sixteen patients showed albuminuria, two had enlarged prostate, one old cystitis, one diabetes with polyuria, and one prolapse of vagina and uterus with polyuria. All of these patients had been well-fed for years, but all were, so to speak, "prepared" for the operation by a system of diet and hygiene, so that in no case could it be said that convalescence was complicated by any serious accidents or delays. Each one had a nurse trained to the management of cataract-extractions. The poorest vision was $\frac{20}{100}$, and the best was better than $\frac{20}{20}$, which occurred in an eye myopic to the degree of $\frac{1}{4}$. "Training" for cataract-extraction is as essential as preparing for any other great surgical procedure; and we cannot be too careful in the special indications found present, and in the means of their fulfilment previous to operation.

In closing this rather lengthy paper on the proper management of diet and hygiene in this field of medicine, I take the liberty of quoting the following sentence of Sir Henry Thompson, whose opinions in diet, as in surgery, medicine, and art, are entitled to weight. He writes of improper dietaries: "I have come to the conclusion that more than half the disease which embitters the middle and latter half of life is due to avoidable errors in diet, . . . and that more mischief in the form of actual disease, of impaired vigor, and of shortened life accrues to civilized man . . . in England and throughout central Europe from erroneous habits of eating than from the habitual use of alcoholic drink, considerable as I know that evil to be."

In Eczema there are three groups of sequences: 1. Unknown primary changes in the cells 2. Arrangements to dispose of the adventitious matter from the blood. 3. Altered chemical action in the epithelium—which sequences have certain forms which appear on the surface of the skin, as redness, swelling, papules, vesicles, etc., and desquamation of cells. In the management of eczema three objects are to be specially aimed at: 1. To sterilize the skin. 2. To aid the removal of the adventitious fluid and cells. 3. To help the formation of the new horny cuticle, and to protect the skin during, and for some time after, its formation.—ROBERTS.

[1] Medical Department Equitable Life Assurance Society of the United States.

THE RELATION OF SYPHILIS TO GENERAL PARESIS.[1]

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THE question of the position taken by syphilis in the etiology of dementia paralytica is one that has been attracting great attention among syphilologists and alienists of late years. No fewer than seventy authors have contributed to the elucidation of this problem, and the references to it in the indices of journals devoted to neurology and pyschiatry multiply year by year in a geometrical progression. The majority of the contributions mentioned treat of the subject from a statistical standpoint, and it would seem that sufficient data have been accumulated to fully satisfy all inquiries regarding that particular. Naturally the first point upon which precise information was needed was as to the percentage of cases of general paralysis with a history of syphilis, and we are now in a position to supply it fully. Although these statistics differ at times very materially, yet the results in the main agree. I have placed below, in alphabetical order, a list of the more important authors I have consulted, and the percentages of syphilis found by them in their cases of paralytic dementia:

	Per Cent.		Per Cent.
Ascher[2]	34.7	Mendel[13]	76
Binswanger[3]	64	Nicoulai[14]	13
Bannister[4]	88	Obersteiner[15]	21.6
Cuylits[5]	75	Oebeke[16]	53
Folsom[6]	66.6	Pontoppidan[17]	52
Fuerstner[7]	32	Regis[18]	70–76
Geill[8]	78	Rohmell[19]	76
Jespersen[9]	77	Savage[20]	70
Jacobson[10]	52	Snell[21]	75
Kaes[11]	17	Thomsen[22]	62
Lange[12]	51	Ziehen[23]	33

Kjellberg[24] has taken the stand that all cases of general paralysis are of syphilitic origin, that the cases are affected either congenitally or through acquisition. But this author stands quite alone in his assertion, and is not justified by observations or facts in taking this position.

My own statistics are rather questionable, as are all obtained from large public asylums to which patients are taken in stages of the disease too far advanced for them to give trustworthy information regarding themselves, and whither they are generally brought by relatives or officers unacquainted with such an etiological factor in their histories. There were admitted to the Hudson River State Hospital for the insane 287 cases of general paresis. In 55 of these syphilis was definitely ascertained to have preceded the disorder. In the remaining 232 it was either absent or unascertainable. Actually, then, only nineteen per cent. were found to be syphilitic, but assuming that one-half of the others were affected, the total

[1] Opening of discussion before the New York Neurological Society, November 7, 1893.

[2] Ascher: Dalldorf Asylum Reports, quoted by Stearns, Mental Diseases, New York, 1893.

[3] Binswanger: Festsch., Professor Dr. Meyer, Hamburg, 1891.

[4] Bannister: Journal Nervous and Mental Diseases, 1891, p. 785. d

[5] Cuylits: Bull. de la Soc. de Méd. ment. de Belge, March, 1890.

[6] Folsom: Trans. Ass. Am. Phys., September, 1889.

[7] Fuerstner: Vide Rumpf's Monograph.

[8] Geill: Hosp.-Tidende, 1892, ii.

[9] Jespersen: Quoted by Geill.

[10] Jacobson: Quoted by Geill. See also Journal Nervous and Mental Diseases, April, 1892.

[11] Kaes: Allg. Zeitschr. f. Psych., Bd. xlix., p. 614.

[12] Lange: Quoted by Geill

[13] Mendel: Quoted by Mickle. See Lewin.

[14] Nicoulai: Ann. Méd. Psych, January–February, 1893.

[15] Obersteiner: Quoted by Sachs. See also Report of Private Asylum at Ober-Döbling, 1875–1891.

[16] Oebeke: Allg. Zeitschr. f. Psych., Bd. xlix., p. 1.

[17] Pontoppidan: Quoted by Geill.

[18] Regis: Gaz. Méd de Paris, 1888, 23-24-25.

[19] Rohmell: Quoted by Geill.

[20] Savage: Tuke's Dict. Psych. Med., Article General Paresis.

[21] Snell: Quoted by Sachs.

[22] Thomsen: Zeitschr. f. Psych., Bd. xlvi., p. 615.

[23] Ziehen: Quoted by Binswanger.

[24] Kjellberg: Quoted by Mickle. See Lewin.

ratio would be in the neighborhood of sixty per cent. of the cases.[1]

At public dispensaries we see these cases in the earliest stages, when histories may be more exactly obtained, and I have gone over the patients received at the Vanderbilt Clinic with the following results: Total of cases observed, 40; definitely syphilitic, 10; definitely not syphilitic, 12; unascertained, 18. Taking the 22 cases in which the exact facts were obtained we have 45.4 per cent. certainly syphilitic, and 54.5 per cent. certainly not syphilitic.

From an examination of all of the figures collected above from various sources, it would, perhaps, be fair to assume that about sixty to seventy per cent. of all cases of general paralysis have a syphilitic history. By a comparison of statistics of the relation of syphilis to all other forms of insanity, which I have estimated to be from six to ten per cent., we have the further fact that syphilis is seven to ten times as frequent in dementia paralytica as in insanity in general.

The fact is thus established beyond dispute that syphilis is a striking etiological factor in general paresis, but that thirty to forty per cent. of the cases are not syphilitic. It is therefore an important but not exclusive etiological factor.

A much more difficult problem is to determine the exact relationship between syphilis and general paresis. Is it a direct cause or merely a contributing agent? Is it in syphilitic cases a post-syphilitic affection, or is foregone syphilis merely a predisposing factor? This problem may be examined from several stand points. In the first place we have the rather remarkable statistics of Lewin[2] of 20,000 cases of syphilis, one per cent. of which became insane, and in which not a single case of general paresis developed. Then we have the further fact to which I have elsewhere alluded[3] that among the native Egyptians, where syphilis is one of the most widespread of disorders, no case of general paresis has as yet been reported, and in the asylum at Cairo, which I visited a few years ago, not one such case was to be found. It is significant, by the way, that alcoholism is seldom or never observed among them, the drinking of spirituous liquors being interdicted by the Koran. Such facts as these it is impossible to reconcile with a hypothesis ascribing to syphilis the direct causation of paralytic dementia.

Again, from the pathological stand-point, it is well known that the direct invasion of the brain by syphilis is characterized by changes in the blood-vessels (endarteritis obliterans), by the formation of gummata, or by diffuse meningeal infiltration (specific leptomeningitis or meningo-encephalitis). The first and third of these processes are most frequent in and about the base of the brain. The second is more common in cortical regions. On the other hand, in general paralysis we have a chronic meningitis of the convexity with atrophy of the cortex, and the processes in this disease and in syphilis are quite distinct, although there are cases in which a syphilitic meningo-encephalitis may closely simulate symptomatically dementia paralytica. The pathological processes are different. Not long ago Binswanger[4] gave the details of two autopsies in which gummatous and arterial syphilitic processes existed side by side with the pathological changes of general paresis; and Zambuco, Westphal, Ludwig Meyer, and others have reported similar cases. The coexistence of two distinct pathological processes does not prove the dependence of one upon the other. Kiernan[5] has lately reported nine cases of dementia paralytica in which syphilis was contracted after the development of the mental disorder.

There are some who argue that tabes and general paresis are frequently associated, and that tabes being a form of syphilitic disease, general paresis in consequence must owe its origin to syphilis. Thus Sachs[1] says: "The very frequent development of tabes after dementia paralytica, and of dementia paralytica after tabes, proves the close relationship between those two diseases; and since tabes is beyond a doubt a form of syphilitic disease, there is sufficient ground for thinking that dementia paralytica bears the same etiological imprint."

Now there are two points that should be taken into consideration with regard to this statement which I believe to be reasonably well founded. First, if the two diseases have the same etiological imprint, there ought to be a close correspondence in the percentages of syphilis in relation to each. But the consensus of opinion seem to be that a history of syphilis is found in only sixty to seventy per cent. of cases of general paresis, whereas in tabes the percentage is placed by Fournier at ninety-one to ninety-eight per cent., by Erb at eight eight per cent., by Rumpf at eighty to eighty-five per cent., and by Sachs himself at over ninety per cent. The Vanderbilt Clinic statistics are significant in regard to this point, for the histories were carefully investigated in both tabes and paralytic dementia, and the cases were all drawn from the same population. As stated above, of 40 cases of general paresis 10 were syphilitic, 12 not syphilitic, and 18 unascertained. Of 83 cases of locomotor ataxia 51 were syphilitic, 20 not syphilitic, and 22 unascertained. Of the 71 cases of tabes of whose specific history we have exact data over seventy-one per cent. were syphilitic and over twenty-eight per cent. not syphilitic. That is, then, among cases equally well studied and from the same sources 45.4 per cent. of general paralytics were syphilitic and seventy-one per cent. of tabetics.

Secondly, I should not at all agree with the statement that there is a "very frequent development of tabes after dementia paralytica, and of dementia paralytica after tabes," for it has been my experience that such cases are very few, and most men with a large asylum experience would, I am sure, coincide with this belief. They are striking when they occur, but they are rare. I am not alone in the statement of this opinion. At a meeting of the Deutsche Naturforschr. und Aerzte,[2] September 19, 1889, when Strümpell claimed that syphilis was always the cause of tabes, and, analogously, of general paresis, Mendel stated that, while he agreed with him in regarding syphilis as the most important cause of tabes, he would not identify the processes as the same, for only in a small number of cases of dementia paralytica was there gray degeneration of the posterior columns, and, on the other hand, only a few cases of tabes developed general paresis.

Then, too, in cases of paralytic dementia with tabetic symptoms, the nerve-fibres of the posterior columns are often little if at all implicated.[3] Hence it seems to me that in the present state of our knowledge an argument for a syphilitic etiology of dementia paralytica, based upon the grounds of a close relationship between tabes and general paresis has but little force.

One of the facts which has been employed against the opinion that this disease is a late form of specific disease, is the absolute futility of anti-syphilitic treatment. In every form of cerebral syphilis proper, whether gummata, meningeal infiltration, or even specific arteritis, we are enabled often to accomplish a great deal of good by vigorous and systematic treatment; whereas, in general paresis, even when a history of syphilis is clear, no appreciable effect is produced by anti syphilitic remedies.

We do have mental disease immediately due to syphilis —forms of hypochondriasis, mania, melancholia, dementia, and occasionally a syndrome closely simulating dementia paralytica (pseudo-general paresis). But typical dementia paralytica, in my opinion, has no immediate or late relation to syphilis as a direct cause. Syphilis is a

[1] I am indebted to Dr. Langdon for his aid in obtaining these statistics.

[2] Lewin: Quoted by Mickle in General Paralysis of the Insane, 1886.

[3] Peterson: The Insane in Egypt, MEDICAL RECORD, May 21, 1892.

[4] Binswanger: Neurolog. Centralb., vol. x., p 618.

[5] Kiernan: Alienist and Neurologist, i., 1893.

[1] Sachs: Morrow's System of Genito-Urinary Dis. and Syphilology—Article, Syphilis of the Nervous System, New York, 1893.

[2] Neurolog. Centralb, vol. viii., p. 548.

[3] Cf. Bevan Lewis. Text-book of Mental Diseases, 1890, p. 504.

common etiological factor, but only in the sense of its being a predisposing cause. It prepares the soil in more than half of the cases for the development of dementia paralytica, this disorder having its direct causes in alcoholism, sexual excesses, and overstrain of the mental functions. The higher nervous elements are rendered prone to degeneration by the forerunning specific disease, which, as is well known, gives rise to a cachexia, with changes in the constitution of the blood. Thus Neuman and Konried[1] have systematically examined the blood in two hundred cases of syphilis, both in early stages and frequently after the lapse of years, finding the hæmoglobin diminished from fifteen to thirty per cent. In old and untreated cases the diminution varied from forty-five to seventy-five per cent.

My study of the subject leads me to submit the following brief conclusions:

1. A history of syphilis is found in sixty to seventy per cent. of cases of general paralysis of the insane.

2. The fact must not be lost sight of that in thirty to forty per cent. of these cases no history of syphilis, congenital or acquired, is to be found.

3. Antecedent syphilis is seven to ten times more frequent in general paralysis than in other forms of insanity.

4. Syphilis is therefore to be looked upon as a frequent but not constant factor in its production.

5. But paralytic dementia is not a form of specific disease, not a late syphilitic manifestation, nor is it a form of degeneration depending upon the syphilitic poison for its origin.

6. The relationship of syphilis to general paresis lies in the facts that it is a wide spread disorder in all communities, that it weakens the constitution and vitiates the blood in many whom it infects, and that the system is thus prepared in many cases for the direct operation of the final etiological factors of general paresis, viz., alcoholism, excessive venery, heredity, and mental overstrain and excitement.

[1] Neuman and Konried: Medical Press and Circular, October, 1893.

ON VACCINATION.

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To one who has carefully investigated the subject, it is evident that the people of this country are not properly protected by vaccination. The apathy shown in this matter is surprising when the large mortality from small-pox in the unprotected is considered, as well as the simple manner by which protection may be afforded. Many children remain unvaccinated as late as the fifth or sixth year, and revaccination receives practically little consideration. It is the latter which in a great measure is responsible for the presence of small-pox in this city.

It may not be amiss at the present time to review briefly the history of vaccination, with a presentation of statistics and such practical points as may be of interest to the profession.

Edward Jenner, the discoverer of vaccination, was born in 1749 in Berkeley, Gloucestershire, England. Early in life he showed a predilection for natural history, the preparation of zoölogical specimens, etc., and apparently had resolved to follow this occupation. It was decided, however, that he should enter the medical profession, and he was apprenticed to Mr. Ludlow, a surgeon of Sodbury, near Bristol. It was during this period that the power of vaccination was unfolded to him. He had learned of the tradition existing among the people employed in dairies, that those whose hands became infected as the result of milking cows having an eruption about the teats and udder, known as "cow-pox," were protected against small-pox. It seems strange that this report had not received greater attention, but the indifference of the people generally to traditions, and the reticence on the part of owners of dairies to furnish any information which might injure their business, may partly account for it. It did not escape the observation of Jenner, who for almost thirty years, carefully and patiently investigated the subject, and having demonstrated the protection afforded by vaccination to his entire satisfaction, gave to the world, in 1798, his description and results of vaccination in a paper, entitled "An Inquiry into the Cause and Effect of Variola Vaccina." During the period of his investigation he did not try to conceal his discovery, but freely discussed it and invited help, but met with nothing but indifference and discouragement. Even John Hunter, under whose care Jenner, as a favorite student, studied while in London, and with whom he lived for two years, was not impressed with the importance of vaccination; he occasionally spoke of it to his friends and referred to it in his lectures, but nothing more. Undaunted, Jenner continued his work, and at last, on May 14, 1796, vaccinated James Phipps, eight years of age. The operation was successful, and in July of the same year the boy was inoculated with lymph, taken from a small-pox vesicle, and as Jenner predicted, no result followed. The disappearance of cow pox retarded the investigation until 1798, when vaccination was repeated. In the meantime he had gone to London to continue his work, but it was three months before a vaccination was performed in that city. This was done by Mr. Cline, a surgeon connected with one of the hospitals, who vaccinated a boy suffering from hip disease, not so much as an evidence of his belief in its protective influence, as in the hope that it might prove to be a good counter-irritant. Other vaccinations followed, and the success of the new discovery became assured. Vaccination spread rapidly throughout England and the Continent; not, however, without considerable opposition and many annoyances to Jenner, principally on account of the ignorance displayed on the part of those who vaccinated, and the worthless quality of the virus used.

Vaccination was introduced into the United States in 1800, by Dr. Benjamin Waterhouse, of Boston, and in this city by Dr. Valentine Seaman, who, on May 22, 1801, vaccinated several persons with lymph obtained from the vesicle on the arm of a servant of Governor Sergeant, who was vaccinated in Boston by Dr. Waterhouse, and arrived here before the eighth day. In January, 1802, an institution for the purpose of free vaccination was established in this city, with Dr. Samuel Scofield as resident surgeon. This was subsequently merged into the New York City Dispensary.

Jenner continued his work more or less actively. The Royal Jennerian Society, over which he presided, was established in 1802, but owing to dissension among its members this association failed in 1808, and was succeeded by the Royal Vaccine Establishment. The latter part of Jenner's life was spent in Berkeley, where he died on January 26, 1823, of apoplexy.

There is probably no subject the statistics of which are more voluminous and convincing than those relating to vaccination. A few of them may be of interest, as showing the marked change in the frequency and mortality of small-pox before and after the introduction of vaccination.

In the city of London, between the years 1790 and 1800, the population being about 250,000, there were recorded an average of 1,780 deaths annually from small-pox. In the same city, between 1855 and 1868, the population being ten times greater, the records show an average of 729 deaths annually from small-pox. If the mortality from small-pox in London at the present period was equal to that of the prevaccination era, there would be annually 28,500 deaths from this disease. The following table shows the number of deaths from small pox in London per 100,000 inhabitants before and after 1800.

	Average.
1790 to 1800	712.0
1855 to 1868	30.4
1875	1.3
1876	20.8
1877	71.1
1878	38.8

	Average.
1879	12.1
1880	12.5
1881	61.9
1882	11.1
1883	3.4

In Vienna, between 1790 and 1800, the average number of deaths annually from small-pox was 835; in 1801, 164; in 1802, 61; in 1803, 27; in 1804, 2.

From the records of interment in Trinity and St. Paul church yards, in this city, it appears that there were 5,756 burials in these cemeteries between the years 1785 and 1800. Of these, 610, or one-tenth of the entire number, died of small-pox. During the years 1805 and 1806 there were 4,595 burials; of these, 110, or one-fortieth of the entire number, were deaths from small-pox.

Werner, in speaking of the helplessness of the people in the prevaccination period, says that in non epidemic years one-tenth of all mortality was from small pox, and in epidemic years, which occurred every third or fifth year, one-half of the mortality was due to this disease. One-third of the babies born died before the end of the first year, and those who were affected with small-pox and survived it were either blind or otherwise disfigured. In 1734 two-thirds of the entire population of Greenland died from small-pox.

Jenner believed that one successful vaccination was sufficient for life, and he regarded the cases of small-pox occurring a number of years after a primary vaccination as being due to unsuccessful operation. The necessity for revaccination did not become apparent until the latter years of his life, during which time he had practically given up his active investigation. About the time of his death, however, it became a well-recognized fact that small-pox was occurring in those who had been successfully vaccinated in childhood, and that the protective power of vaccination became diminished about puberty or before. Revaccination was made compulsory in Russia, Sweden, Denmark, and Bavaria in 1838. It was also made compulsory in other countries of Europe. Statistics then began to show the value of the secondary vaccination. Hein found that in five years, among 14,384 revaccinated soldiers in the Wurtemberg Army, but two cases of small pox occurred, and among 30,000 revaccinated civilians there were also but two cases of the same disease recorded. During this period, however, there were recorded 1,674 cases of small-pox in the same section of country. Since 1834, when systematic revaccination was begun in the German army, nearly all the cases which have occurred have been recruits who had not yet been vaccinated. Marston states that during his service of thirty-two years in the Small-pox Hospital in London, every servant and nurse was vaccinated on first entering the institution, and during this service none of them were affected with small-pox.

Primary vaccination, but not revaccination, is compulsory in England, while in Germany both are compulsory. The following table from Gerstacker shows the marked effect of revaccination.

Deaths from Small-pox per 100,000 Inhabitants.

	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.
Primary vaccination, compulsory. In London	1.3	20.8	71.0	38.8	12.1	12.5	61.9	11.1	3.4
Primary and revaccination, compulsory. In Berlin	5.2	1.8	0.4	0.8	0.7	0.8	4.7	0.4	0.3

There were 384 cases of small-pox reported to the Health Department of this city during 1892; of which 232 were over fifteen years of age. Thus far, in 1893, there have been 415 cases reported, of which 274 were over fifteen years of age. The percentage of cases over fifteen years of age is so large that it would indicate that these people had not received the benefit of revaccination. An investigation of the cases showed this to be a fact, the history given by the patients referred to, and the presence of at least one good scar in most cases, indicated that they had received the benefit of a successful primary vaccination; the statements made by these people relative to later vaccinations were imperfect and very unsatisfactory.

As might be expected, a large per cent. of the above number were mild cases, made so by the protecting influence of the early vaccination. Still these cases are, as a rule, the most dangerous to a community; the eruption frequently being very slight and with no pronounced constitutional symptoms, they mingle with others and scatter the contagion broadcast. A very striking instance of the value of revaccination occurred during the recent outbreak of small-pox. Toward the latter part of August of this year, 8 cases of this disease were discovered in the lower part of the city; they had been regarded as measles and no quarantine observed. New cases soon followed these, and it left no doubt but that others would occur. The infected district included "Cherry Hill," which, as it is well known, is in some portions densely populated, the people being crowded into small and old-fashioned houses, some of which open into alleys, oftentimes with an entire family occupying one room, and with very little attention given either to personal or general hygiene. A number of vaccinators were assigned to this district and began a house-to-house vaccination. The houses were visited night and day in order that all the tenants might be found and vaccinated. Fully three fourths of the cases of small-pox removed from this locality were adults, and the work of the inspectors consisted principally of revaccination; as a result, the outbreak, which at the beginning bid fair to become an epidemic, was entirely under control within a short time. The effect of the good work accomplished at this period is well illustrated by the following table:

Section of the City in the Vicinity of "Cherry Hill."

Date.	Number of cases.	Date.	Number of cases.
September 1 to 7	8	October 20 to 26	3
" 8 to 14	3	" 27 to November 2	3
" 15 to 21	18	November 3 to 9	0
" 22 to 28	16	" 10 to 16	1
" 29 to October 5	5	" 17 to 23	0
October 6 to 12	7	" 24 to 30	0
" 13 to 19	7		

It is the necessity for better protection against small-pox that has led the Health Department to push vigorously the work of vaccination and revaccination in this city, and the department has endeavored in all cases to co-operate with and gain the approval of the medical profession in this important matter. The work is done at the public expense, and is a public measure of safety; and it is the duty of the Health Department to respond to all requests for vaccination, whether it is from the rich or poor.

The Bavarian statistics given by Dr. Gerstacker as to the relative mortality from small-pox in the unvaccinated, in those who have been once successfully vaccinated, and those who have been successfully revaccinated, indicate the following result:

Of 1,886 cases reported, there were:

	Mortality per cent.
148 unvaccinated	44.6
1510 one successful vaccination	12.6
226 revaccinated successfully	6.1

Children should be vaccinated prior to the third month, unless contra-indicated by some acute disease, diarrhœa, cutaneous diseases, particularly of the vesicular type, as herpes, eczema, and intertrigo; in fact, Jenner's rule "to sweep away all eruption from the skin previous to inserting the lymph" is still a safe guide. These eruptions have been known, according to Seaton, to interfere with variolous inoculation. Children are very susceptible to small pox, and if exposed to this disease and unprotected, should be vaccinated at once; this may be done on the day of birth with satisfactory result.

The age at which revaccination should be performed

cannot be definitely settled, although there is no doubt that puberty is a period during which time the susceptibility to small-pox is marked, and it may be accepted as a rule that revaccination should in all cases be performed between the age of ten and fifteen years. In Germany it is compulsory between ten and twelve. A successful primary vaccination in childhood and a successful revaccination at puberty undoubtedly gives to the majority of persons the complete protection of vaccination throughout life. Unnecessary vaccination could be avoided if physicians would carefully observe each vaccination performed, and if successful, give a certificate stating the name and age of person vaccinated, whether a primary or a revaccination, date, etc. In this way an authentic history of each case could be obtained.

Horse-pox, a disease similar to cow-pox, was confounded by Jenner with the "grease," both of which affect the heel of the horse, but are of entirely different origin. He regarded cow-pox as a disease communicated from the horse to the cow by the hands of those who had the care of both animals. Inoculation performed with lymph taken from the vesicle of horse-pox has proved quite successful in the human being, and there seems to be little doubt but that horse pox (variola equina) and cow-pox (variola vaccina) are the result of variolus infection of these animals communicated to them in different ways. This susceptibility to variola appears to be confined principally to the cow and horse; other animals are said to be more or less susceptible, but the statistics in regard to this are insufficient for definite proof.

Inoculation with lymph taken from the vesicle of small-pox was in vogue at least one hundred years before vaccination. It was practised extensively in Constantinople in 1700, and introduced into England in 1821. That it rendered small-pox comparatively harmless (about 3 or 5 deaths per 1,000 persons inoculated) was undoubted. It, however, was a means of propagating the disease in the communities where it was practised, which was a fatal objection, and after having caused the death of a number of prominent persons it was made unlawful in 1840 by an act of Parliament.

The belief existed at one time that the vaccine lymph as it was further removed from its origin (the cow) became progressively weaker and weaker; this has been practically abandoned. The virus is undoubtedly as effective to-day as ever. Retrovaccination consists in inoculating the cow with humanized lymph.

Arm to arm vaccination, the method of Jenner and one that is still in use, is the surest way of obtaining a successful vaccination. In taking lymph from a vaccine vesicle either for arm-to-arm vaccination, or for charging quill or ivory points, or for filling capillary tubes, the following rules should be strictly adhered to. The child selected should be plump and well, with a clear skin and a perfectly satisfactory family history, the lymph should be removed about one hundred and sixty-eight hours after vaccination. At this time the vesicle is at its highest state of perfection, the lymph clear and transparent. The puncture should not be made at the base of the vesicle, as there is danger of incorporating blood with the lymph. It should be remembered that the structure of the vesicle is cellular and a number of punctures should be made in order to properly liberate the lymph, which may at once be applied to the scarified arm of the children who are to be vaccinated. This may be done either by the lancet, a glass rod, quill, or whatever will answer the purpose, provided its surface is smooth and clean. If the lymph is to be taken for future use it is generally kept on quills, or on ivory points. These should be used as early as possible, as they deteriorate rapidly and cannot be depended upon to retain their activity for more than two weeks, although they frequently produce typical vesicles after an interval of months. They should be carefully kept air tight, at an even temperature of 60° F. The non-observance of this rule is one of the principal reasons why virus frequently fails. The capillary tubes contain lymph for one or more inoculations. They are sealed at the ends by heat, a process which is said to affect the contents unfavorably. The scab or crust from a successful vaccination, which drops off between the twentieth and the twenty-fifth day, is generally used for transmission to hot climates, or in cases where considerable time will elapse before being used. Crusts are used by moistening a small piece with water and rubbing on the scarified surface. The lymph and crust for vaccination should never be taken from a revaccination but always from a primary vesicle. The foregoing relates to humanized virus. The comparatively slow manner in which it is collected has led to the adoption in this country of the bovine virus, which is easily secured in large amounts, and has proved to be successful. Since the introduction of vaccination, innumerable instruments for scarification have been devised, used, and abandoned as worthless. They cannot be kept properly cleaned, nor relied upon. No better or simpler method can be employed than that recommended by the Health Department of this city, which consists in the use of ordinary needles, which are new and removed from the package at the time of vaccination. A fresh needle is used for each vaccination, then thrown away. If the needle is fine and sharp, very little pain is experienced. The ordinary lancet is too sharp for proper scarification. If this instrument is preferred for scarification, its point should be blunted by rubbing it over very fine sand or emery paper. In this condition, and with a little care, a perfect scarification can be made.

The phenomena associated with a successful primary vaccination are as follows: From two to three days after the vaccination a papule appears, which by the fifth or sixth day becomes a vesicle, cellular in structure and having a bluish-white or pearly color, with a central depression. When the vesicle is very small it is round and symmetrical, but in this country, where the scarification is comparatively large, the vesicle has an irregular or fluted border due to the coalescence of a number of smaller vesicles. At the end of one hundred and sixty-eight hours after vaccination the vesicle has become fully formed and is plump and distended with clear lymph. At this period a ring of inflammation begins to surround the base of the vesicle, and for the next two days spreads in a circular form, and when fully developed is from one to two inches in diameter. It is often attended with considerable hardness and swelling of the subjacent connective tissue. This inflammatory ring is known as the "areola" and represents a successful vaccination, and may be regarded as almost pathognomonic. The areola begins to fade about the tenth or eleventh day. The lymph has now become opaque, and the vesicle is dry in the centre, and by the fifteenth day a hard brown scab is formed which becomes darker and falls off between the twentieth and twenty-fifth day. There is usually more or less constitutional disturbance, elevation of temperature, restlessness, and the axillary glands may also become involved. The constitutional symptoms, however, are not essential to a successful vaccination. A vesicular eruption occasionally occurs, which resembles varicella, with which it may be confounded. It does not, however, resemble the vaccine vesicle. This complication very rarely occurs in the adult.

The marked features of the vesicle following a successful primary vaccination do not as a rule appear in a revaccination, neither is the typical areola present, although considerable local inflammation may follow the operation. The latter appears as early as the third or fourth day. The axillary glands may be affected, and there is more or less constitutional disturbance. The scab becomes detached and drops off during the second week.

A fungoid growth having a raspberry appearance occasionally occurs in place of the vesicle, it remains two or three weeks and gradually disappears, generally leaving no scar. It affords no protection whatever against small-pox, although it is sometimes improperly regarded as a successful vaccination. This growth also follows a revaccination.

GLENWOOD SPRINGS, COLORADO.

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So far distant and so inaccessible are many of the most interesting features of American scenery, that the wearied citizen and the enfeebled invalid have found it easier to visit the springs and health-resorts of Europe than to attempt the passage of the enormous distances that must be traversed in order to get anywhere in the United States. It is, therefore, a pleasure to chronicle every fact that marks an increase in the number of home attractions and to note every improvement in the means of locomotion by which they are made accessible.

It has long been known that America abounds in mountain scenery that is unsurpassed by anything in Europe. But the old world resorts possess the great advantage of easy approach and of provision with every comfort that the tourist and the invalid can desire. From our maritime cities a voyage of a week conveys the traveller to the lakes of Ireland and England, whence it is but a step to the Alps and the Tyrol. No wonder, then, that every summer finds the Atlantic steamships crowded. It is a glorious experience thus to renew acquaintance with the sea-gods, and to visit the centres where civilization was ripened thousands of years ago.

But to this picture there is another side. The respectable citizen who blithely ascends the gangway plank at New York, only to be dragged out upon the quay at Liverpool a wretched, retching, hollow-eyed, and scaphoid wreck of his former self, may subsequently learn to admire the grandeur of London, the splendor of Paris, and the sublimity of Mt. Blanc, but he can be seldom induced to admit that they are a sufficient compensation for a week of cocaine, sodium bromide, and sea-sickness. For every such person the great improvements that are making every part of America accessible and comfortable are a positive benefaction. For him let me outline an itinerary that will lead him through some of the most remarkable scenery in the world to a place that is destined to become a favorite health resort.

Leaving the New York Central Railroad station by the "Exposition Flyer," which starts from Forty-second Street at 3 P.M., the tourist is hurried without a pause through the matchless vistas of the Hudson River, until Albany is reached. Here a dining car is attached, and by the time that a leisurely dinner has been discussed, the train is hastening through the fertile fields and among the lovely hills of Central New York. The brilliantly lighted city of Rochester is passed at bedtime. Buffalo is skirted at midnight; and at intervals during the hours of darkness the flashlights and colored beacons of the United States Lighthouse Service, fitfully illuminating a long line of surf upon white, sandy shores and projecting jetties, indicate the harbors of Erie and Cleveland and other lake ports. Sunrise reveals the prairies of Northern Indiana and Southern Michigan, and breakfast is scarcely finished before the vast inland sea, Lake Michigan, appears in full view. A cloud of black smoke gathers upon the western horizon; and at ten o'clock A.M., after one of the most comfortable and rapid journeys that modern transportation can afford, you step forth upon the streets of dirty, dusty, noisy, audacious, sky-scraping Chicago. There rest may be enjoyed, if repose be possible in such a throng, until the hour of 5 P.M., when the western trains depart on half a dozen different railways. Let us choose one of the more southerly lines. We roll over the level prairies of Illinois, rich in cornfields and teeming with horses, hogs, and cattle. At midnight the broad Mississippi is crossed, upon a bridge of iron that seems to stretch an interminable length into the impenetrable darkness beyond the river. Daylight finds us still among cornfields upon the billows of the rolling prairie, but now it is the State of Missouri; and soon we are upon another enormous bridge that crosses the valley of the Missouri, through which winds the broad and turbid stream that bears the mire of Montana to its destination in the Gulf of Mexico. Before noon we have left behind us the youthful and energetic Kansas City; we are upon the classic soil of what was once known as "bleeding Kansas." Here is Lawrence and there is Topeka, and a little farther we view the dwellings of Emporia. Here the border-ruffians and the Massachusetts colonists met in war to the knife during those old *ante-bellum* conflicts that now seem so dreamlike, so far away, so foreign to all modern civilization. It is the same smiling landscape, gay with prairie flowers and resplendent with an abundant harvest, that has absorbed the attention ever since quitting Chicago. But, as the afternoon wears away, the view insensibly changes its character. The rolling prairie gradually loses its billowy contour and slopes gently upward toward the west. The soil is an impalpable powder devoid of bowlders and gravel. The little gullies, washed out in the fields by the rain, exhibit strangely perpendicular banks, suggestive of the cañon formation of which we have heard. Occasionally appears a distant ridge, crowned with a vertical cliff that is surrounded by a talus of fallen rock and earth, as if it had been once an island in some pre-Adamite sea. Water grows scarce and the settlements are few and far between. At sunset, the aneroid barometer marks an elevation of fifteen hundred feet above sea-level. Before us lies the broad and shallow valley of the Arkansas River—just now an insignificant stream, meandering in the distance among the cottonwood trees that fringe its banks and mark out the apparently slight depression through which it flows. These are the vast plains where roamed the buffalo and the Indian before the advent of railways and white men.

All night long as we slumber lightly in the comfortable Pullman car, the rumble of the wheels indicates that we are steadily advancing up the valley. At early dawn the arid expanse of the great desert is in sight on either side of the narrow ribbon of green that conceals the stream. A belated coyote glances for a moment at the moving cars and then scurries away in search of his lair among the clusters of sage-bush. Queer little prairie dogs sit up on their tails and chirp courageously as we whistle past their burrows. Yonder winds a trail across the dusty plain; it is bordered with the skeletons of horses and oxen; and there is actually a "prairie schooner," a real old-fashioned emigrant wagon, slowly toiling through this scene of desolation. The stainless blue of the Colorado sky arches over the earth; and, as the sun rises upon the cloudless horizon, its purple rays light up the Spanish Peaks, far away in the southwest. Behind, and northward, coming rapidly into view until the entire western horizon is occupied by the glorious vision, are the gray foot-hills and the snowy ranges rising higher and higher beyond each other, till we are in full sight of the Rocky Mountains of Colorado.

Soon after breakfast a cloud of white smoke begins to gather between us and the foothills. It issues from the silver smelting works of Pueblo; and at an early hour in the forenoon our train is halted in that city. Here a delay of four hours gives ample time to ride over the town; to visit the Mineral Palace, as the citizens call the museum in which are exhibited specimens of the minerals for which the State of Colorado is so justly celebrated; to view the fine houses and elegant grounds that are replacing the desert wherever irrigation can be accomplished; and, above all, to admire the mountains that form the magnificent background of the picture.

Refreshed by an excellent luncheon, we resume our journey at midday. In and out among the foothills, as are called the terminal moraines of the ancient glaciers, we follow the ascending course of the Arkansas. At Cañon City the train tarries for a minute among the orchards and vineyards that border the track, and then plunges into the tremendous gorge through which the river escapes from the mountain range. For several miles the foaming torrent tears its way between almost perpendicular cliffs of syenite that form a cañon of which the floor is no wider than Broadway, while its walls are hundreds of feet high. Along the entire course of this

gorge the roadbed has been blasted out of the solid rock, excepting one point where the track is actually suspended over the water from iron rafters that span the chasm.

After the passage of the Grand Cañon of the Arkansas the mountains recede a little way from the river, and their altitude increases. Occasionally a broad and level meadow indicates the position of some Alpine lake, now filled up with the wash of the adjacent hills. Far away in the southwest rise above fourteen thousand feet the snow-capped peaks of the Collegiate Range, Mount Princeton, Mount Yale, Mount Harvard. We are rapidly ascending; and, as evening approaches, we sweep around the broad valley into which Leadville looks down from an elevation of ten thousand feet above sea-level. Here was the ancient *mer de glace* from which issued the glacier that once lay in the channel of the Arkansas, and ploughed its Royal Gorge. But glaciers and mountain lakes have long since disappeared, and through the broad meadow that lies in their place now trickle the meandering streamlets that form the head-waters of the Arkansas River. We have reached the backbone of America; and through a tunnel, many hundred feet in length, we pass beneath the crest of the Great Continental Divide, and are in the valley of the Eagle River, where the water flows westward to the Grand River and the Grand Cañon of the Colorado, through which it finally reaches the Gulf of California and the islands of the South Sea.

As the train rushes impetuously down the slope, we can see through the twilight, far up the mountain side, the burrows and the huts of the miners who are digging silver. Darkness soon veils them from sight, and the lamps in their cabins can be scarcely distinguished from the stars above the distant peaks. We are descending rapidly, and the roar of the torrent beside the track indicates an increasing flow of water as we advance. A little more than two hours after crossing the Divide, the needle of the aneroid indicates a descent of five thousand feet. Our car-wheels rumble through the tunnel that pierces the huge promontory around which sweeps the Great Bend of the Grand River; a sudden burst of electric arc-light illuminates the foaming rapids and the valley and the mountains—we have arrived at Glenwood Springs. All these varied and interesting sensations have been experienced within the period of three days and three nights of comfortable travel, while your Atlantic steamship passenger of corresponding date, rocked in his mid ocean cradle, still "lies howling."

A railway 'bus, of approved pattern, trundles us across the iron bridge that spans the river. Everywhere a blaze of electric light, by the aid of which we can see the foaming rapids, the broad pool of the swimming bath, the lawn terraces, and, finally, overlooking all, a stately Italian palace, built of red sandstone and Roman brick—the new Hotel Colorado. We are hurried from one surprise to another, as our party is ushered into the spacious corridor where at evening the guests assemble and listen to the music of a German quartette band, and watch the arrival and departure of travellers. There are visitors from every considerable city in the country. Englishmen of every variety abound. Here, fresh from the Columbian Exposition, come a German count and countess, followed by their body physician and body surgeon and a numerous retinue armed with rifles and other weapons of war. There goes a bright eyed professor of world-wide reputation, from New York; and, yes, it is he, the prince of scientists, von Helmholtz himself, who is promenading up and down the long corridor. Elderly ladies draw their easy chairs near the wood-fire that blazes in the vast, old-fashioned chimney. Occasionally, a Mexican sombrero looms up in the twilight, as its owner with jingling spurs saunters to the desk for a chat with the clerk. Young people in gala attire skip lightly over the polished floor of the ball-room, while the worshippers of the great goddess Nicotiana sip their coffee and burn incense upon the wide veranda outside. Throughout the house gas is unknown, and everything is resplendent with electric light. Out of doors, despite the moonless night, the scenery is most impressive. The building stands upon a hillside, and occupies three sides of a square, of which the fourth lies open toward the valley, the river, and the town. The broad court, thus formed, is bordered with brilliant flowers, and is carpeted with the greenest of turf, while from its centre springs a fountain of water that throws its jet one hundred and thirty feet into the air. In the morning sunshine the spray is filled with rainbows, but now at night its feathery films are lost among the stars that glitter like diamonds in a cloudless sky that seems as translucent at the horizon as in the zenith. Beyond the terraced lawns, at the foot of the hill, the vast swimming pool shines, and the gliding river shimmers in the electric light. Upon the opposite side of the valley the town of Glenwood covers the slope of the ancient moraine; while above and around us lie the mountains, couched like sleeping giants, strong and silent as the arch of heaven itself.

After a night of sleep such as seldom falls to the lot of a jaded citizen, morning arrives freighted with new and unexpected pleasures. In this arid desert a diet of canned peaches and fried ham would not have been a surprise; but, here, in an elegant hall, we find every comfort that modern civilization can procure. Ripe fruit, fresh from the garden, mountain trout, the like of which can be found only among the mountains, juicy beefsteaks, delicious cream, vegetables galore; all proffered in abundance with the daintiest service in the world—the most exacting epicure could ask for nothing more. All this luxury where, only six years ago, the affrighted settlers were holding on to their scalps, and roaring lustily for the United States Army to save them from the Indian tribes!

Thus fortified we sally forth upon the town—a little village of about one thousand inhabitants, but well-built, for Colorado abounds in beautiful building materials. The streets are wide, and will soon be shaded with a luxuriant growth of cotton-wood trees, urged forward by the moisture that reaches their roots from the sparkling streamlets that gurgle through the open gutters. Aside from the medicinal springs there appears no visible reason for the existence of this thriving settlement; but we learn that here is a favorite rendezvous for such of the mining population as find themselves with surplus funds at their disposal. The local daily newspaper assures us that here every luxury known to civilization can be enjoyed. The shop windows swarm with curios, and at intervals along the sidewalks little blackboards, chalked with apparently random figures, notify the passenger that at stated hours of the day the solution of certain aleatory problems will be here announced. The crisp morning air and the brilliant sunshine inspire everyone with life and hope; even the silver miners are cheerful. Well-dressed strangers drive about in open carriages; small boys coax the wilful burro into a surrender of his freedom; a troop of lively young Englishmen canter away to their polo-ground; and here, jogging along on their ponies, and exchanging nods and smiles with the leading citizens and ladies of the town, come a pair of cow-boys, looking as if they had been just now let loose from Buffalo Bill's Wild West Show. One of them, our informant whispers, is out on bail after an interview with the police, owing to a slight misunderstanding that had resulted in the sudden death of another man. "Shoot first, and then investigate, is the rule."

Well, then, let us return to the other side of the river. Here, at the foot of the mountain, are the famous hot springs, bubbling up along the bank of the stream. The largest source has been surrounded with a curb that encloses a pool, about twenty feet in diameter, where the water, at the temperature of 124° F., boils up with a strong and steady stream that flows through a broad conduit to the red sandstone bath-house and the great swimming pool, a few yards below. The water is beautifully transparent; it exhales a faint odor of hydrogen sulphide, and tastes like chicken broth. According to Professor

Charles F. Chandler, one United States gallon contains:

	GRAINS.
Sodium chloride	1,089.8307
Magnesium chloride	13.0994
Sodium bromide	0.5635
Sodium iodide	Trace.
Calcium fluoride	Trace.
Potassium sulphate	24.0434
Calcium sulphate	82.3861
Lithium bicarbonate	0.2209
Calcium bicarbonate	24.3727
Ferrum bicarbonate	Trace.
Sodium phosphate	Trace.
Sodium biborate	Trace.
Alumina	Trace.
Silica	1.9712
Organic matter	Trace.
Total solids	1,250.0411

From this analysis it appears that the water of the Glenwood Springs resembles that of Aix-la-Chapelle and the "chicken broth" springs of Germany. It is, therefore, useful in the treatment of those diseases that find relief at those springs. Syphilitic diseases of the skin and mucous membranes, arthritic diseases, cutaneous disorders, and chronic catarrhal inflammations are the principal ailments for which the baths and the internal use of the waters are indicated. The temperature and the taste of the fresh spring water are not disagreeable, and the baths cannot be surpassed. For delicate patients ample provision is made in the tub baths that occupy two floors of the spacious bath-house, while for all who can enjoy the luxury of a swim, the open-air natatorium affords a pool, five hundred feet long, covering more than an acre of space, constantly filled with water from the great hot spring, so that an almost uniform temperature of 85° F. is maintained during the entire year. As the spring water enters and leaves the pool at the rate of two thousand gallons per minute, its transparent purity never deteriorates. In midwinter, when the boys are skating on the frozen river, the natatorium is always warm and perfectly comfortable. It is impossible to give an adequate description of the beauty of the place. The construction of the bath-house alone involved an outlay of one hundred thousand dollars. The great pool is curbed with red sandstone, and its floor is paved throughout with hard red brick. The surrounding lawns are of that vivid green that is so characteristic of Colorado wherever irrigation is practised. The mountain stream that furnishes such delicious water to the Colorado Hotel and to the town, here feeds an array of fountains that fill the sunny air with rainbow-tinted spray, so that the adjacent landscape forms a pleasing contrast with the sombre hues that darken the arid slopes in the background. This aridity, however, forms one of the principal advantages of Colorado as a health resort. Dew is unknown, and rain seldom falls. The subjoined tabular record of observations by the United States Signal Service, at Glenwood, during the year 1889, illustrates this fact. It does, not, however, give any idea of the continuity of sunshine throughout the year. For days and weeks together the deep blue sky remains unflecked by a cloud; and the transparency of the atmosphere, unstained by dust or smoke, is like that of the oceanic belt within the tropics. For this, and for many other reasons, Colorado is remarkably attractive to all tourists and invalids who desire an out door life.

GLENWOOD SPRINGS, COLORADO.

Monthly Rainfall (in inches). 1889.

Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1.24	1.50	1.00	0.54	1.05	0.54	0.51	2.44	0.94	1.53	2.42	3.87	17.59

Mean Temperature (in Degrees). 1889.

Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
18.1	25.1	41.9	52.9	53.8	64.5	73.8	71.0	59.3	49.0	28.1	33.3	47.6

Having sufficiently medicated our mucous membranes and our cutaneous surfaces, and having visited a neighboring cavern in which the heated vapor that escapes from the crevices among the rocks is utilized for the purposes of a Russian bath, a choice of proceedings lies before us. The brain-weary and the invalid cannot find a more restful retreat than the Colorado Hotel. The student of natural science will find unceasing pleasure in tracing the formation and the degradation of these mountains under the successive influence of fire, ice, and water. For the sportsman, on slaughter intent, the vast highlands north of Glenwood afford the happiest of hunting grounds, where, as the above quoted daily newspaper asserts, even the lion (probably a harmless local variety) may be found. But for the majority of tourists the homeward journey cannot be long postponed. We can return by another railway route, giving a different view of the mountains, and crossing the Great Continental Divide at an elevation of eleven thousand five hundred feet by a series of zig-zag loops that leave the famous Horseshoe Bend of the Pennsylvania Railway quite out of comparison. Tarrying for a day at Manitou—a sort of American Chamounix—we may easily ascend Pike's Peak, where, at an elevation of fourteen thousand one hundred and forty-seven feet, under a cloudless sky, the greater part of the State of Colorado lies open to view. To the north, to the west, and to the south, at least five octants of the visual circle are filled with the ranges and peaks of the Rocky Mountains; while far away to the east the plains of Colorado and Kansas extend beyond the horizon. In midsummer and in September the higher peaks alone are powdered with snow. The lower ranges display the gorgeous hues of their many-colored rocks and cliffs, unstained by vegetation, dry and barren as a desert; in this respect differing widely from the Alps of Switzerland, and from the mountains along the line of the Canadian Pacific Railway. But this peculiarity gives to the scene a grandeur that is all its own. Furrowed and worn by ancient glaciers that have long since disappeared, the purple peaks sleep in the silent sunshine, filling to its utmost limits this vast grave yard of dead mountains, like an army of earth-giants fallen in battle and waiting for the twilight of the gods.

From the attenuated atmosphere of Pike's Peak to the lower levels of Colorado Springs and Denver, the transit occupies but a few hours. There we find large and beautiful cities. There we meet the transcontinental lines of traffic, over which we pass easily and rapidly, reaching New York once more within a fortnight from the day of our departure.

Chlorobrom in Sea sickness.—Dr. Arthur Hutcheson, writing to *The Lancet*, says that he used chlorobrom in all cases of sea sickness to which he was called while ship's surgeon on a voyage to and from New Zealand. He always gave it in three-drachm doses in the second stage of this distressing ailment, when retching, headache, depression, and sleeplessness were the prominent symptoms, the hour selected for administration being 10 P.M., in order to secure a good night's rest. The results were very satisfactory. The chlorobrom was always retained and was always followed by sleep (generally sound). The patient awoke much refreshed in the morning, with an appetite and able (except on one occasion) to eat and retain something light.

Prostatectomy.—The perineal operation is somewhat less severe, but decidedly less reliable than the suprapubic; it should rarely be preferred, unless there be urethral complications. In very feeble men it may still be elected.—KEYES.

COCAINE AND ITS USE IN ABDOMINAL SURGERY, WITH REPORT OF CASE.

By W. W. STEWART, M.D.,

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Cocaine will often fill a need belonging to abdominal surgery. When the heart is profoundly weak from sepsis or other causes patients without its use could only be left to die, whereas guarded well by morphine, with atropia and nitrite of strychnia, its depressing effects upon the heart, and the excitation of the nervous system following its use are almost completely done away with. As illustrative of these facts the following case is reported:

On September 19th I received a call from Dr. Thomas W. Tuggle, to meet him for the purpose of examining a patient of his who was suffering from a large abdominal tumor. Patient a negress, forty-two years of age. Up to time of first appearance of this trouble, which was three years ago, had been perfectly well, and all functions normal. About this time she began to be troubled with some pains in lower portion of abdomen, and slight enlargement, more particularly of right side. This process remained almost dormant till nine months ago, when abdomen rapidly increased in size. Within a month from beginning of rapid increase breathing became very labored. Was compelled to sit up all the while. Intra-abdominal pressure became so great that only small quantities of food could be retained in the stomach at a time. Larger quantities would be immediately regurgitated. Lower extremities became slightly œdematous. Bowels regular. Digestion fairly good. Amenorrhœa had existed since the rapid increase in size of tumor. Though patient had never borne children and perineum was intact, she had developed from pressure a large rectocele and cystocele, protruding one inch from vulva. Measurement at sternum, two days before operation, 37 inches; two inches below, 42. At umbilicus, 39½ inches; four inches below umbilicus, 36. Distance from ensiform cartilage to pubic bone, 22 inches. On September 23d, assisted by Drs. Thomas W. Tuggle, Blanchard, and Griggs, the operation was begun. Ether was first administered. Pulse, when anæsthetics were begun, 120. In two minutes patient ceased to breathe, became insensible, and pulse went up to 200. Ether was immediately withdrawn. It was then decided to remove part of the fluid by aspiration, to give more room for respiratory movements, and about one quart was removed with an Allen's pump. After this patient breathed somewhat better, but pulse remained quite rapid and feeble. I then decided to do away with the ether and see what could be done with local anæsthetics. Three grains of cocaine hydrochlorate were used in a solution, injected subcutaneously and into the muscles over the area that would be occupied by an abdominal incision. At the same time there was injected one-quarter of a grain of morphine with $\frac{1}{100}$ of a grain of atropia, also $\frac{1}{30}$ of a grain of nitrite of strychnia, after which pulse dropped to between 90 and 100, full and regular. In seven minutes after injection of cocaine an incision four inches in length was made into abdominal cavity, from which four gallons of ascitic fluid were removed, and a fibro-cystic tumor of the uterus was exposed, extending to within two inches of sternum. The tumor had sprung from the posterior surface of the uterus, obliterating the cul-de-sac of Douglas, and stripping up the peritoneum from the rear, it being itself extra-peritoneal. Anteriorly it was covered by the small intestines with their mesentery. Small intestines were atrophied to a marked degree, only measuring one-fourth of an inch in diameter. Walls were thickened and a purplish blue in color. Mesentery was entirely devoid of fat, and resembled closely mosquito-netting in appearance. The intestines were so laced across the tumor that its removal was impossible, so abdominal wound was closed. Patient suffered no pain from beginning to end of operation, which lasted twenty-three minutes.

The reason this case is reported so in detail is to bring out the interesting fact of the marked intestinal atrophy, which, I think, was caused by pressure of tumor upon mesenteric arteries, and also for the peculiar position which the tumor sustained to the peritoneum and intestines.

In behalf of the use of cocaine I would say I have never performed an abdominal operation so absolutely free from shock. Pulse was much better at end of operation than at beginning. Patient talked quite freely during entire operation, expressing herself as much relieved by the removal of tension, and being enabled to breathe freely. Asked for food immediately on being placed in bed. Convalescence was perfect in every respect.

Progress of Medical Science.

Sphincterplasty.—Dr. Gersung puts on record two cases in which the function of the sphincter ani was restored after resection of the rectum. The unfortunate condition of a patient upon whom it has been necessary to establish an artificial anus is so well known as to make repetition unnecessary. The various apparatus intended to control the contents of the bowel are unsatisfactory. If the fæces are liquid or semi liquid they fail entirely, while if the motions are fully formed the bowel is so entirely relieved at each evacuation that apparatus has only a moral value. The success of the suggestion to use the abdominal or gluteal muscles in the formation of a new sphincter remains to be demonstrated. The patients upon whom the author operated were suffering from carcinoma of the rectum. After resection of the diseased portion it was found possible to draw the bowel down to meet the skin incision. The author then rotated the rectum on its long axis by catching, with a pair of forceps on either side, until the index-finger could be introduced only with some difficulty. The bowel was then stitched to the skin incision. Healing followed rapidly and perfectly. In the first case continence was complete. The second patient had some incontinence of liquid matter at first, but this was rapidly overcome. Digital examination before the patients left the hospital showed that the funnel-shaped contraction, caused by the twisting of the bowel, had changed to an annular constriction, giving almost the same resistance as the normal sphincter.—*Centralblatt für Chirurgie.*

Functional Valvular Insufficiency.—Dombrowski discusses under this heading incompetency at the mitral and aortic orifices, the valves themselves being intact. The mitral valve may be functionally incompetent (1) in obstruction in the arterial system; (2) in lesions of the cardiac muscle; (3) in nervous disease as chorea, hysteria, and in chlorosis when it is due to defective innervation or disturbed nutrition; and (4) in the acute infective diseases (*The British Medical Journal*). The author then records three cases, two of which were fatal. In these latter the insufficiency was due to atheroma of the aorta and disease of the cardiac muscle respectively, the valves themselves being healthy. In both these cases the murmur disappeared for a time during life with temporary improvement in the patient's condition, and in the third case no murmur was to be heard when the patient was discharged. This insufficiency is generally looked upon as due to distention of the mitral orifice itself, but this orifice is surrounded by a tendinous ring. Experimentally the author has shown that when water is introduced under pressure into the ventricle, the insufficiency is due to dilatation of the latter. Clinically, also, the instability of the insufficiency is against its being caused by over distention of the orifice. Dilatation of the ventricle is always present in these cases, and in this way the insertions of the papillary muscles are further away, so that the valves are unable to close the orifice. Thus the term functional insufficiency should be used instead of relative insufficiency in regard to the mitral orifice. The absence of a history of rheumatism, much

dilatation of the heart, a varying loudness of the murmur at each beat, and especially the occasional appearance of the normal sound in place of the murmur are points in diagnosis. The author also draws attention to the murmur being louder, or perhaps heard only during inspiration when the intrathoracic pressure is greatest. At the aortic orifice insufficiency may also occur without valvular lesion, but it is much rarer. Two such cases are related. The insufficiency is here relative. The dilatation of the orifice is due to increased pressure in the aorta, but an abnormal condition of the aortic walls is indispensable. The patient's age, the mode of development, the presence of arterio-sclerosis will help to distinguish it from the incompetence of endocarditic origin. Thus functional mitral insufficiency may arise without a permanent lesion, and may recover if the cardiac muscle can recover, but in relative aortic insufficiency there is a lasting and progressive lesion.

The Action of Electricity on Microbes.—The methods employed by M. d'Arsonval to determine the action of electricity on living matter are already known. The process consists essentially in passing a current through a solenoid, in the interior of which the substance to be experimented on is placed. MM. d'Arsonval and Charrin recently made some investigations as to the effects produced on microbes by the current, selecting for this purpose the bacillus pyocyaneus. A culture of this organism was placed in the solenoid. At the commencement of the experiment a tube of nutrient agar-agar was inoculated with two drops of the culture. After the lapse of ten, twenty, and sixty minutes, respectively, further cultures were made in different tubes, which were all placed in an incubator for some hours. An examination of the tubes then showed that a luxuriant culture of the bacillus had grown in each; the forms of the colonies had undergone no change and were similar to those grown in control tubes; the pathological characteristics appeared also to be the same. The color of the cultures, however, had been to some extent affected; for while in the first two tubes the organisms exhibited an intensely green color, which was scarcely less vivid in the second than in the first tube, the color in the third and fourth tubes was much less marked. These experiments seemed to show, then, that the electric current had some effect upon the organisms, although the action was not very marked. Further investigations in the same direction would be valuable and might possibly throw some light on the electrical state of the atmosphere as affecting the course of certain epidemics.—*The Lancet.*

Complete Prolapse of the Rectum; Amputation.—Dr. Walter Edmunds, of London, reports the following case in the November issue of the *American Journal of the Medical Sciences:* The patient was a single woman, aged twenty-five years. She had suffered for many years from a prolapse of the rectum, for which no treatment had been of any avail. It was decided to perform the operation of removing elliptical portions of the mucous membrane, and thus narrowing the orifice. After the operation, as long as the patient remained recumbent, the bowel retained its position, but on her getting about, the prolapse recurred and became as bad as before. Three months after this operation a second attempt was made. It consisted in excising on each side a considerable portion of the distended external sphincter and bringing the free edges together. But, as before, when the patient began to get up again, the prolapse recurred. Encouraged by the perusal of a successful case of excision of a prolapse of the rectum by Treves (*The Lancet*, February, 1890), the author decided to advise the patient to submit to a third operation, to which she consented. Under an anæsthetic, the patient was placed in the lithotomy position, with the pelvis well raised, to avoid, if possible, any prolapse of small intestine into the peritoneal pouch, which it was expected to encounter. The prolapsed rectum having been drawn well down, a transverse incision was made in front of the prolapse at the junction of skin and mucous membrane. On deepening this incision a pouch of the peritoneum was opened, and the extreme lateral boundary of this to the patient's left (and operator's right) was sought. Both the parietal and the visceral layer of the peritoneum (on the rectum) were divided in stages from left to right, the two layers sewn together, and in this way the abdominal cavity was shut off. Nothing was seen of the small intestine. The amputation of the prolapsed rectum, flush with the surface, was then completed; bleeding-points were secured and the mucous membrane was sewn to the skin all around. The amputated portion contained the greatly dilated sphincter and eight square inches of peritoneum, a prolongation of Douglas's pouch. The patient made a satisfactory recovery. She was last seen fourteen months after the operation. She was then quite well and could walk several miles. There was no prolapse, no incontinence of fæces, and no contraction of the orifice. The line of junction of the skin and mucous membrane had retreated somewhat upward, and at that level a band could be felt, suggestive of an internal sphincter, but it probably consisted only of connective tissue. Other cases of prolapse of the rectum treated by amputation are recorded by Partridge in the *Indian Annals of Medical Science*, 1871, No. 27; by Raye (at Calcutta), in *The Lancet*, July, 1886, and by Treves, in *The Lancet*, February, 1890.

Salacetol in the Treatment of Diarrhœa.—Dr. Bourget presents his studies upon this remedy, which is a combination of salicylic acid and acetol, and possesses all the chemical and physiological properties which make salol an intestinal disinfectant of the first rank (*The American Journal of the Medical Sciences*). It is a white crystalline powder, insoluble in cold water; is first decomposed in the alkaline fluids of the small intestine; the salicylic acid accomplishes the asepsis and the acetol is rapidly eliminated as acetone. This remedy contains seventy-five per cent. of salicylic acid, against the sixty per cent. of salol. It apparently eliminates the salicylic acid more rapidly in a solution of castor oil, because the latter provokes a more abundant secretion of the intestinal fluids. He has treated a large number of infectious diarrhœas, and on only one occasion was he obliged to resort to laudanum. The dose is thirty to forty-five grains in an ounce of castor-oil, taken in the morning, fasting. Rarely is it necessary to be repeated on the following day, although no inconvenience results should it be repeated. Under this dosage the sulphur compounds (indican, cresyl-sulphates, skatoxyl sulphate) are diminished and reach their normal (one-tenth of the simple sulphate) within three or four days, showing that disinfection is rapid. Good results were also obtained with this remedy in subacute and chronic rheumatism.

The Utility of Saline Enemata in Hemorrhage.—Dr. Warman refers to recent improvements in the treatment of patients bleeding to death, and more particularly to the beneficial results of saline enemata. The author enumerates the objections to the intravenous and subcutaneous methods, the principal difficulties in the former being the impracticability and the danger in the use of an excessive quantity, and in the latter the slow absorption of the injected fluid. Being unable to use either method in a case of abortion, the author attempted a rectal injection, which was very successful. Subsequently he treated twenty-eight patients in the same way, most of whom when seen were much collapsed from post-partum hemorrhage. The typical rigor (associated with the gradual rise of temperature) very quickly became evident, the pulse returning and the respiration becoming normal in all cases A teaspoonful of salt was dissolved in a quart of water having the same temperature as the room, this having a more rapid effect than a solution at a higher temperature. The author holds that the salt in itself possesses marked hæmostatic properties, in support of which he adduces various observations. The proceeding is without danger and the only drawback is the occasional

inability of the sphincter to retain the solution. This the author overcomes by placing the patient on one side, allowing the solution to flow slowly and then pressing on the cannula through the vagina. In severe cases this trouble was least frequent, as in these he found absorption to take place most rapidly. The author recommends the same treatment in all severe hemorrhages, excepting those from the intestine.—*Therapeutische Monatshefte.*

Clinical Department.

COMPLETE DENUDATION OF THE TESTICLES; RECOVERY.

By J. A. BAUGHMAN, M.S., M.D.,

NEOGA, ILL.

Within the last few months two interesting cases of erysipelas of the scrotum came under my observation, a report of which I hope may prove valuable to the readers of the Record.

The first was the case of a boy, twelve years of age. The scrotum was slightly bruised upon the horn of a saddle, after which the ordinary signs and symptoms of erysipelas supervened, the most prominent of which was a great distention of the scrotal tissues from serous infiltration.

The constitutional treatment employed in the case was the tonic supportive form; the local measures used being the free scarification of the scrotal integument, making about twenty half-inch incisions extending through the skin, from which a constant dripping of serum continued for four days. Over the perforated area a moist sublimated cloth was constantly applied, with the intention and apparent result of preventing suppuration, the danger of bichloride-poisoning by absorption being much lessened by the continuous exuding of serum from the cuts. Thanks to the scarification the case recovered without any disastrous results. It remained for the second case to show the merciless hand of disease and the surprising powers of the healing process.

Stephen W——, aged forty-three, of German descent, and good family history, in June, 1891, slightly scratched himself with a barbed wire midway between the anus and base of the scrotum, immediately on the raphē. The wound being very insignificant scarcely attracted his attention.

In a few days a so-called "Eclectic" was consulted for what afterward proved to be the premonitions of erysipelas, viz., headache, pyrexia, and general malaise.

The medical attendant's attention was not directed to the wound, which was now giving signs of inflammation and swelling in the direction of the scrotum.

The proneness of the scrotal tissues to abundant serous exudations was not wanting here, and the result was, in a few hours, an enormously distended sac. Instead of scarifying or leeching to reduce the abundant serous infiltration, poulticing was the treatment employed.

The *vis inertiæ* of the scrotal tissues being below par as compared with other soft tissues in general, the inevitable result was stasis and coagulation necrosis. The patient remarked that he had removed the dead tissue with his fingers, and that it looked much like flakes of coagulated egg albumin.

The loss of scrotal tissue was complete, extending well up to the pubis and about an inch along the lower side of the penis in the position of the raphē. At this stage the case fell into my hands. The raw testicles dangled between the legs. They were swollen to twice their normal size, their surface freely suppurating. The surrounding tissues had a malignant appearance; the angry-looking surface being honeycombed with small sinuses. The left inguinal region presented a severe lymphadenitis, from perhaps a simple infection, as no specific taint was visible in the patient or his nine healthy children. My belief from observation and investigation was that under proper treatment the wound would heal without any operative procedures. In private practice the medical attendant has more than the obstacles the case itself presents to surmount. Overcoming the opinions of the laity and machinations of jealous competitors in such a case is no small achievement.

Although in most cases leaning toward operative interference where such measures are justifiable, I treated this on the "expectant" plan. I doubted the possibility of nourishing a large enough piece of integument to cover the swollen testicles were I to attempt a plastic operation. The ragged condition of the surface and the danger of destroying the tunica albuginea or fibrous covering of the glands, and thus destroying the testicles, precluded the idea of curetting preparatory to anything like Thiersch's method of skin grafting.

My first attempt was to arrest the excessive suppuration. This I incompletely attained by the free use of boric acid, irrigating the parts every three hours with a saturated solution and then dusting the dry acid over the wound. Complete disinfection was impossible by this method on account of the many sinuses. After getting the suppuration to the minimum repair slowly began to manifest itself.

The acute erysipelatous invasion had now entirely subsided. The patient's general health at this time was fair to good, temperature normal, appetite fair, bowels slightly constipated. Healing for a week progressed slowly. The lymphadenitis in the left inguinal region was painful at night and showed a disposition to spread. The skin over the tumefaction was hyperæmic and adherent to the underlying tissues. The boundary line was poorly defined, fluctuation being nowhere perceptible. This complication gradually subsided under the application of heat and tincture of iodine. The scrotal tissues being largely of the connective variety are equalled in their aptness to slough only by the readiness with which they are reproduced, yet for a short period repair seemed to cease. In consultation with Dr. Clark, of Effingham, castration was decided upon. While waiting two days upon the subsidence of the lymphadenitis in the inguinal region, repair was again manifesting itself. The case now progressed favorably for a few days, when a hasty messenger announced that the sufferer was bleeding to death. Thinking it was the spermatic artery giving trouble I went prepared to castrate. Hemorrhage had ceased upon my arrival, examination revealing only a corroded vein. A bit of styptic cotton was applied to this and it gave no further trouble. From this time the case ran an uneventful career with the exception of suppuration in the tumefied inguinal region above mentioned. Repair rapidly advanced until now a tolerably roomy scrotal sac, perfectly healed, is the result. A slight degree of mania was observed in this case at various times, a condition noticed by several writers in grave testicular diseases.

The prolonged use of boric acid on this large, raw surface gave cause for study. At one time during its use the patient suffered a violent bloody diarrhœa, bloated face, and a very diffuse general erythematous eruption, all effects of this drug noticed by other writers. Discontinuance of the drug was promptly followed by relief. Boric acid being supplanted in the case by iodoform, repair was very much more rapid; arguing decidedly in favor of iodoform.

To recapitulate: 1. In overdistended scrotal tissues scarify freely to avoid sloughing. 2. The scrotal tissues though easily destroyed have a wonderful reparative power. 3. In complete denudation of the testicles, castration or plastic operations are not always the most imperative procedures. 4. The large veins occupying the scrotal region are liable to cause alarm from bleeding. 5. Mild mania is often noticeable in grave testicular affections. 6. Boric acid is not absolutely poisonless. 7. Iodoform excels boric acid as an application to granulation tissue.

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DANGERS TO STATE HOSPITALS FOR THE INSANE.

THE care of the insane in public institutions always vitally interests the people. They are willing to see the criminal punished and the tramp committed to the workhouse, but they resent the ill-treatment of the insane. For the latter class there is universal sympathy. No building is too costly for his residence if it conduces to his well-being; no luxury is denied him if it is essential to his happiness; no expense is spared for physicians or attendants if they can contribute to his recovery. The people of the State of New York have especially been distinguished for their generous treatment of the insane. They have provided the most costly hospitals for their residence in this or any other country; they have equipped these hospitals with every condition necessary for the physical comfort of the inmates; they have supplied them with every appliance which science could suggest for the proper treatment of insanity.

The last and most significant act of the people was the removal of the pauper insane from the poor-houses to the State Hospitals, in order that this wretched class of dependents might have the benefit of the better food, clothing, housing, and nursing of these institutions. The provisions of the Act show that the purpose of the Legislature was to provide an inexpensive but thoroughly commodious class of buildings for these poor-house inmates, in such relations to the State Hospitals as to come under their general management, and yet not to interfere with their special methods of administration. The fundamental idea of the projectors of the State Care Act was as follows, viz.: 1. Maintain the present State Hospitals for the acute insane, and perfect their arrangements, equipments, and management by every means necessary to the cure of those committed to them, in order that they might be made, in the highest and best sense, curative institutions. 2. On suitable farm lands, removed from the hospital, but not too remote to prevent direct and easy general supervision by the management of the hospital, erect a variety of comparatively cheap buildings, and thus create a colony, to which would be transferred the incurable inmates who now overcrowd the hospital wards, and the pauper insane of the poor-houses. It was believed, and we think justly, that if this policy was carried out, the existing State Hospitals, relieved of the incurable insane who fill their wards and greatly interfere with classification and discipline, would so improve their methods of treatment that a far larger percentage of recoveries would be secured than was hitherto reported or even deemed possible. At the same time there would gradually be organized a colony of chronic or incurable insane, under the management of each hospital, which would become largely self-supporting, and would, by means of industries, schools, discipline, and amusements utilize in a healthy manner every remaining faculty of each individual inmate. A system of lunacy administration based on these views, and intelligently carried out by the hospital authorities, aided by intelligent State supervision and advice, would have been worthy of the Empire State.

The question is beginning to be widely agitated among those interested in our public charities: What has been the effect of the execution of the State Care Act upon the State Hospitals, and upon the pauper insane who have been removed from the County Asylums? It is evident that there is a growing public sentiment adverse to the methods of administration of the State Care Act by the Lunacy Commission. It is alleged that not only have the pauper insane not been greatly benefited by the change from the County Asylums, but the whole procedure is tending to convert the State Hospitals into immense pauper establishments. The public prints report interviews with the Commissioners, detailing the economy with which they are now running the institutions; one has succeeded in diminishing the wages of employees, another has found a method of purchasing the food-supplies at cheaper rates, and a third has stricken from the supply-list that solace of a disturbed mind—tobacco!

These reports from the Commission are very familiar reading, for the same statements were formerly annually rehearsed at the meeting of the Superintendents of the Poor, who detailed with great minuteness their methods of keeping the insane poor at low rates. No reports come from the Commission announcing new and successful methods of curing the insane which they have introduced into the hospitals, nor that they have rendered these hospitals far more efficient in the cure of the acute insane by reforms in the management, better equipment, diminished crowding, or a higher grade of attendants.

We believe the State Care Act was a wise and beneficent measure, and if administered by a judicious and experienced body it would have accomplished a most important reform, both in the care of the poor-house insane and in the higher development of the resources of the State Hospitals for restoring the acute insane to health. But we are forced to the conclusion that the pauper insane transferred from the County Asylums will not be greatly benefited by the change, and that the State Hospitals, once the pride of the State, are rapidly deteriorating as curative institutions. We give this note of warning while it is yet possible to arrest the progress of an administration of the State Care Act, which will involve our hitherto greatest and most useful public charities in irretrievable ruin.

Perineal Section in Rupture of Urethra.—Permanent catheterization, by avoiding introducing the instrument too far into the bladder, and observing strict cleanliness by regular antiseptic irrigations, will be found to possess many advantages. Sutures are advised in closing the rent in the urethra.—WHITE.

BATTLE-FIELD AID.

The return from Europe of Medical Director of the Navy Richard C. Dean, after six months spent in the investigation of field hospital service abroad, leads us to anticipate some interesting data upon this very important question when his report is made. From what Dr. Dean has already said in a *Herald* interview it appears that Germany is the only power having a regularly drilled Hospital Corps. England seems to have made less advance in the matter of handling wounded soldiers than other nations, still clinging to primitive methods, while France does not seem to be much better off. Italy shows a praiseworthy spirit in pushing reforms, and, as is known, the king has recently given a prize of forty thousand francs for the best, most portable, and most improved method of rendering first aid to the wounded. The importance of some method of transportation not requiring too many attendants has long been recognized, but the problem of quickly, safely, and comfortably removing a large number of men to the field hospital remains to be solved. In this connection we would call attention to the Red Cross Ambulance recently introduced and described with illustrations in *The Lancet* of August 26, 1893. The carriage is mounted on half-elliptic steel springs, so that vibration is reduced to a minimum; the wheels are like those of a tricycle; two behind and one in front, lightly constructed and with rubber tires. A jointed hood fits over the litter, and this, it seems to us, might be made of some bullet-proof material. One man is sufficient to propel the ambulance, but unfortunately it gives accommodation to but one occupant at a time.

The improvement which suggests itself to our minds would be to utilize for this purpose a real tricycle, having seat, pedals, and propelling gear; then the patient having been disposed of, the attendant could mount the machine with the rolled-up litter suspended underneath or at the side, and quickly return to the field of carnage.

SUDDEN DEATH FROM HEART-FAILURE.

The frequency of heart-failure as a cause of death has caused much comment from the laity, and brought forth a certain amount of grim humor concerning the diagnostic errancy of physicians. For it has been assumed that in most cases of sudden death doctors give heart-failure as a cause, in order to hide their ignorance of the true complaint. This view of the matter is unjust. Boards of Health require the statement of the immediate cause of death, and naturally in most acute maladies, as well as in some that are chronic, it is failure of the heart. But, aside from this, sudden death due directly and indirectly to failure of the heart is not very uncommon. In an article in the *Boston Medical and Surgical Journal*, Dr. W. T. Councilman has gone over this question from the pathologist's point of view. Dr. Councilman does not consider cases of death due to the action of poisons or traumas; leaving out these, he enumerates the causes of sudden heart-failure somewhat as follows: First, emboli and thrombi developing in the heart or brought to it, and plugging its cavities; next, rupture of valves, or over-distention of the heart from too tight an aortic orifice; diseases of the coronary arteries, which lessen the lumen and cause degenerative changes in the muscle. As a result of this we have the so-called myocarditis, infarctions, and fatty degenerations. Rupture of the heart may occur from these last conditions, and rupture is not excessively rare as a cause of sudden death. Still, much the larger number of deaths in coronary disease is due to other causes than rupture of the muscle, and disease of the descending branch of the left coronary is most frequently present in these fatal cases.

Sudden death from heart-failure may be considered as most frequently due to coronary disease. Hence it is oftener seen somewhat late in life. Contrary to the usual belief, persons with valvular heart disease do not die suddenly, especially if it be the mitral valves that are affected.

A PLEA FOR THE "POOR MAN'S DOCTOR."

We feel disposed to say a word on behalf of him who, in a recent discussion on the dispensary question at the New York Academy of Medicine, was styled the "poor man's doctor," and declared to be on the average "either inexperienced, incompetent, or a scheming quack."

With this last statement we are disposed to take issue. Who is the poor man's doctor? It is, perhaps, somewhat difficult to answer this question, but we presume it is (in the sense of the discussion above named) the doctor who lives among the tenement-house population, and derives his income from practice among this class of our citizens. This definition is not, however, entirely satisfactory, for much of the tenement-house practice is done by men who live nearer the centre of the north and south dividing-line of the city.

The energetic efforts of the County Medical Society have practically cleared the city of illegal practitioners. The poor man's doctor, therefore, is a graduate of some regularly incorporated medical college. As such, he presumably knows something, and in the trial of the charge brought as to his being on the average inexperienced, incompetent, or a scheming quack, he is, be it remembered, the defendant and not the plaintiff. The *onus probandi* lies most emphatically on the side of his accusers.

Poverty and quackery do not always flourish on the same soil. The average quack practises medicine only because he sees more money in it than in other callings, and he finds his dupes not so much among the very poor as among the middle classes. The more intelligent and the well-to-do people are too enlightened to be taken in by his schemes. The poor have too little money for him to waste his energy on them.

Very many of our leading physicians who to day have "gilt-edged" practices began their work among the poor people. Their ten-dollar fees began on a fifty-cent foundation, and there are young men in New York to-day who are doing their largest amount of work among the tenement population charging a dollar a visit, which is, we believe, by common custom, the usual charge in the tenements. The vast majority of these men are not inexperienced or incompetent. A large proportion of them have served a regular term in some hospital. They have become attracted to this great city of ours, and have determined to cast in their lot with its citizens. They have no capital to keep them in idleness, and are obliged to settle where the expenses of living are small, and where

they can be reasonably sure of making both ends meet from the start. They are ambitious, and realize that to be thought worthy of many things they must be faithful in the few. They give, therefore, their best energies to the patients with whom they come in contact. They treat their cases just as well as their more fortunate brethren on the leading streets and avenues do their own, and considering the disadvantageous hygienic surroundings of their clientèle, their success is just as great. Twenty years from now they will stand among the leaders of our local profession. To call such men (and they perhaps make up fully one-half of the "poor man's doctor" category) incompetent and inexperienced is alike unjust and uncharitable.

The object of this whole argument against which we have been protesting is apparently to justify the attendance of the poorer classes upon dispensaries. Of worthy medical charity we have always been the friend, but the trouble has always been that, if reasonably well-to-do people are once engulfed in the dispensary maelstrom they never get out of it. They remain in the class which freely patronizes these institutions, and which has no business there. The attitude of the modern Board of Managers is one of eager welcome to all who can possibly be made to attend, and not one of discrimination between the worthy and unworthy. To justify this attitude by the assertion that the poor cannot find for a minimum fee competent physicians to attend them at their own homes, is contrary to fact, false in logic, and pernicious in its sociological relations.

News of the Week.

Planning a Hospital for Staten Island.—A number of ladies of Staten Island have arranged plans for the organization of a hospital, to be called the Staten Island Hospital. It is intended to open the hospital about the middle of next month. Nine physicians on the island have signified their consent to become members of its staff.

The Society for the Prevention of Cruelty to Animals recently arrested a member of a society whose object is the euthanasia of cats. One of the latter organization was caught chloroforming a cat in order to prevent it from starving to death. Philanthropy sometimes becomes a mental disease.

Official Declaration of the Contagiousness of Consumption.—Dr. Herman M. Biggs, chief inspector of the division of pathology and bacteriology of the New York Health Department, has presented a report to the Board of Health recommending the adoption of measures for the prevention of consumption, which he officially declares to be a contagious disease. He says that last year six thousand deaths due to tuberculosis were reported to the Health Department, and that the time has come when the health authorities should assume surveillance of consumption. Dr. Biggs makes these suggestions:

"That there be systematically disseminated among the people, by means of circulars, publications, etc., the knowledge that every tubercular person may be a source of actual danger. That all public institutions be required to transmit to the Board of Health the names and addresses of all persons suffering from pulmonary tuberculosis within seven days of the time when such persons first come under observation. That special inspectors be assigned to duty for the investigation of this disease, and whenever the department has become aware of the existence of families or premises where tuberculosis exists or has recently existed, it shall be the duty of these inspectors to visit such premises and deliver proper circulars and give suitable information to the persons residing there, and take such specific measures of disinfection as are required in each case. That the Board urge upon hospital authorities the importance of separation, so far as possible, of persons suffering from pulmonary tuberculosis from those affected with other diseases, and urge that proper wards be set apart for the exclusive treatment of this disease. That the Department of Charities and Correction be requested to set apart one of the hospitals under its charge, to be known as "The Consumptive Hospital," to be used for the exclusive treatment of this disease, and that, so far as practicable, all inmates of the institutions under its care suffering from tuberculosis be transferred to this hospital."

The report was referred to the Sanitary Committee of the Board for consideration.

The Death of Dr. Charles Warrington Earle, of Chicago, on November 19th, removes a physician well known in New York. He was a member of the staff of the Cook County Hospital and of that of the Wesley Hospital. He was Professor of Operative Obstetrics in the Post-graduate School, and had held a chair in the Woman's Medical College. He was a native of Vermont and in his forty-ninth year.

Dartmouth Medical College.—The graduating exercises of the Medical Departmant of Dartmouth College took place Tuesday evening, November 21st, a class of twenty-eight receiving degrees. The Medical Faculty have just passed the following vote: "That at the end of one full year of the study of medicine, and one course of lectures in this school, an examination will be required in descriptive anatomy, physiology, and chemistry. That at the end of two full years of the study of medicine in this school, an examination will be required in descriptive and regional anatomy, and further examinations in physiology and chemistry. The examinations so passed, if satisfactory, shall stand as final."

Raw Oysters and Typhoid.—Two persons in Berlin are reported to have died of typhoid fever, contracted by eating raw oysters. This statement is cabled from Europe. It will require some verification before it can be accepted. If typhoid bacilli get into oysters and grow there, it will be a very new habit, for they do not grow in brine, so far as has been known.

Prize of the American Neurological Association.—The American Neurological Association offers a prize of $200 for the best essay on any subject connected with Neurological Science. This competition is open to physicians who are legal residents of States in North and South America. Essays must be sent to the Secretary of the Association on or before the first day of May, 1894. Each essay shall be accompanied by a sealed envelope containing the name and address of the author, and bearing on the outside a motto, which shall also be inscribed upon the essay. Essays shall be type-written, in either the English or French languages, and with the

pages securely fastened. The Council of the Association reserves the right to reject any or all essays judged unworthy of the award. Each essay must exhibit original research, and none will be accepted that has previously been published. Græme M. Hammond, M.D., *Secretary*, 58 West Forty-fifth Street, New York City.

Harvard Football Casualties.—During the last four years a good many matches have been played at Cambridge and elsewhere by Harvard teams. The following are the casualties reported by surgical authority: Four fractures of the metacarpal bones, one fracture of the fibula, two dislocations of the elbow, one dislocation of the humerus, one probable fracture of a rib. Such injuries, when received by men in training, are recovered from in half the time necessary for recovery in other subjects.—*Boston Medical and Surgical Journal.*

A Medal Worth Having.—The gold medal which was presented to Professor Virchow, of Berlin, on the occasion of his seventieth birthday, recently, weighed nearly six pounds, and represented a value of about £350 in pure gold. Mme. Virchow received a silver, and each of the Professor's children a bronze, replica of the medal. The obverse shows the bust of the Professor, with the legend: "Rvdolphvs virchow. Pommeranvs Civis Berolinensis: Ætat LXX." On the reverse is an allegorical group representing the genius of investigation-winged, and carrying a flaming torch in the left hand, while with the right he lifts the veil of Isis. At the foot of the Isis column is a table with the representation of the Berlin Pathological Institute. In the background Science, on her lap an open volume, is seen contemplating a skull, while around her are other pathological emblems. The inscription on this side is "Omnis cellula a cellula."

The Late Dr. John C. Peters.—At a meeting of the New York Academy of Medicine, held November 2d, the following resolution was adopted:

Resolved, That there be placed upon the minutes of this meeting the following as a brief expression by the Academy of its appreciation of the character and professional merit of John Charles Peters, M.D., whose death has recently been announced. During a long life of professional activity he gave generously of money, time, and effort toward the promotion of science, the welfare of the profession and community, and the interests of the Academy. As an author, editor, and bibliophile he was eminent. He was foremost in the foundation of the New York Pathological Society, and contributed greatly to its successful development. His studies of Asiatic cholera are recognized as most important contributions to the knowledge of the profession both here and abroad, and his generous gift of the literature of this subject forms one of the most complete departments of our library. The incomplete list of nearly thirty titles of his works, given in the Index Catalogue of the Library of the Surgeon-General's Office, a large part of which relate to elaborate treatises, illustrates his activity as a writer and the comprehensive character of his knowledge. *The Medical Gazette*, the "Transactions of the Pathological Society and the Academy," are some of the evidences of his rare editorial ability. The numerous positions of honor and trust to which he was elected in the many organizations of which he was a member, evince the confidence of his associates and his remarkable executive skill. Few matters related to public sanitation failed to elicit his active support, and his communications through the secular press, whether anonymous or with his name were of great influence in directing public and legislative action. His intelligent supervision of our library and his influence with others, were the causes of much of its subsequent prosperity. His keen sense of personal dignity and probity made his example and precept respected by all who knew him, and his genial temper, kindly humor, and modest avoidance of anything that might be regarded as obtrusive, have endeared him to all his associates. The Academy was ever honored by his fellowship, and his friends were always the gainers in their relations with him.

Influenza is again showing itself in Russia and throughout Europe. The attacks are sudden and are attended with severe muscular pains and great prostration. Its general type is catarrhal, affecting the eyes and throat, and tending toward pneumonia. From present indications we may expect to hear from the disorder on this side of the Atlantic in a short time.

The Managers of the Utica Asylum and the State Commissioners in Lunacy.—The Managers of the Utica Asylum very properly protest against the wholesale insinuating charges of the Commission made, in a recent issue of the *New York Tribune*, against the bad management of the State Asylums. "We have," say the managers, "no fault to find with their successful efforts at blowing their own horn, so long as they do not do so at the expense of other men's reputations."

"Commissioner Reeves is quoted as saying that they have found State Hospital superintendents feeding numerous 'relatives, cousins, aunts, and nephews,' at tables supplied by the State. From these they have cut off maintenance. They 'have also declined to consent to a large number of people attached to the hospitals having horses and carriages—at least at the State's expense.' Failure to specify where, if anywhere, this is going on, serves to cast suspicion upon all, and it is an unmanly and undeserved insinuation. It is, moreover, casting suspicion upon all the managers of these several institutions, by leaving the door wide open to suspect that, knowing these abuses, they neglected to remedy them. If the Commissioners wish to stab anybody, it would be more manly to furnish a bill of particulars along with their complaint. The Managers of the Utica State Hospital respectfully protest."

Dr. MacDonald believes that patients should be compelled to work. At Utica the patients have always been asked to do what they could without risk to their health, though the officers have sought always to remember that insane persons are not convicts who can be forced to do a keeper's bidding.

Avoiding discussion of the merits of the Commission's anti tobacco crusade, the extravagant statement of the amount of money thus saved to the State can be easily refuted. From actual returns received from seven of the eight State hospitals, covering a year's consumption, it would appear that the expenditure for this item, for each hospital, averages $372, a total expenditure for the eight hospitals of $2,976, that is, less than thirty-five cents per year per capita, instead of a total expenditure of $15,000,

as alleged by Commissioner MacDonald. Moreover, this corrected estimate includes large quantities of tobacco for which the institutions were reimbursed by attendants and patients.

The protest thus concludes: "The whole tenor of the article of November 27th is that of a slur and insinuation upon managers and superintendents which a fair degree of self respect cannot permit to go unnoticed. The Commission is a centralization of power, and is putting into three men's hands more authority than was hitherto intrusted to the several boards of managers. If any manager, any superintendent, or any board of managers, has been recreant to this trust, it is proper to publish that fact, but it is neither dignified nor decent by generalization to indulge in wholesale defamation. The *Tribune*, we are sure, would be the last paper knowingly to grind any such axe."

Manhattan Hospital, New York.—Dr. H. C. Coe has been appointed Consulting Gynecologist to the Manhattan Hospital.

Dr. W. H. Holcombe, of New Orleans, died November 28th.

Mr. Gladstone's Physician.—Dr. William H. Broadbent has been chosen physician to Mr. Gladstone, in place of Sir Andrew Clark.

Complimentary Dinner to Professor R. W. Taylor, M.D.—A complimentary dinner was tendered on Wednesday evening, at Hotel Savoy, to Dr. R. W. Taylor by the attending staff of Charity Hospital, on his resignation as attending Surgeon of that institution to accept a similar position in Bellevue Hospital. The entire staff of Charity Hospital was present, with several invited guests. Dr. Thomas H. Burchard was the toast-master. Speeches were made by Drs. T. H. Burchard, R. W. Taylor, Commissioner H. H. Porter, Ex-Commissioner Thomas S. Brennan, Drs. George F. Shrady, Frank P. Foster, H. J. Garrigues, Thomas H. Allen, H. Goldthwaite, James E. Kelley, Mr. Massey (Caswell, Massey & Co.), Dr. Blanchard, of Fort Hamilton, and J. Blake White.

Dr. L. N. Luck, of Penn Yan, was stricken with apoplexy on Monday and died in a few hours. He was one of the prominent physicians of the Yates County Medical Society. He was fifty years of age.

Prize of the Alumni Association of the College of Physicians and Surgeons of New York.—The above prize, amounting to $500, will be awarded in June, 1894. It is open for competition to the alumni of the College, and is awarded for the best medical essay submitted upon any subject the writer may select. The conditions upon which the prize is awarded are as follows: If no one of the competing essays be deemed sufficiently meritorious, the prize is not awarded. An essay, in order to be held worthy of the prize, must contain the results of original investigations made by the writer. This prize is not awarded to any essay which is the work of more than one author, or which is at the same time submitted for another prize. Each competitor is required to send with his essay to the Prize Committee a statement that these requirements have been complied with. Competing essays must each be marked with a device or motto, and accompanied by a sealed envelope, similarly marked, containing the name and address of the author. Essays in competition for the prize to be awarded at commencement, 1894, must be sent to the Secretary of the Alumni Association on or before April 23, 1894.—T. M. Cheesman, M.D., Secretary Alumni Association, 46 East Twenty-ninth Street, New York.

The Late Dr. Phillippo.—Mail advices received last week report the death of the Hon. James Cecil Phillippo, in Jamaica, B. W. I. The late Dr. Phillippo was a son of the late Rev. Mr. Phillippo, a pioneer Baptist missionary to Spanish Town, Jamaica. The doctor's brother, who survives him, is Sir George Phillippo, Chief Justice of Hong Kong. Dr. Phillippo graduated as an M.D. at the University of Edinburgh, some forty years since. His lifetime was spent in Jamaica. He was President of the Medical Council of that island at the time of his death. Four times he was elected President of the Jamaica Branch of the British Medical Association. Previous to his recent election as President of the Legislative Council of Jamaica, he was a member of the Privy Council of the island. He had been a contributor to the medical press, including the MEDICAL RECORD. He was author of a book on the climate and springs of Jamaica. At the late Pan-American Medical Congress in Washington, he took a prominent part in reading two papers on "Jamaica, her Climate, Demography, etc." He was a firm believer in the island's future and perfect winter climate. Within a year, he had retired from active practice and had settled on a fine estate between Kingston and Constant Springs. He was a faithful and conscientious worker, and was greatly respected by all classes. He leaves a widow and several sons and daughters.

Mortality Report of New York State for October.—The reported mortality for October has decreased from a daily average of 311 to one of 290; in the corresponding month of last year about 100 more deaths occurred. The death-rate for cities and large villages was 18.50 per 1,000 population, and of the rural parts of the State about 15.50, that of the entire State being 18.00. The mortality in rural towns is much less than that of last month, and less than it was a year ago. The decrease applies equally to all parts of the State. From the principal zymotic diseases, except from diarrhœal diseases which caused 861 fewer deaths than in September, there has been an increase in mortality. The autumn increase in typhoid fever, which was low last month, is greater than usual, fifty more deaths occurring than last October; the increase has been in the Maritime and Western Districts. There were 185 more deaths from diphtheria than in September, and the increased prevalence over last year continues, being confined to the Southern and Central Districts; its prevalence is noted in Haverstraw, Tivoli, Sandy Hill, Moreau, and Ilion. There is a slight increase in scarlet fever, but it is less prevalent than last year. Measles and whooping-cough are decreasingly prevalent and cause but few deaths. Small-pox is diminishing in New York and vicinity; a case of varioloid developed in Geneva early in November, the origin of which has not been satisfactorily determined. The temperature for the month was a little above the average of 52°; killing frosts occurred about the 17th. The rainfall was generally deficient, except as reported from the New York station.

Society Reports.

SOUTHERN SURGICAL AND GYNECOLOGICAL ASSOCIATION.

Sixth Annual Meeting, Held in New Orleans, La., November 14, 15, and 16, 1893.

(Continued from p. 733.)

SECOND DAY, WEDNESDAY, NOVEMBER 15TH—AFTERNOON SESSION.

Wyeth's Bloodless Method in Amputation at the Hip, by DR. F. W. PARHAM, of New Orleans. He prefaced his own paper by reading some extracts from a paper by Dr. John A. Wyeth, read before the last meeting of the New York State Medical Association. He made use also of the statistics kindly furnished him by Dr. Wyeth. These statistics were as follows: Sarcoma, 17 cases, 2 deaths; 11.76 per cent. Inflammatory bone disease, 18 cases, 3 deaths; 16.6 per cent. Violence, 4 cases, 4 deaths; 100 per cent. Nerve injury, 1 case, no death. Total for disease, 36 cases, 5 deaths; 13.88 per cent. For injury, 4 cases, 4 deaths; 100 per cent. For both disease and injury, 40 cases, 9 deaths, or a total of 22.5 per cent. In this list is one case now published for the first time. Boy, aged three, sarcoma of thigh, recurrent, amputated by Wyeth's method by Dr. Parham, October 5, 1893, discharged, cured, October 24, 1893. These statistics show a mortality reduction for civil practice of at least one-half. Ashhurst's statistics gave 40.2 per cent. for disease, 82 4 per cent. for injury, or a total of 64.1 per cent. Leming gives gunshot wounds 98 per cent., disease, 42 per cent..

Dr. Parham referred to the various methods proposed for controlling hemorrhage at the hip and spoke of the various modifications of the Wyeth method. He specially urged that the outer pin should be placed higher, so that the disarticulation might be done before the tube was removed. He favored the suggestion of Thomas, that in placing the pins, the tube should be put around first at the proper place, and that then the pins should be put in at the lower border of the tube. He believed that the bone should be disarticulated entirely without sawing. In conclusion, the reader remarked, "I am inclined to agree with Murdoch that the method of Wyeth is the best yet devised."

DR. W. B. ROGERS, of Memphis, Tenn., read a paper entitled "Laparotomy in General Surgery—Report of Twenty cases."

Operative Procedures for Carcinomatous Tumors of the Breast.—This paper was read by DR. J. MCFADDEN GASTON, of Atlanta, Ga. He said a point of great moment, as to the extent of operative procedure, pertains to the leaving of any portion of the mammary gland, when only partially implicated in the carcinomatous growth. The æsthetic element should never enter into the decision of such a vital question as the arrest of carcinoma, and whenever a breast is the seat of a malignant tumor, whether wholly or partially involved, there should be no hesitation about removing the entire glandular structure. If a part of the mammary gland only seems to be involved and it is evident the knife can be carried outside of the neoplasm into the apparently sound tissues of the breast, there is every reason to believe that if any portion of the gland is left it may become the seat of disease, and that recurrence will most likely follow the operation. On the other hand, an entire ablation offers better prospects of success.

The relative advantages of the knife and cauteries in the management of carcinoma depend very much upon the progress of the disease. In the incipiency of the local trouble there can be no doubt in regard to the excision being preferable to cauterization, but after full development of a tumor with a tendency to degeneration and breaking down of its structure the resort to escharotics has its advantages in extending to the remote ramifications of the disease. It is a prevalent impression that certain caustic applications attack diseased structure without affecting the sound tissues, and that the so-called roots of a cancer are thus destroyed. There seems to be some just foundation for this belief in regard to applications of arsenic, but the destructive effect of caustic potash in the form of Vienna paste extends to every vital structure with which it comes in contact, and the same holds in reference to the plaster of sulphuric acid and charcoal as an escharotic.

Dr. Gaston said the treatment of carcinomatous tumors of the breast with caustics has been tested fully by Bougard, of Belgium. His paste contains chloride of zinc, arsenic, cinnabar, and corrosive sublimate. Of one hundred and sixty cases, sixty-two, or nearly forty per cent., were free from recurrences three years after treatment.

The Diagnosis of Some Abdominal Tumors Supposed to be Ovarian, by DR. JAMES A. GOGGANS, of Alexander City, Ala. Dr. Goggans said the first requisite of the abdominal or pelvic surgeon is to acquire the ability to make a diagnosis. Text-books lead one to believe that this was quite an easy thing to do, but his experience had convinced him to the contrary. He then reported a few cases which had come under his observation which served to illustrate the fact that the diagnosis of many cases is often difficult, and in some cases quite impossible.

Does Gonorrhœa in the Female Invariably Prevent Conception?—DR. JOHN T. WILSON, of Sherman, Tex., read a paper on this subject. He said it has long been known that gonorrhœa in the female was sometimes attended with complications that proved troublesome and of serious import. Authors had for many years been describing endometritis, metritis, inflammations of the tubes, ovaries, and peritoneum produced by an ascending specific vaginitis, these structures being invaded by the poison, slowly creeping up through the cervix, involving first the mucous membranes in its tract and extending by continuity of structure to the deeper tissues. The more serious results, however, were not appreciated, nor so well understood until within recent years, when laparotomy became so common an operation, and the pathology of the more important sequelæ were studied from the specimens themselves. According to the experience of our best authorities it is so difficult to positively differentiate between gonorrhœal and severe simple vaginitis without a clear and authentic history, it being attended with the same symptoms and the properties of also infecting the male, that it is not altogether an easy task to say when ovarian, tubal, and uterine troubles, even with the presence of the Neisser gonococcus, have a specific origin, especially as simple vaginitis will sometimes produce them all. Dr. Wilson had observed quite a number of women who were the victims of gonorrhœal infection, many of them innocently so, having contracted it from their husbands, and believed it to be an ordinary leucorrhœa; many of those whose history he was enabled to follow afterward bore children for many years, were apparently healthy and gave no evidence of the usual complications.

Dr. Wilson then reported cases illustrative of some of these conditions and results. That gonorrhœa does frequently prevent conception is probably well established; but he does not think it is by any means the universal rule, clinical illustrations are too many to the contrary. If Nœggerath's statements are literally true, sterile women and fruitless marriages would be far more common, and the increase in the race would be greatly lessened, for there are a surprisingly large percentage of men, judging from his experience, who, if they confessed the truth, have suffered at some time in their lives with gonorrhœa.

Some Remarks on the Practical Treatment of Hepatic Abscess, by DR. JAMES E. THOMPSON, of Galveston, Tex. The author confined himself to a few practical remarks on the diagnosis and treatment of hepatic abscess and reported two interesting cases. He mentioned a few points on the treatment of the cavity after the contents had been successfully removed. It is often exceedingly

difficult to obtain free drainage even when large tubes are employed. In some cases even swabbing the walls of the cavity is ineffectual and these cases are practically hopeless, owing perhaps to inherent tissue weakness. The author tried curretting in one of his cases, and although he removed, as he thought, all necrotic tissue, still in a few days the cavity was as bad as before. Continuous irrigation often affords a means of efficient removal, but the tubes have an aggravating habit of becoming blocked, necessitating frequent changing and cleaning. Irrigation with a solution of sulphate of quinine—1 to 1000—was in one of his cases remarkably successful, and although the improvement may have been a coincidence and not a *post hoc ergo propter hoc*, he thinks that in cases of amœbic dysentery, at least, it deserves a fair trial.

Election of Officers.—The following officers were elected for the ensuing year: *President*, Dr. Cornelius Kollock, of Cheraw, S. C.; *First Vice-president*, Dr. A. B. Miles, of New Orleans, La.; *Second Vice-president*, Dr. J. B. S. Holmes, of Rome, Ga.; *Secretary*, Dr. W. E. B. Davis, of Birmingham, Ala.; *Treasurer*, Dr. H. P. Cochrane, of Franklin, Tenn.

After introducing and adopting resolutions of thanks, the association adjourned to meet in the city of Charleston, S. C., third Tuesday in November, 1894.

NEW YORK ACADEMY OF MEDICINE.

Anniversary Meeting, November 29, 1893.

D. B. St. John Roosa, M.D., President, in the Chair.

Before introducing the orator of the evening the President made some remarks to the audience, composed largely of the laity, upon the work which had been accomplished by the Academy in the public interest.

Modern Experimental Medicine.—Dr. William H. Thompson read the anniversary address. No physician who had lived long enough in the practice of his profession to compare the state of medicine as it was twenty-five years ago with the same at the present day could fail to recognize the fact that virtually a revolution had characterized the interval. This change was not simply from increase of knowledge, great as that had been, but more from a change of methods in the pursuit of knowledge, with the result of altering the whole domain of medicine to an extent which only the term revolution could fully express. It happened, however, that, as in other revolutions, many who lived in their epoch and who even took part in them, yet failed to appreciate at the time their full significance, and therefore remained long unaware of the essential difference which separated the new order of things from the old. With a view to illustrating the import of the new era which was now fully upon us, he would briefly refer to the chief methods of inquiry and investigation which had been pursued by the medical profession a quarter of a century ago and compare them with the experimental medicine of to-day.

First of all in the estimation of the profession at that time came clinical medicine, or the knowledge which could be gained of disease at the bedside of the sick. To be able to investigate disease to good purpose when face to face with it required no small preparation on the part of the physician. For that preparation anatomy was the first lesson, and no complaint could be made with this essential. But as soon as the microscope was discovered workers everywhere began to study the ultimate anatomy of the body with most fruitful results, thereby doubling the amount of knowledge which it had been necessary for one to acquire who wished to enter the profession of medicine. With this advance of knowledge in the structure of the body, it was to be expected that there would be like advances in other departments, as physiology, physiological chemistry, pathological anatomy, etc., and it had come to pass. Why were all these helps not sufficient to advance knowledge until every serious problem in medicine had been solved? The answer was that by none thus far mentioned could the vital question of etiology, or the causation of disease, be at all satisfactorily demonstrated. There was absent one great requisite in all scientific demonstration, namely, experiment. In no scientifically conducted investigation was observation alone sufficient. Observed facts never could be satisfactorily interpreted except by experimental tests. The insufficiency of clinical medicine and pathological anatomy to interpret disease was well shown by the history of pulmonary consumption. All was theory until Koch, by tests peculiar to work in the bacteriological laboratory, demonstrated its causation in tubercle bacilli. Erroneous interpretations springing from this field tended to correct themselves. Mistaken experiments, unlike mistaken doctrines, were always short-lived, and he commended this fact to all those who were disposed to dwell upon the contradictory reports in experimental investigation if certainty could never be thus reached. The experimental method did not get at its hid treasures by a lucky find, nor did the final test end with the work of a single investigator. No claim which was not based on truth could survive the ordeal to which it was subjected at the hands and methods of the many workers in laboratories. The history of the discovery of the tubercle bacillus also served as an illustration of what immense benefit to the human race was a knowledge of the causation of disease as revealed through experimental medicine. Tuberculosis had been the cause of one-fourth of all deaths, yet it was now known to be a preventable disease which could be greatly limited in extent by even the simplest of methods.

Dr. Thompson then pictured the enormous amount of work which was being done by the profession in the different departments of experimental medicine. There was the worker in the physiological laboratory, the worker in pathology, a department which Horsley with much warmth had insisted should be distinguished from that of morbid anatomy, and which had, during its recent cultivation, so greatly advanced our knowledge of myxœdema, and promised much more; then there was the worker in the bacteriological laboratory; also the worker in physiological chemistry, a most complex and difficult department, which, however, was especially essential to a knowledge of ultimate etiology. Brief reference was made to the practical additions to our knowledge growing out of experimental medicine in different parts of the world. The laboratories in the United States, which had been founded by private munificence, had been of recent date, but their reports had already come to be quoted by scientists abroad, and the work which they had accomplished had been original as well as corroborative, and also of great practical utility. England had long been behind the Continent in experimental medicine, owing to hostile legislation, but this had been so far remedied that she was no longer under the necessity of sending her students abroad to study in the laboratories of Berlin and elsewhere.

The public should be taught that all this work was being carried on in order that modern medicine might equip itself for contending against disease, and thereby for blessing the entire world. In view of this fact he could but refer with sorrow to the mistaken efforts of a few who sought hostile legislation against experimental medicine on the basis of cruelty to animals. One part of the animal world lived upon the other, and suffering and death were inseparable from existence. The question of whether inflicting pain constituted cruelty rested solely upon the objective purpose. Only unnecessary suffering was cruelty and should be condemned.

The medical profession was the only universal brotherhood. Think of lawyers, or legislators, or even ministers of the various religions, councilling with one another with the one common object of advancing the welfare of the whole of mankind.

Dr. Thompson thought that our government might well expend some of the money which it raised by taxation in aiding laboratories.

At the conclusion of the address the President invited those who were strangers at the Academy to inspect the library and various meeting-rooms.

SECTION ON OBSTETRICS AND GYNECOLOGY.

Stated Meeting, October 26, 1893.

H. J. BOLDT, M.D., CHAIRMAN.

Combined Cranioclast, Embryotome, and Cephalotribe.—DR. J. CLIFTON EDGAR presented the instrument, of French make, which he said had found much favor in Europe. He could not speak of its value from practical experience.

The Toxæmia of Pregnancy.—DR. EDWARD P. DAVIS, of Philadelphia, in presenting a paper on this subject said that he meant by toxæmia of pregnancy the condition occurring in the pregnant woman where toxic material was present in the body in excess. There could be no nutrition without waste, which was greater owing to the dual existence in pregnancy, and as the excretion of this waste material took place largely through the kidneys it was to these organs that attention had been chiefly and almost solely directed for some years. Increasing knowledge of pathology had shown that the kidneys were only partially at fault. The usual metabolic process explained a portion of the cases, while in some others the signs pointed to additional intoxication with bacterial products.

The paper dealt more especially with methods which they had found useful in the diagnosis of toxæmia, with treatment and with clinical cases. Details in methods of examining the urine were not mentioned, but the value of microscopical examination, it was stated, could scarcely be overestimated. The specific gravity and the amount of urea were important in judging of actual or threatened toxæmia. The presence or absence of albumin alone was not so significant. Where the urea had fallen below 1.5 per cent. they had found that stimulation of the patient's excretory organs caused improvement of those symptoms which pointed to milder degrees of toxæmia, supposing graver symptoms had not yet developed. The urea was not regarded as the poison itself, but as approximatively expressive of the solid constituents of the urine. In fifty-four cases the average per cent. of urea during the pregnant state had been found to be 1.8. It had been noticed that in the majority of cases the amount of urea had increased after delivery. On the other hand, marked diminution occurred only in cases either having or being threatened by eclampsia or manifesting symptoms of marked toxæmia.

Some of the symptoms of toxæmia which called for treatment were diminution of the solid constituents of the urine, reduced appetite, gastric distress, headache, clammy skin—in some instances a dry skin—lassitude, and nervous disturbance. They had not regarded the presence or absence of serous albumin alone as indicating toxæmia. In one-half the cases sugar was present at irregular intervals during the pregnant and puerperal state. The presence of glucose or lactose bore no direct relation, as far as they could determine, to the toxic condition of the patient. Of the fifty cases which formed the basis of the paper, fully one-third had, at some time during their residence in the Maternity, developed symptoms of toxæmia which required eliminative treatment. It was possible for a condition of marked toxæmia to be present in which examination of the urine failed to reveal either casts, albumin, or marked deficiency of urea.

The treatment was eliminative, through the kidneys, liver, intestines, skin, and lungs. Give milk and other food, if necessary, to keep up the strength; pure water, but not in excess, as it was possible to seriously embarrass the kidneys by a sudden increase of the fluid taken. He had no doubt of the advantage of the occasional use of calomel and soda, followed by a purgative to produce free and liquid stools; potassa salts were to be avoided. Colocynth was efficient in these cases. Wear woollen next the skin summer and winter; hot baths, hot sheets, gentle massage, including limbs and back, but avoiding the abdomen; fresh air; induce labor if necessary.

Toxæmia showed itself especially through disturbance of the nervous system, but relief was to be brought about in the manner indicated and not through sedatives. He was opposed to sedatives and narcotics if improvement could be brought about by elimination. Where an anæsthetic was required he preferred chloroform. Recent literature contained striking evidence in favor of terminating pregnancy by dilating the uterus and extracting the fœtus. The author thought it was a mistake to administer drugs which were depressants. Stimulants might be employed when indicated.

DR. W. T. LUSK thought that many of the symptoms described in the paper as belonging to the toxæmia of pregnancy also occurred in the non-pregnant state, and the eliminative treatment was of value in both classes of cases. But it was to be regretted that most cases which he had seen in pregnant women were those in which the kidneys were affected, convulsions threatened, calling for prompt measures. There was a time in New York when he had stood almost alone in favor of emptying the uterus, and he had been led to this step in opposition to common practice because without it he had been able to do little more than stand by and watch the patient die. He wished we had more positive evidence of what was the cause of the symptoms, for the theories which had been advanced had been abandoned one after the other with further knowledge of pathology.

DR. VON RAMDOHR referred to some questions in etiology and said that whatever the correct theory of the eclamptic attacks might be, clinical experience taught that they were more likely to occur in primipara, where the placental surface was extensive, as in twin pregnancies, and in certain conditions of nervous irritability. He thought that the quicker the woman was delivered the better; treatment by chloroform, blood-letting, etc., was of secondary consideration. Extraction of some blood, however, would seem of some value practically and theoretically, and was not an objection in Dührsen's incisions where the latter were called for to effect rapid delivery. He had seen very severe cases, which would account for his high mortality, about fifty per cent.

Recommends Accouchement Forcé.—DR. EGBERT H. GRANDIN thought the paper was a very valuable one, especially in that it called attention to symptoms of toxæmia during pregnancy, the gravity and real nature of which were apt to be overlooked. He mentioned one case of convulsions in which the woman died in coma after labor. The urine had contained no albumin, no casts; specific gravity was normal. He had seen a number of somewhat similar cases in hospital practice. He was glad to learn that rapid emptying of the uterus where the symptoms were severe or threatening was coming to be the practice in Philadelphia and New York, for when he had resuscitated accouchement forcé a few years ago, in certain urgent conditions, his views had met with considerable opposition.

DR. EDGAR said the fact that a woman might have eclampsia when the urine was seemingly normal, had been forcibly impressed upon him by two fatal cases seen last spring. Regarding treatment, he stood with those who favored immediate emptying of the uterus.

DR. ROBERT A. MURRAY thought that, whatever theory might be the correct one regarding eclampsia, there was some form of toxæmia, and treatment based on that view gave the best results. In cases with milder symptoms elimination should be tried, but he believed with Drs. Grandin and Edgar that it was useless to temporize with severe cases; that the uterus should be emptied at once. The convulsions might be controlled by chloroform during the emptying of the uterus, but he was opposed to using hydrate of chloral, believing that it had sometimes brought about a fatal result through its depressing effects upon the heart. He would dilate the cervix with the finger. The loss of some blood after labor was of benefit rather than harmful.

Dr. Mary Putnam-Jacobi thought the paper was in line with Bouchard's recent work on auto intoxication, the main features of which she outlined, and showed the harmony between them and the clinical facts of toxæmia or eclampsia in the pregnant woman.

Dr. E. A. Ayers thought many facts pointed to pressure interference with the pelvic circulation as the chief cause of actual or threatened convulsions during pregnancy, and treatment based on that view gave the best results. The patients were often primipara, the abdominal walls were tense, there was usually head presentation. He performed external version, caused the bowels to act, in one case kept the patient on her side. This treatment had caused œdema of the legs to disappear, cleared up albumin from the urine, and improved the patient's general symptoms. Nitro-glycerine had also been of value, and was not a depressant. A case was mentioned in which the one-hundredth of a grain every three hours caused marked reduction of the albumin and casts.

The After-history.—Dr. Van Santvord thought the after-history of these patients should be obtained, and it could be best done by the general practitioner. He referred to two cases in which the urinary symptoms showed a chronic nephritis after a year or two.

Dr. W. R. Pryor thought there was strong similarity between the cases occurring during pregnancy and others, especially those showing evidence of Bright's disease, and the treatment should be carried out with a view to restoring a balance between tissue waste and elimination. In addition, empty the uterus.

Dr. Davis closed the discussion.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

Semi-Annual Meeting, held at Annapolis, Md., November 22 and 23, 1893.

Dr. George H. Rohé, President, in the Chair.

First Day, Wednesday, November 22d.

Address of Welcome.—This was delivered by Dr. Abram Claude, of Annapolis.

President's Address.—This was delivered by Dr. George H. Rohé, who thanked Dr. Claude and the profession of Annapolis and of Anne Arundel County for the hospitable reception, and then referred to the great prosperity of the society and suggested some very important and practical changes which were afterward considered and acted on at the business meeting.

A Case of Laminectomy; Operation Eleven Months after Injury to the Spine.—This was a paper by Dr. W. B. Platt, of Baltimore. Hippocrates, who was such a voluminous writer, does not mention this operation. Paul of Ægina was the first writer to notice this operation nearly twelve hundred years ago. It was generally fatal in its early days because it was not done with antiseptic precautions. Henry Klein, in 1814, was probably the first surgeon to do this operation. The patient died and the surgeon was censured. Many others after him reported fatal cases. It makes a difference whether the operation is done at once, as soon as the accident has happened, or some time after the injury. Fractured laminæ are generally present with fractured spine. The laminæ become displaced and press on the cord. The operation should never be done to relieve the paralysis of Pott's disease until all other means have been tried and the patient is growing worse. Statistics show that over eighty per cent. of such cases recover without operation. In perfectly hopeless cases the operation is advised. His patient had first slipped on the stairs and two weeks later he fell from a car and one week after that he suddenly complained of extreme pain in the back and went to bed. There was found a curvature of the spine at the point of pain and below this there was complete paraplegia with loss of sensation. Bed-sores appeared, but there was no discharge of pus from any place except from the bed-sores. The operation had been done about two weeks ago, and two parallel incisions were made to the inner side of the transverse processes and were joined by a transverse incision. The hemorrhage was checked by pressure and the laminæ of the fifth, sixth, and seventh vertebræ were cut off. The flap was turned down for four inches and the dura was exposed; it looked healthy. The flap was replaced and no arteries were tied, and the operation lasted one hour and twenty minutes. There was copious venous hemorrhage. The patient is at present writing better, but still has skin anæsthesia; there is no improvement in motion. In such operations the improvement in sensation comes first. The patient can lie on either side without fatigue and no longer has night sweats as he had at first, although the most careful examination failed to show at any time any signs of tuberculosis of the lungs. Dr. Platt also showed a specimen from a cadaver to illustrate his paper.

Dr. R. Winslow had been considering for some time the propriety of doing this operation and he related several appropriate cases from his own practice. In one case there was complete paralysis below the eighth nerve and in another there was paralysis from the clavicles down and in neither case did an operation do any good and he does not put much belief in laminectomy.

Dr. George J. Preston in the last few years had seen several such cases and in some he had recommended an operation, with bad results. He does not know which cases should be operated on. If the cord is cut entirely across, an operation will do no good. The spinal cord in human beings will not unite to any extent as it does in dogs after section and as the nerves do. If an operation is to be done it should be done at once, for if we wait until secondary degeneration has set in it will do little good. The operation should be done a few days after shock, hemorrhage, and effusion have passed away; then operate as we do in other cases. There is not so much injury done by the pieces of bone as by the effusion and the tissue formation around the cord.

Dr. Platt in closing said that the prognosis of the injury and of the operation depended on what part of the spinal column was injured. In general, the nearer the head the less chance there was of success. We should always consider laminectomy as we do trephining of the skull; in fact laminectomy is nothing more than trephining and the mere operation is not dangerous, it is only the injury. If the body of the vertebræ is fractured we can expect little. Hippocrates gives good advice on this point.

Tumors of the Superior Maxilla.—This was the subject of a paper by Dr. J. H. Branham. He gave an extended account of treatment and showed specimens illustrating the subject.

Amputations.—This was the title of a paper by Dr. Randolph Winslow. He said that since the introduction of rapid transit in our large cities, surgery of all kinds had increased and particularly was there a greater necessity for amputations than before. He considered the condition of the blood supply to the injured parts the most important condition for a successful operation. He then related several cases and spoke of tetanus as one complication.

Dr. J. M. T. Finney said he would like to emphasize a remark of his late instructor in surgery at Harvard, who said that any fool could amputate a leg but it took a surgeon to save it. He thinks there are other methods than amputation, and Thiersch's skin grafting is one. There seems to be a tendency to save limbs entirely useless for a future amputation. This may be a good thing, because a stump made from a later amputation in which the parts are in good condition is a much better stump than one made at once. All these things must be taken into consideration. There is no question so important as whether we should amputate the limb or not. Another point Dr. Winslow had made was that of the time of operation. He had recommended waiting until reaction from shock had set in. The majority of cases are much better oper-

ated on at once unless the shock is very severe. Dr. Winslow referred also to the question of tetanus; it does occur in a certain number of cases, but the bacillus tetani in anaërobic and grows best where air does not have access to it. In a bullet wound or punctured wound from a toy pistol or rusty nail there is danger of tetanus because as most dirt earth so often contains this bacillus it is carried in with the object wounding and stays in the wound. This can be guarded against by laying such a wound open freely, the more freely the better.

Dr. Winslow was called away at this time and made no reply to these remarks.

A Study of the Effects of Tobacco on the Throat and Nose.—This was the subject of a paper by Dr. W. T. Cathell. He divided smokers into three classes, those that tobacco did not injure at all, those whom it injured to a slight degree, and those on whom it had a poisonous effect. The oil and nicotine were the poisonous principles. He condemned especially the short pipe and the stump. He thought that the pipe might be the exciting cause of cancer of the tongue and tobacco of polypi. He painted a very sad and painful picture of the results of using the weed.

Dr. C. Birnie, of Taneytown, Md., did not think that physicians could dwell too much on the harm which tobacco does to growing boys, but the rest of Dr. Cathell's indictment was entirely too severe, and for his part he did not believe that tobacco had ever caused cancer or polypi. A very common remedy among people in the country is tobacco. The wet tobacco leaves or a wet chew from a friendly mouth is put on a fresh wound and never removed until it heals, and recovery is perfect. He had seen this often and while he does not advocate it, the wound gets well, whether the tobacco does it or not. At any rate it does not prevent it from healing. It may be a case of post hoc. Chronic conditions of the throat and nose are just as common among the women as among the men, and few women in the country use tobacco as men do.

Dr. William H. Welch agreed with what Dr. Birnie said, and was glad to hear his remarks after the gloomy picture painted by Dr. Cathell. There is very little evidence to show that tobacco produces organic or malignant disease. The mechanical action of the pipe may cause an epitheliomatous papilloma but not a cancer. He was much interested in Dr. Birnie's remarks on the treatment of wounds by tobacco. It had been shown in his laboratory at the Hopkins that the action of tobacco smoke on bacteria as the smoke was drawn through the culture tube, was inhibitory. There had also been a physician in his laboratory who had always the diplococcus pneumoniæ in his mouth and from whom the other workers used to get it for cultures. The physician began to chew tobacco and no more cultures could be made from his mouth secretions.

Dr. Abram Claude said that he had been practising fifty-five years and had rarely been without a chew of tobacco in his mouth for most of that time; he is now seventy-four years old. He did not advocate its use in the young, but some it injures and others it does not, never mind how much they use it. His father had chewed it for many years, and his friend, Dr. Ridout, lived to the age of ninety a constant chewer. Dr. Cathell had brought forward no proofs of his statements of the injurious effects of tobacco, nor had he ever made any post mortem examinations of the fatal cases.

Dr. Cathell in closing said that the cases of Dr. Claude belonged to his first class who were not injured by tobacco. He had not said that smoking and chewing could cause cancer or polypi but that they might be the exciting causes of these troubles.

Some Facts and Suggestions Concerning the Care of the Insane in Maryland.—This was the subject of a paper by Dr. George J. Preston, in which he reviewed the history of what had been done in this State for the care and the treatment of the insane, and spoke of what the faculty had done in this connection. The State is in some sense obliged to take care of its insane and provide better accommodations for them than for the pauper class. The methods should be both scientific and humane. It would be more economical for the State to take intelligent care of its insane, for more of the favorable cases would be permanently cured and thus cease to be a burden on the State. The State should assume entire control of all public insane in her borders; the acute and chronic cases should be treated in separate institutions. Also there should be at some central point or in the large cities, as at Baltimore, a detention hospital or ward where those becoming suddenly insane, the cranks of all kinds, could be confined until their cases could be studied and a proper disposition of them made.

Dr. Henry M. Hurd said that the insane should have State care; county care is only an excuse to economize. If the State deprives a man of his liberty, the State should take care of him as well as possible. He does not believe in dividing acute and chronic cases. He does not believe that any man knows who is curable and who incurable. We should have a detention hospital for the temporary care of the insane and study these cases and know where they belong.

Drs. E. N. Brush, R. F. Cundry, S. J. Fort, and C. Birnie spoke of the manner of obtaining proper legislation on this point and its great importance.

Dr. William H. Welch said the paper read was a most excellent one. He thought whatever was done the insane should be used for medical education, and the general practitioner should know something of insanity. We should take no step that would throw the material away from Baltimore and keep it from being used in teaching. The provision should not exclude the possibility of using the insane for clinical material.

Dr. B. D. Evans, of Morris Plains, N. J., also spoke in the same general direction.

Advancement in the Care of the Insane in Maryland During the Past Eight Years; Insanity in the Colored Race.—This was a paper by Dr. William Lee, Secretary of the Maryland Lunacy Commission. As a result of these papers and discussions resolutions were passed and a committee of twenty-five was appointed to bring the matter in proper shape before the next legislature.

Dr. Thomas H. Brayshaw, of Glen Burnie, Md., read a paper entitled "Is Psychic Research a Benefit to Mankind?"

Psychical Epilepsy.—This was by Dr. S. J. Fort. In the discussion Dr. H. M. Hurd did not accept his nomenclature, nor did he agree with him as to his conclusions; it is an unfortunate name for those not having epilepsy.

Dr. E. N. Brush did not like the name moral imbecility. Children may be educated too much and rest may help them. We may educate our imbecile into a criminal as he gets older.

Second Day, Thursday, November 23d.

Artificial Vesico-vaginal Fistula for Examination and Treatment of Ureteral Diseases.—This was the subject of a paper by Dr. B. B. Browne.

Dr. H. A. Kelly remarked on the value of this paper, and said that where formerly he relied on touch and feel to explore the bladder and even catheterize the ureters, he had now taken up the plan of using the head mirror and throwing so much light into the bladder through the speculum that every part was as light as when we examined the pharynx, and he could see with distinctness the opening of the ureters. He showed a series of photographs demonstrating how easy it was to use the headlight for this object and how important it was for the general practitioner to get into the habit of using the newest methods of making examinations.

Sterility Due to Tubal and Ovarian Disease.—This was a paper by Dr. T. A. Ashby.

Dr. J. E. Michael was much pleased with the paper of Dr. Ashby and thought it emphasized the tendency of these times to save rather than destroy the organs of

woman. This will be of great service in increasing the population. The theory of the fimbriated extremity grasping the ovary during the ovulation was, he believed, an exploded one, although from the nature of things this was not certain. He thought that ovulation was rather by a current set up in the ciliated epithelium of the tube, and disease of the tube interfered with the ciliated epithelium and ovulation did not take place. Ovulation and menstruation were not synchronous, ovulation goes on before menstruation begins at all. Many pregnancies occur before the establishment of menstruation.

Dr. Charles P. Noble, of Philadelphia, said it was time to recognize that sterility depends more on the ovary and tube than on the vagina and uterus, and if the uterus were more often let alone it would be so much the better. Abdominal surgery is much safer than it was, and this is the secret of many operations; it is not that the operator is more anxious, but he can dare to do it. The combined work of Price, Dudley, and Martin had been put down at two pregnancies as the result of all their operations, and it was an open question whether these two pregnancies had anything to do with the operations. He had little faith that diseased tubes could ever amount to anything. We can save an ovary that is partly diseased. Some adhesions disappear of themselves and these may be of puerperal peritonitis. It was well to use palliative measures of treatment in these cases.

Dr. H. A. Kelly said that Dr. Ashby had struck the right key-note, or to be more classical "rem acu tetigisti." It is very important that the general practitioner should know how to approach a case of sterility. No man should pronounce a woman sterile until he had examined the husband. Examine the semen. Impermeability of the os uteri is often the cause of sterility and simple dilatation will effect a cure. In some cases he has found small tumors pressing on the tube and presenting an obstacle to the passage of the ovum.

Dr. Ashby, in closing, said that the question of the physiology of menstruation was a speculative one in the human being, but we can learn much from comparative anatomy. He does not believe in opening the abdomen by way of experiment.

Dr. H. A. Kelly reported thirty-nine cases of removal of the uterus, some by the vagina, some by the abdomen, with one death, which was not due to the operation but to septic catgut. The earlier work had been done by the clamp method, drawing out the tumor, putting on the clamp, and leaving it there until the wound had healed. Then there were the combined extra- and intraperitoneal methods. The abdomen was opened, tumor lifted out, vessels tied, stump cauterized to prevent sepsis, and then fastened to the lower angle of the wound. He thought that the unilobular tumors were more common in women who had borne children. He operated for good reasons only. His present method was first to make an incision, then put on ligatures to stop the hemorrhage as he went on. He had noticed that the tumor seemed to take the shape of the pelvic canal when it was situated there. There were only four large arterial trunks feeding the tumor and two were reached at once. The broad ligament was pulled aside by the fingers. He took great care not to get the contents of the uterus and cervix on the stump; cleaned out the abdomen, although it should never have a chance to be otherwise than clean; stopped venous oozing, cut off ligatures, and dropped the stump back into the abdomen, turning the pedicle upside down, so that the bladder is exposed to view.

Dr. Charles P. Noble, of Philadelphia, said that the subject of the operation on fibroid tumors was of great interest just now to gynecologists. Formerly it was thought that they were innocent things that were never cured and should be left alone, as it was supposed that they disappeared at the menopause or did no harm. This teaching is undergoing revision and it no longer holds. The menopause is often put off in such women to the fiftieth or fifty-fifth year, and it is very discouraging to tell a young woman that she must drag on for thirty years or more with no help and perhaps no improvement at the end of that time. Many do not cease to give trouble even at the menopause. The first five cases he had operated on were of this kind. These patients are great sufferers. He thought that a tumor that weighed five pounds could be called a large one; a two-pound tumor in the pelvis will fill it and he had never seen a fibroid that weighed more than eight pounds. In all the operations he had done where the stump was left in the angle of the wound hernia had resulted. The method of operating has been developed by many surgeons. He did not advocate using the ligatures in the cervix and thought it was unnecessary to put on ligatures in the vagina, and he does not think there is any use in cupping out the cervix. He did not think that we removed enough fibroids. Why should we leave a fibroid in to get big? It is safe surgery to remove it when it is small, and we should do it.

Dr. J. E. Michael thought that gynecological operations were like other surgical operations, and advanced and changed in the same way.

Dr. H. A. Kelly closed by saying that he had once been asked in court as an expert witness, what a large tumor was, and he replied that a tumor was large when it exerted pressure on the surrounding parts. A tumor that was large in the pelvis is not necessarily large in the abdomen.

Gynecological Operations Outside of Hospitals.—This was the title of a paper by Dr. Hunter Robb.

Dr. W. S. Gardner also thought that operations could be done outside of hospitals as well as in, if care were taken. In cases where there is a large collection of pus and where much irrigation is needed, it is not advisable to operate at home. He does not believe that wounds become infected from the atmosphere. He does not think it is necessary to take the sterilizer to the house, as sterilization can be done at home before starting, and if the instruments, sponges, etc., be kept in the cotton in which they were sterilized, they will keep clean. It is just as well to have plenty of sterilized water but it is rarely well to use it.

Dr. J. Fridenwald read a paper entitled "Atony of the Stomach."

Subcutaneous Infusion of a Nutritive Salt Solution in Cases of Refusal or Inability to Take Food.—This was the subject of a paper by Dr. Milton D. Norris, and was the result of his experience in feeding cases at Spring Grove Asylum.

The paper was discussed by Drs. Brush, Evans, Gundry, Branham, Rohé, and Fulton.

Water Supply, Isolation, and Disinfection in Country Districts.—This was the paper by Dr. C. Birnie, of Taneytown, Md., in which he showed the carelessness of country people in respect to their drinking water and disposal of their sewage and the filthy way they arranged their water closets.

Dr. George H. Rohé said if he dared to make a comparison he would say that this was the best paper of the session.

Dr. Canfield said he thought the paper was especially to be commended for the practical and simple nature of the suggestions made; he thought this was the age of preventive medicine and we needed just such papers as this.

The paper was further discussed by Drs. Hines, Evans, and Brush.

"Hemorrhagic Septicæmia" was the subject of a paper by Dr. W. T. Howard, Jr. It was discussed by Dr. J. Friedenwald.

An apparatus for the estimation of urea was exhibited by Dr. John S. Fulton, of Saulsbury, Md., and was discussed by Drs. J. Friedenwald, Canfield, and Fulton.

"Obstruction of the Bowel" was by Dr. Edward Anderson, of Rockville, Md.

Gleanings from Country Practice was a paper by Dr. Frederick J. Dunning, of Easton, Md., and contained a report of a case of supposed yellow fever and

his first abdominal section. It was discussed by Drs. Canfield, J. Friedenwald, and Fulton.

At a business meeting of the Society Dr. William H. Welch brought up the report of the National Quarantine Committee of the New York Academy of Medicine on a Bill to Establish a Bureau of Public Health within the Treasury Department of the United States, and offered a resolution, which was unanimously carried, to appoint a committee of nine to further the passage of this bill. This bill is very important and has been prepared with great care and with due regard to the National Government and States' rights. The object of the committee is to further the passage of the bill and to co-operate with the committee of the New York Academy of Medicine.

THE NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 11, 1893.

T. Mitchell Prudden, M.D., in the Chair.

Report of the Microscopical Committee.—The Microscopical Committee reported that an examination of the specimen of bone from a knee-joint, presented by Dr. T. H. Manley, on May 24, 1893, failed to show any evidence of tubercular inflammation, but demonstrated the presence of a periostitis and a slightly marked osteitis, whose etiology could not be determined.

Malposition of the Fallopian Tubes.—Dr. George P. Biggs presented two Fallopian tubes which had been found situated behind the uterus, and firmly united by their fimbriated extremities. There was a free communication between the tubes. The specimen was removed from a woman, twenty-nine years of age, who stated that shortly after a miscarriage, six years before, she began to suffer almost constant pain in the left iliac fossa, and also from dysmenorrhœa and menorrhagia. Six months before coming under observation she is said to have had an attack of pelvic peritonitis. When she was admitted to the New York Hospital she complained of constant pain in the pelvis, and an examination showed a hard mass behind and on each side of the uterus. The tubes were removed by operation, the ovaries being left behind. Each tube was 2 to 2½ ctm. in diameter, and their walls about seven mm. in thickness. Microscopical examination showed the lesions of an ordinary chronic salpingitis.

A Calculus in the Substance of the Kidney.—Dr. Biggs then exhibited a calculus which had been found in the substance of a kidney. Its presence was not discovered at the autopsy, but the calculus was found in the fragment of the kidney which had been removed for microscopical examination. The subject was a man, fifty-eight years of age, who died of acute miliary tuberculosis. He had a history of acute articular rheumatism, but denied all knowledge of any acute nephritic trouble, although an examination of the urine before death showed the presence of albumin and casts. The only other lesions found besides those of tuberculosis were the lesions of chronic diffuse nephritis, and a few small cysts. The calculus was round, and completely filled a small cyst in which it was found. It was situated midway between the hilum and the convex border.

An Accessory Spleen in the Tail of the Pancreas.—Dr. Biggs also presented a small spleen which had been found buried in the tail of the pancreas. Microscopical examination of this mass, as well as of another near by, and also distinct from the spleen, showed typical splenic tissue.

Diffuse Sarcoma of the Mucous Membrane of the Uterus.—Dr. Warren Coleman presented a specimen of diffuse sarcoma of the mucous membrane. About one year ago he received from Dr. James H. McIntosh, of Newberry, S. C., a portion of a growth removed from the uterus by curetting. On receiving word that the growth was a sarcoma, it was decided to perform vaginal hysterectomy, and after the operation the uterus was put in alcohol and forwarded to him. On making a vertical section the cavity was found almost entirely filled with a soft, succulent mass of a light pink color, closely adherent to, but not invading, the uterine wall. The external os was patulous, measuring 2.5 ctm. in its lateral, and 1.2 ctm. in its antero-posterior diameter. The Fallopian tubes were not enlarged, and on gross examination appeared to be normal. A microscopical examination was made of the neoplasm, the cervix, the vagina, the wall of the uterine body, the fundus, and the Fallopian tubes.

The tumor was found to be composed chiefly of large round cells, with a slight admixture of spindle cells, and with giant-cells scattered throughout the mass. The cells were packed closely, and held together with a small amount of cement substance. No stroma could be demonstrated. The vascular supply was so plentiful as to suggest in places an angio sarcoma. The cervix was normal except for moderate senile changes, and the vagina likewise appeared healthy. The wall of the body of the uterus showed an absence of the mucous membrane, and the sarcoma had extended down to the muscle, but ended abruptly here. At the line of junction an occasional giant-cell could be seen, and also a slight round-cell infiltration of the muscular tissue. At the fundus the new growth dipped down into the substance of the wall, but did not actually invade it. Numerous thin-walled blood-vessels passed from the uterus into the tumor. In the Fallopian tubes the sarcomatous tissue was found creeping along under the mucous membrane and dislodging it, and considering the comparatively small extent of the process in the uterus itself it was surprising to what a distance it reached in the tubes—8 to 12 mm. In several of the reported cases the disease had extended through the tubes in the form of a plug, which in one case projected from the fimbriated extremity. In the present case a small vessel in the wall of one of the tubes contained a thrombus composed of sarcomatous elements.

The patient from whom this uterus was removed was sixty-seven years of age, and was attended by Dr. B. W. Taylor, of Columbia, S. C. She had had seven children. The menopause came on at the age of fifty-five, and was accompanied by no unpleasant symptoms. About a year and a half before the time of the operation a blood discharge from the uterus was first noticed. She was curetted twice, with temporary benefit. Shortly after the operation she began to suffer from abdominal pain, and two weeks before her death the bloody discharge returned. On January 26, 1893, she became paralyzed on the left side, and passed into a coma which ended in death three days later. No autopsy was obtained, but an examination before death revealed a tumor occupying the right iliac region, measuring 10 × 5 ctm., and another below the umbilicus, measuring 7 × 15 ctm. The vaginal roof was filled with a soft growth which broke down and bled freely on manipulation.

According to M. Terrillon uterine sarcomata may be divided pathologically into three varieties, viz.: 1, Sarcoma of the mucous membrane; 2, interstitial sarcoma; and 3, cystic sarcoma. The interstitial occurs in two forms, a circumscribed form which is often pedunculated, and another variety characterized by an enormous hypertrophy of the uterus. In the cystic form the cysts have thick walls and contain a bloody liquid.[1]

The speaker said that it is often stated that sarcoma of the uterus is a rare disease, but on looking up the literature of the subject he found that as early as 1870, Gussenow had collected 62 cases, and in 1874 A. R. Simpson added 4 to this list. He had himself found 45 cases which had been reported during the last five years after microscopical examination had established the diagnosis of sarcoma, and also a good many other cases reported under various names, but with a history which clearly showed that they should have been classed as the interstitial or cystic sarcomata of Terrillon. When we take into account also the "recurrent fibroids" and "fibro-

[1] See Gazette des Hôp., lxiii. 1269, Paris.

plastic tumors" of the earlier writers, and the "fasciculated cancers" of Rokitansky, the number of sarcomata of the uterus will be materially increased. Thomas says that many cases have been regarded as cancer, and not a few of the supposed fatal fibroid or polypus have been unquestionably of this affection.

Dr. Coleman then exhibited a microscopical specimen of the growth.

Aneurism of the Thoracic Aorta.—Dr. E. Hodenpyl presented for Dr. Huntington specimens taken from a dissecting room subject. They represented a fusiform aneurism of the aorta just at its junction with the heart, and an aneurism of the thoracic aorta, which he understood had ruptured into the thoracic cavity, and had also passed through the diaphragm into the abdomen. The cause of death was unknown, but as there was a fracture of the skull it is quite probable that he met a violent death.

Dr. George P. Biggs remarked that there might have been an opening formed in the diaphragm as a result of post-mortem digestion. He had recently seen a case in which an opening about three inches in diameter was made in this way.

Intestinal Obstruction from Twisting of the Bowel.—Dr. Hodenpyl then presented a specimen, removed at autopsy, from a man who had had symptoms of intestinal obstruction. The patient was a laborer, who while overheated drank a large quantity of ice water. He was immediately seized with abdominal pain and vomiting. After remaining at home in this condition for two days he was admitted to the hospital. On admission there was severe abdominal pain and vomiting, moderate temperature, and an exceedingly feeble pulse. A diagnosis was made of intestinal obstruction, but his condition was such that it was not deemed advisable to operate. He died four days later. At the autopsy all the organs except the intestines were normal. The appendix was found bound down behind the cæcum, and there was evidence of a small perforation. The principal lesion consisted in a twist of the small intestine about two feet above the ileo-cæcal valve. The intestine for some distance above this point was congested and very much distended with fluid fæces.

The Society then went into executive session.

Female Medical Practitioners in Russia.—An article has recently appeared in the *Siéverny Viestnik* upon the position of the woman doctor in Russia. The author of the article, Dr. Herzenstein, brings forward evidence to show that her position is improving every year, and that the demand for her services, particularly in the treatment of women and children, is constantly increasing. The number of women doctors in Russia has been reckoned at about seven hundred. The article advances statistics of 409 of these. Many of them occupy responsible positions in the service of the zemstvos, 21.27 per cent.; municipal bodies, 3.18 per cent.; in hospitals and workhouses, 14.42 per cent.; in educational establishments, 4.16 per cent.; in government institutions, 0.73 per cent.; and in factories and works of various sorts. Individual incomes from such sources vary from small sums up to 2,000 roubles (about £200 per annum), 8 receive less than 200 roubles, 43 receive from 200 to 500 roubles, 96 from 500 to 1,000 roubles, and 47 from 1,000 to 2,000 roubles, while 1 receives more than the last named sum. Incomes from private practice vary from 100 roubles to (in one case only) as much as 18,000 roubles per annum, the average income of a Russian woman doctor being less than 3,000 roubles. The large majority (280 out of 409) of women practising medicine in Russia are natives of the country; 98 out of 409 are Jewesses, and the remainder is made up of 8 Poles, 6 Germans, 3 Lithuanians, 1 Armenian, and 13 women of unknown nationality.—*The Lancet.*

Chloride of Gold and Sodium in diabetes mellitus, $\frac{1}{20}$ grain three times daily.—Robinson.

Therapeutic Hints.

Irritable Heart.—

℞. Chloralamid..... ʒ iv.
Tinct. belladonnæ..... ʒ ij.
Elixir simplic.....q. s. ad ʒ iv.

M. Sig.: Teaspoonful three times daily, between meals and at bedtime.

—Egbert.

Typhoid and the Brand Bath.—Although I first adopted the method on account of the statistics, I have continued it on account of the good effects which I have personally observed upon the condition of the patients, which no article of the materia medica is able to bring about. It is supporting and refreshing *only*, and not at all depressing.—Sihler.

Cactus Grandiflorus, in tincture made by macerating four ounces of fresh stems in a pint of strong alcohol for a month, has been found useful in functional heart disorders, relieving palpitation and nervousness. It seems to act chiefly on the accelerators and sympathetic ganglia, shortening diastole and stimulating the special vaso-motor system.—Watson.

Resorcin, combined with cocaine, is said to do away with the unpleasant effects of strong solutions of the latter.

Morphine is useful in some mitral affections, calming dyspnœa and nervous symptoms, producing diuresis and diminishing anasarca.—Hervouet.

Keratitis is pre-eminently a disease of the poor, the ignorant, and the careless. He who does much to tone up the average general health of the community will do something to prevent keratitis.—Roosa.

Diarrhœa Incident upon Teething.—

℞. Acidi sulphurici dil..... gtt. xij.
Morphinæ sulph..... gr. ½.
Spir. vini gallici,
Syr. zingib. .....āā ʒ ss.
Aquæ.....q. s. ad ʒ iij.

M. Sig.: ʒ j. every three hours.

—Meigs.

Give me quinine, opium, calomel, and jalap, and you can throw all the rest of the materia medica out of the window.—Gross.

Nervous Otitis.—Seek for dental caries, ulceration of mouth and larynx. Iodide of potassium, quinine, salicylate of soda, antipyrin, phenacetin, have given some good results. The negative electric pole should be tried.—Gompers.

Hemorrhoids.—

℞. Cocaine..... gram. 1.20
Morphine ..... centig. 30
Atropine ..... " 20
Tannin ..... gram. 1.20
Vaseline ..... " 30.00

Apply after each passage.

Chronic Congestion of the Larynx.—

℞. Creosote ..... gram 15
Carbonate of magnesia..... " 6
Distilled water ..... " 90

Teaspoonful in a pint of boiling water as inhalation.

Dry Rhinitis.—

℞. Oil of eucalyptus ..... gtt. xx. to ʒ j.
Vaseline or lanoline ..... ʒ j.

Apply to mucous membrane.

—Browne.

Goddard's Gargle.—

℞. Aluminis..... ʒ ij.
Cort. granati ..... ʒ ss.
Petal rosæ rub..... ʒ j.
Mellis ..... ʒ j.
M. Aquæ Bull..... ℥ vj.

The mixture can be used without dilution, or with an equal quantity of water.

Traumatic Tetanus.—Chloral, seven grains every hour, and four drops of freshly prepared fluid extract of calabar bean every two hours, in a boy of ten years, was followed by recovery after five weeks.—Radcliffe.

Diphtheria.—Continuous inhalation of the vapor from a mixture of eucalyptus oil, carbolic acid, and turpentine.—Smith.

Œdema of Glottis.—Three injections of pilocarpine at intervals of twenty minutes, amounting to $\frac{1}{2\frac{1}{2}}$ grain total, removed all dangerous symptoms within fifteen minutes of last injection.—Mendoza.

Eucalyptol in chronic bronchitis, chronic interstitial pneumonia, persistent cough, gives good results in five to ten minim doses in emulsion every four hours.—Brainerd.

Tuberculosis of Larynx.—

℞.	Tannin (pur.)	gram.	3
	Ac. carbol. cryst	"	1
	Aq. dest	"	300
	Glycerine	"	10

Use as spray.

Gastritis, dyspepsia, cancer of stomach, sea-sickness, vomiting of pregnancy.—

℞.	Hydrochloric acid	gram.	2
	Resorcin bisublim	"	2
	Syrup of oranges	"	20
	Water	"	178

A large spoonful every two hours; or,

℞.	Condurango decoction	gram.	180
	Rhubarb tincture	"	5
	Resorcin bisublimate	"	2
	Syrup of oranges	"	20

℥ ss. every two hours.

—Menche.

Microcidine.—Beta-naphthol and caustic soda fused together. Cheap, non-toxic, powerful antiseptic.

—Berlioz.

Atropine in small hypodermic dose is superior to all other remedies as a hæmostatic.—Bierwierth.

Chorea.—Fowler's solution till physiological effects. Fluid extract cimicifugæ in half-drachm doses. Hyoscyamine $\frac{1}{100}$ grain. Bromide of zinc.—Scurr.

Acute Rheumatism.—Cold applications to the joints afford almost immediate relief. It is best done by wringing out heavy towels in cold or ice water, wrapping about joints, and covering with flannel. These are renewed, and treatment kept up till cure is effected.

—Fraunfelter.

Treatment of Comedones.—Dr. H. von Hebra prescribes the two following solutions in the treatment of blackheads:

1. ℞. Rose-water,
Alcohol,
Glycerine āā ℥ ijss. (gms. 10).
Borax ℥ j½ (gms. 5).

Shake before using.

2. ℞. Green soap ℥ j½ (gms. 40).
Spir. lavender ℥ ijss. (gms. 80).
Alcohol ℥ ijss. (gms. 80).

Every morning wash the skin with No. 1, and then rub in No. 2. Then wash off with warm water.

Eczema of the Scrotum.—

℞.	Iodoformi	ʒ iij.
	Zinci oxidi	℥ jss.
	Spirit. camphoræ	ʒ iij.
	Aquæ calcis,	
	Olei lini āā	℥ jss.

M. Sig.:—Apply locally at night, and have patient wear suspensory bandage.

—Campbell.

Some Maladies hitherto ascribed to vague and unknown causes of internal origin are really traceable to infection, usually from without. This was illustrated by the cases of—(*a*) erysipelas, (*b*) impetigo, and (*c*) boils and carbuncles. All forms of impetigo are contagious; hence the term "impetigo contagiosa" does not represent a distinct disease.—Smith.

Erythema Nodosum treated with antipyrin (3 to 4 grammes daily for an adult) runs its course in eight to fourteen days.—Crentz.

Exfoliative Dermatitis, as well as other skin diseases, often show good effects from tartar emetic ($\frac{1}{8}$ grain three to five times daily).—Jamieson.

Lupus, Impetigo Contagiosa, and Pemphigus.—

℞.	Thumenol	gram.	2.5–5
	Flor. zinc,		
	Bismuth subnitrate āā	"	2.5
	Ung. lenit.,		
	Ung. simpl āā	"	25

—Neisser.

Impetigo of the Scalp.—Essence of turpentine applied twice daily and rubbed in with finger-tips. After five minutes wash with carbolic soap.—Serbs.

Oozing Eczema of hairy parts, particularly of the head, is soon reduced to dryness by a ten per cent. salicylic ointment.—Veiel.

Genital Herpes.—

℞.	Tannic acid	gram.	5
	Subnitrate of bismuth	"	1
	Powdered starch	"	100

Apply after washing with carbolic solution.

—Besnier.

Hyperidrosis Pedum.—

℞.	Naphthol	5 parts.
	Glycerine	10 "
	Alcohol	100 "

Apply locally twice a day, after which a powder composed of two parts of naphthol and 180 of starch is placed between the toes.

—Brocq.

Favus.—

℞.	Hydrarg. corrosiv	centigram.	12
	Alcohol, q. s.,		
	Petrolei,		
	Ol. olivar āā	gram.	15
℞.	Alcohol absolut	gram.	30
	Iod. pur., q. s. to obtain a saturated solution.		

For external use sponge and rub the favus spots and the adjacent surrounding skin, one day with the first solution, and the next with the iodine solution. Continue until a slight irritation of the skin supervenes, then interrupt the treatment a few days and apply an indifferent salve, when the treatment may be recommenced.

—Kerley.

Scrofuloderma and Lupus.—

℞.	Zinci oxidi,	
	Amyli pulv āā	½ oz.
	Vaselini albi	½ oz.
	Hyd. oleatis, 5 per cent.	1 oz.
	Acidi salicylici	gr. xx.
	Ichthyolis.	♏ xx.
	Ol. lavendulæ	q. suff.

M. Fiat ung. coloratum.

—Brooke.

Scabies.—

℞.	Creoline	5 parts.
	Vaseline	100 "

Mix. Use with friction, once every day, over the parts affected.

—Lollis.

Psoriasis.—

℞.	Ethylate of sodium	gram.	20
	Olive oil	"	80

Frictions.

—Gamberini.

Ulcers, Itch, Psoriasis, Eczema, Pruritus.—

℞.	Resorcinol (resorcin and iodoform compound)	gram.	5
	Venetian talc	"	20

Use as powder.

Biëlajew.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

FUNERAL OF SIR ANDREW CLARK—PRESIDENCY OF THE ROYAL COLLEGE OF PHYSICIANS—ROYAL MEDICAL AND CHIRURGICAL SOCIETY—MEDICAL SOCIETY OF LONDON—STRANGULATION OF TESTICLE—NEPHRECTOMY IN HYDRONEPHROSIS—PREVALENCE OF INFECTIOUS DISEASES.

London, November 18, 1893.

Sir Andrew Clark has been buried a week to-day. During that period his life, work, and death have been the chief topics of conversation wherever medical men met. The service in Westminster Abbey was most imposing. To his immediate friends and relatives, with all its sad solemnity, it could not but be some source of consolation that such a crowded assembly, composed largely of his professional brethren, should have been gathered together in the great abbey to bid farewell to the honored dead. A great multitude thronging the old cathedral and extending along the route of the procession, was a testimony to the esteem in which he was held, and an honor almost unique for a physician to attain to. The scene in the little churchyard near the deceased's country-house, though shorn of the pomp of the abbey service, was none the less affecting. With a simple service the body was committed to the grave, in the presence of the many friends and colleagues who had followed to take their part in the last offices of respect for the esteemed and beloved dead. R. I. P.

It was not in human nature to refrain from speculation as to the presidency of the College of Physicians. It will be a difficult thing to succeed Sir Andrew Clark. The college, indeed, numbers in its ranks many who, for some reason or other, are worthy of its highest honor, and capable of discharging all the duties of the position. Consequently many names have been discussed and their several qualifications canvassed. Among these, perhaps, Dr. Russell Reynolds may be thought to combine most of the qualities to be desired. An election of this kind is, however, often most uncertain.

On Tuesday, the 14th inst., the chair was taken at the Royal Medical and Chirurgical Society by Dr. Church. At the previous meeting, as I have reported, the session was opened by a vote of sympathy with the family of Sir Andrew Clark, their president, on his serious illness. At this, the succeeding meeting, the first business was a resolution expressing the sense of irreparable loss sustained by the society, and sympathy with Lady Clark and the family in their bereavement. Dr. Church paid a touching tribute to the memory of the late president, and related the course taken by the council under the sad circumstances; for no president has previously died in office, although the society has been established more than eighty years. Consequently there was no precedent for the officers. Their action was quite approved.

On Monday last (13th inst.) the President, Dr. Bristowe, opened the meeting with a few touching remarks on the loss sustained by the death of Sir Andrew Clark, after which Mr. Owen related a case of strangulation of the testicle by axial rotation of the cord, and urged the propriety of removing the organ in these cases.

Mr. Bland Sutton then read a paper on the indications for nephrectomy in hydronephrosis. Observing that hydronephrosis is mostly due to obstruction, he insisted that this must be incomplete or temporary, or otherwise rapid atrophy would ensue rather than dilatation. As a rule, he said, it ran a latent course. When unilateral the diagnosis might be difficult, but when bilateral the intermissions might alternate. In the latter case the only symptoms might be frequent micturition until the kidney substance was reduced below the physiological needs, whereupon uræmia suddenly appeared. Though hydronephrosis remained unperceived until very large, should suppuration occur symptoms immediately called attention to it. It is necessary to distinguish this condition from primary pyonephrosis, which is seldom large and is mostly associated with calculus, calling for nephrotomy rather than nephrectomy. As to hydronephosis suppurating, Mr. Sutton remarked that when very large it often came into close contact with the colon, the walls being so thin that osmosis could take place. He objected to aspiration for diagnosis, as it exposed the patient to danger and was often misleading.

Mr. Alban Doran advocated delay of operation when associated with floating kidney, and related a case in which the condition subsided of itself. He could not admit that real atrophy necessarily occurred, as he had specimens showing the kidney substance normal.

Mr. H. Morris observed that the original cause of obstruction was not always found, as it might disappear during or after the forming of the hydronephrosis; he pointed out, too, obstruction of the ureter low down did not necessarily cause dilatation right up to the kidney, as a pouch was sometimes formed and might press on the tube higher up, as an aneurism might do. He recognized a thin-walled variety which collapsed on tapping, and a second kind in which there was hypertrophy of the kidney substance, so that when the calices were laid open they were seen to be thick-walled and separated by fibrous septa; and this was specially likely to occur when one kidney atrophied or was removed while its fellow was undergoing dilatation. He thought that such organs should sometimes be dealt with as if they were solid tumors.

Cholera has left us, but small-pox and scarlet fever still prevail. The former has lately spread a good deal in different parts of England. The difficulty of providing hospitals for infectious diseases continues and has been mentioned in Parliament.

Diphtheria has extended. A serious epidemic has occurred in Essex, and another outbreak is reported at Oxted, in Surrey.

Influenza is again appearing; at Birmingham and Blackburn it is very rife, although it is said the type is not severe. Here in London many mild cases are met with, but the prostration which succeeds the attack is often very great.

A RESPONSE FROM DEMILT DISPENSARY.

To the Editor of the Medical Record.

Sir: In your editorial of November 25th on "Doctors and Dispensary Boards" you question the truth of my statement that dispensaries managed in whole or in part by medical men are the worst in the city. I might easily offer proof of my assertion; but to specify instances would be unwise and would not settle the question. I am convinced that should a fair-minded committee of medical men investigate the management and work of all the dispensaries, they would reach the conclusion that a managing board of laymen in close touch with the faculty is the most efficient in carrying out the design of such institutions. This policy was adopted in the organization of the Demilt Dispensary, forty years ago, at the suggestion of a father in dispensary and hospital management. We have found the advice so sound and its results so satisfactory to our medical staff that we commend it to other institutions. I know well that "there are plenty of physicians who possess both professional knowledge and business capacity." This fact does not have any bearing upon my assertion, which was that the best management is an exclusively lay board, and the worst a mixed lay and medical board. In passing, let me point out one advantage of the lay system; the fact that under it appointments are uninfluenced by questions of medical politics or medical-school prejudice; the appointing officials are not subjected to the pressure brought to bear upon doctors acting in such a capacity. Surely no more convincing proof can be asked of the esteem in which the lay board of the Demilt is held than the list of eminent physicians

who have served it in the past, and the professional standing of those on its staff to-day.

The managers have failed to discover that "the Demilt Dispensary, which used to stand in good repute among the profession has lost much, if not all, of its prestige through the narrowness of its managers." Mr. Editor, "we trust that you have facts to sustain this remarkable statement." We regret that the proofs should have been withheld. We, at least, have never been aware of the existence of any of the "friction" apparently common elsewhere. I doubt whether two sets of men have ever worked together more harmoniously than have our managers and physicians. Occasional disagreements have arisen, as they will in any live organization; but, considering the number of years since its incorporation, and the large number of changes among the managers and doctors during that time, the differences have been very few indeed. No request of our physicians has ever failed to receive careful consideration and favorable reply when the latter was possible. We flattered ourselves that we stood pre-eminent in this respect. Such has been the testimony of many physicians. When we have been obliged to refuse we have given good and equitable reasons for so doing.

As a matter of fact the number of patients treated at the Demilt has increased twenty-five per cent. in the period in which you state that there has been no increase. Granting that your assertion is correct, we do not think that the increase of patients should be the test of its usefulness or even a source of satisfaction to a dispensary. When the Demilt was opened, in 1851, there was no medical charitable institution above Fourteenth Street. There are now eight in the district we cover. We only regret that our numbers have not diminished. In this respect I most heartily agree with the opinion so often expressed by you in times past, for I do not look upon the increase in attendance as a sign of merit. On the contrary, it should arouse anxiety lest it results from some abuse of our charity. Any such we wish to correct.

CHARLES C. SAVAGE.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending December 2, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	17	14
Scarlet fever	80	3
Cerebro-spinal meningitis	4	7
Measles	212	18
Diphtheria	182	64
Small-pox	5	3
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

Report of the Committee on "The Practice of Obstetrics by Midwives."—In presenting a proposed amendment to the medical laws of the State of New York, involving the practice of obstetrics by midwives, the committee appointed by the Medical Society of the County of New York desires to call the Society's attention to the following facts: 1. There is at present no law in the State of New York for the regulation of midwives in the practice of obstetrics. Any person can so practise after registering and paying a fee of fifty cents. 2. The number of persons at present acting as midwives in the city of New York is thought to be over three thousand. 3. The number of births reported annually by midwives is within a few hundred of the number reported by physicians. That number is about twenty-five thousand. 4. In the matter of still-births, the per cent. here is nearly three times greater than with the midwives in Berlin where the practice is regulated. 5. There is good reason for the belief that criminal abortion is frequently practised by some of the midwives of this and other cities of this State.

In considering means for improving the anomalous situation at present existing in this State, namely, that physicians who devote years of study in preparation for obstetric and other work are not allowed to practise until stringent requirements have been met according to law, while the most ignorant, by classing themselves as "midwives," can without question care for women passing through that perilous "physiological process," childbearing, the committee has considered the following questions: 1. Should the practice of obstetrics by midwives be done away with altogether? 2. If so, could it be prevented? If allowed, should means for the education of midwives be established? 4. How much preliminary qualification should be required? 5. Would not limited requirements, a reasonable registration and fee, and strict limitation of their obstetric privileges, by which a large per cent. of cases would be thrown into the hands of physicians, prove most feasible?

Without going too minutely into the details of the views and arguments expressed, it was the unanimous opinion of the committee that, on the one hand, the trend of obstetrical practice is and should be toward a scientific level beyond the possible attainment of midwives, and that the latter are an importation which should not be cultivated as a branch of our profession; but that, on the other hand, it would not be feasible to undertake their complete removal. Stringent requirements as regards antisepsis, and close limitation of the midwife's practice to the most normal conditions, requiring that a physician be summoned for all abnormal conditions, and the restriction of her license in not permitting her to make returns of still-birth or treat puerperal diseases—these, it was thought would bring about the best results. Similar methods have been put to the test in other States, New Jersey, Illinois, Minnesota, and in Erie County, this State, with most marked improvement. The number of midwives practising has been reduced, the per cent. of still-births lessened, the development of fevers greatly reduced, and criminal malpractice brought nearer the eye of the law. Your committee unanimously proposes the following as in its opinion a much needed amendment to the present medical laws of the State of New York:

An Act to Regulate the Practice of Midwifery in the State of New York.

1. Be it enacted by the Senate and Assembly of the State of New York, That every person practising midwifery in any of its branches shall possess a certificate from the State Board of Medical Examiners as hereinafter provided.

2. And be it enacted, That every person now practising midwifery in the incorporated cities of this State shall, within thirty days after the passing of this act, personally present to the State Board of Medical Examiners an affidavit setting forth the name, nationality, age, authority, location, and length of practice, together with a certificate of good moral character from some registered physician, resident of the same district; whereupon the Board, on receipt of a fee of one dollar, shall issue a certificate, signed by its President and Secretary, and bearing the seal of said Board, entitling the person named therein to practise midwifery in this State.

3. And be it enacted, That every person hereafter beginning the practice of midwifery in this State shall appear before the State Board of Medical Examiners and submit to such examinations in midwifery as the Board shall require, and if such examination is satisfactory to the examiners, the said Board shall, upon the receipt of a fee of five dollars, issue a certificate the same as provided in section two of this act.

4. And be it enacted, That the person so receiving

said certificate shall file the same with the clerk of the county in which she resides, and said clerk shall file said certificate and enter a memorandum thereof, giving the date of said certificate and the name of the person to whom the same is issued, and the date of said filing, in a book to be provided and kept for that purpose; and for which registry the said clerk shall be entitled to demand and receive from each person registering the sum of twenty-five cents.

5. And be it enacted, That the State Board of Medical Examiners are hereby authorized and empowered to execute the provisions of this act, and shall hold examinations of candidates for certificates in midwifery at such times and places as may be deemed by them expedient.

6. And be it enacted, That the State Board of Medical Examiners may refuse licenses to persons of bad character or guilty of unprofessional or dishonorable conduct, and may revoke licenses for like cause, or for neglect to make proper returns to the various health officers of births.

7. And be it enacted, That this license does not give any person practising midwifery within the meaning of this act the right to perform version or treat breech or face presentations, or do any obstetric operation requiring instruments, or treat any abnormal condition, except in emergency, or make returns to the various health officers of still-births, or puerperal diseases, but shall call in a qualified physician to treat the same.

8. And be it enacted, That any person shall be regarded as practising midwifery within the meaning of this act who shall publicly profess by advertisement, sign, card, or otherwise to be a midwife, or who shall for a fee attend to women in childbirth, but nothing in this act shall be construed to prohibit gratuitous service in case of emergency nor to the legally qualified physicians or surgeons of this State.

9. And be it enacted, That any person practising midwifery in this State without first complying with the provisions of this act, shall be guilty of a misdemeanor and shall be punished by a fine of not less than ten dollars nor more than fifty dollars, or by imprisonment in the county jail for not less than ten nor more than thirty days, or both, in the discretion of the court.

10. And be it enacted, That all acts or parts of acts inconsistent herewith be, and the same are hereby, repealed, and that this act shall take effect immediately.

Respectfully submitted,

EDWARD A. AYERS, M.D., *Chairman*,
SIMON BARUCH, M.D.,
HENRY R. DRAYTON, M.D.,
S. SEABURY JONES, M.D.,
HERMAN L. COLLYER, M.D., *Committee*.

A Strange Suggestion.—It is reported that King Oscar, of Sweden, offered to place a government cruiser at the disposal of the members of the National Medical Society. The intention was not that the Society should go off for a quiet sail as a recreation after the close of their scientific labors, but, as His Majesty suggested, that all the meetings should be held aboard ship upon the high seas. The inference is that the king regarded the presence of so many doctors on shore as highly objectionable.

Mortality from Overcrowding.—Dr. L. Lander writes: "In your report of the discussion which took place at the meeting of The County Medical Association, October 28th, on the subject of "The Dangers to Public Health from Overcrowding of Population," I am credited with the statement that 'The mortality of those (tenement) districts was almost fifty per cent. higher than in private dwellings.' Your reporter misunderstood me. I did not say that. What I did say was that in some districts, where tenement-houses only are found, the comparative mortality was about fifty per cent. greater than it is in the districts of fine residences; which is a very different statement. In this connection I beg to call attention to the statement of Mr. Marcus Reynolds, noticed editorially in a late number of the MEDICAL RECORD, that 'The death-rate of the tenement population of New York is slightly lower than that of the remaining population;' and I would refer Mr. Reynolds to the statistics of the Board of Health, which seem to be widely at variance with his statement. It should also be remembered that 'the remaining population,' spoken of by Mr. Reynolds, includes the hospitals, the almshouses, the penitentiary, and the asylums, in which the death rate is very much higher than it is in 'the districts of fine residences' which I mentioned."

The Tooth pick in Respiratory Gymnastics.—The practice of inhaling medicines, says Dr. Charles Denison, properly comes under the head of respiratory exercise. So much so, that I very much doubt if the atomized antiseptics, or whatever is inhaled, have the good effect ascribed to them; but rather the effect is due to the respiratory gymnastics necessitated in the process of inhalation. The truth is, except in the upper air-tract, the medicaments do not ordinarily reach the infected portions. The fibroid process of healing—in other words, the incapsulation of tubercle, which is the most prominent feature of the natural arrest of chronicity of lung tuberculosis, tends to close or shut off the affected portions from the inhaled air. In this protecting policy the whole lung is more or less implicated, and the inspired remedy goes with the inhaled air to the unaffected lung on the other side. For this reason a great deal of the inhalation treatment, so popular with certain specialists, is utterly useless; or, by irritating sound lung areas, is positively harmful. For this reason the utility of exhaling tubes is explained. The principle involved is the secret of a peculiarly successful form of respiratory gymnastics. The idea is to inhale freely and fully, but to exhale with effort, and with restraint or some obstruction to the outgoing air. Thus the density of the expansive air within the thorax is so much increased, that it will work its way into areas of lung where otherwise some air-cells would be unused but for this prolonged effort. Again, some congestion or infiltration might still remain in out-of the-way lung-spaces, were it not for the *push* given to the blood circulation by the increased pressure of this pulmonary air, thus (during this forced expiratory effort) thrown into marked contrast to the rarefaction existing there during inspiration. This process of breathing is much like the natural stimulus of altitude. If assiduously practised, it is an invaluable exercise. But it is unnecessary to resort to any secret or extensive apparatus, except that to some people mystery enhances any good they are to receive. A large tooth-pick, three-fourths to five-sixths plugged at the outer end, or a small glass pipette or dropping-tube, with nozzle large enough to just about take in the head of a pin, will answer the purpose quite well.

Chromic Acid and Glycerine should not be prescribed together, as the mixture is explosive, so says a writer in an English journal.

An Antiseptic Varnish.—Dr. Berlioz, of Grenoble, gives the following formula for an antiseptic varnish which he calls sterisol:

℞.	Gum lac (purified, very soluble in alcohol)	ʒ ix.
	Powdered benzoin	ʒ ijss.
	Tolu balsam	ʒ ijss.
	Crystallized phenic acid	ʒ iij.
	Essence of cinnamon,	
	Saccharine	āā ʒ jss.
	Alcohol	ad Oij.

The employment of this varnish is indicated wherever there is abrasion of the mucous membrane, as in diphtheria, mucous patches, herpes, etc. It adheres to the mucous membranes as well as to the skin, over which it forms a thin pellicle.

Chancre of the Tonsil is characterized by enlargement of the tonsil, extreme hardness, superficial ulceration marked by sharply defined edges, and enlargement of the neighboring lymphatic glands.—BULKLEY.

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THE HISTORY OF THE DISCOVERY OF THE OPHTHALMOSCOPE.[1]

By PROFESSOR HERMANN v. HELMHOLTZ,

BERLIN, GERMANY.

PROFESSOR KNAPP, after introducing Professor Helmholtz, Mr. Alexander Graham Bell, and President Seth Low, spoke as follows:

GENTLEMEN: Professor Helmholtz has kindly accepted an invitation to speak to you about the discovery of the ophthalmoscope, and I think it opportune to preface his address by some historical remarks on the development of ophthalmology. I shall be exceedingly brief and go over the field with very rapid strides.

Ophthalmology is one of the oldest branches of medicine on record. We find in the hieroglyphics of the old Egyptians a full account of the eye remedies that were used at that time. They are collected in the so-called Papyrus Ebers, which is preserved in the library of the university of Leipsic, a German translation of which I pass round. It dates from the eighteenth Egyptian dynasty, certainly more than fifteen hundred years before Christ. The remedies are very quaint; some good, which we still use, and some full of superstition and filth. The Egyptian physicians were priests, and to your consideration I recommend two of their customs. One was that no remedy should ever be applied without an invocation to the gods (with such and such a salve, such and such a prayer had to be pronounced!); the other, that they were bound by an orthodox rule to use no new remedy or a new method of treatment which was personal to any one of them; for they said that the power of any one mind was so small compared with the accumulated wisdom of ages that it counted for nothing. The latter is evidently a rule which would bar progress. Nevertheless, you can see in what spirit it was given. At that time, I dare say, a number of remedies were made known for personal reasons, just as to-day a multitude are claiming our attention of which only an infinitesimal part are better than what we had before. Innovation is not identical with improvement. An inquiring mind will always be carried toward conservatism, and conservatism is certainly just as commendable in medicine as in anything else. It is truly a good rule that nobody should use a new remedy before he has fully acquainted himself with the acquired stock of knowledge that has stood the test of time.

The healing art passed from the Egyptians to the Greeks, to the Romans, to the Arabs. I need only refer you to the works of Hippocrates, Galen, etc. In the middle ages there was a healing art and also an ophthalmology. As a curiosity I pass round a quaint volume. It is by Bartisch, of Königsbruck, in Saxony, and dates more than three hundred years back. In it there are a number of procedures mentioned which are still in use, but the majority of them are valueless. In the eighteenth century ophthalmology was cultivated in Italy and France. The most important invention practical ophthalmic surgery has ever made was the extraction of cataract by Jacques Daviel, in 1757.

Toward the end of the last century ophthalmology was recognized as an essential department of medicine, and special eye hospitals were built in the larger cities—London, Vienna, and very soon after in New York, Boston, and Philadelphia. The Eye and Ear Infirmary at Second Avenue and Thirteenth Street is the oldest and largest in this country. Ophthalmology progressed *pari passu* with general medicine, fostered by the development of natural science, anatomy, physiology, and pathology. In England, in the first half of this century, ophthalmology was zealously studied. The acquired knowledge of eye surgery, up to 1847, was carefully collected in a classical treatise of eleven hundred pages by William Mackenzie, of Glasgow. It presents the ante-ophthalmoscopic period of ophthalmology so completely and truly, that it will remain a landmark in medical history.

In the year 1851 Professor Helmholtz invented the ophthalmoscope, and introduced a new epoch for ophthalmology. It was an event in science opening a field which to all previous ages had been impenetrably dark. To view the background of the eye with a magnifying power of about sixteen diameters, to see the optic nerve, the retina, the blood-vessels, and a multitude of other physiological and pathological conditions, was a thing for which the world was so utterly unprepared that you can imagine what wealth of discoveries followed in its wake. The Professor will speak to you of the investigations that led to the discovery of the wonderful instrument, but allow me to bring to an end this rough-drawn sketch of the history of ophthalmology.

Immediately after the discovery of the ophthalmoscope it was taken up by men of great mental calibre—A. von Graefe, in Berlin, E. Jaeger, in Vienna, and others. At that time every look into the eye was a discovery, but the scope of the instrument is so great that even at the present time it is still the most powerful means of ophthalmological research. With it we can study, better than with anything else, pathological anatomy in the living. Hemorrhages and their changes, embolism, infarctions, thrombosis, inflammations of all kinds, foreign bodies, and a multitude of other anomalies, we can follow up with a precision that even surpasses that afforded by the post mortem table. Moreover, we do not only see the disease in one given condition; we watch its beginning, course, and termination; we have the natural history of the disease before us. The possibility objectively to determine with the ophthalmoscope the refractive condition of the eye and its many anomalies and degrees, is one of the finest accomplishments of the well educated physician.

Professor Helmholtz, however, did not stop at the invention of the ophthalmoscope. He went over the whole field of physiological optics. There was not the remotest corner that he did not personally cultivate, criticising, verifying, correcting, and broadening every branch of this immense and exceedingly beautiful department of natural science. The outcome is a classical treatise which I pass round, a whole storehouse of knowledge to which your teacher and a great many other retailers daily go to buy and borrow.

I will mention some of the most remarkable discoveries in optics, and advances made in ophthalmology, which, besides the invention of the ophthalmoscope, we owe to Helmholtz. One is the discovery of the mechanism of accommodation—that wonderful faculty by which the healthy eye is enabled to see objects near by and immediately afterward, with the velocity of lightning, others at an immense distance.

The mechanism of this faculty was not understood,

[1] Delivered at the opening lecture of Professor H. Knapp's Ophthalmic Clinic at the College of Physicians and Surgeons, New York, October 3, 1893.

though discussed for centuries, till Professor Helmholtz solved it through another instrument of his invention which you see here, the ophthalmometer. Up to that time it was thought that the extrinsic muscles of the eye compressed the eyeball and made it more spherical. This view had to be given up, because, though possible, it was not true. Some thought that the crystalline lens moved to and fro and changed the focus, just as the focus is changed in the photographer's camera. This view had also to be given up because it was not true. Professor Helmholtz found that accommodation was due to the action of the muscles called the muscles of accommodation, rendering the crystalline lens more convex, so that its refractive power becomes much greater.

An image reflected from a convex surface is smaller than the original object, the reduction in size being in proportion to the degree of convexity of the refracting surface. Professor Helmholtz measured the sizes of the images reflected from the lens when the eye was at a state of rest, and then again when it was under the strain of accommodation, and found that they had become smaller. As there had been no change of distance of the object from the eye, the difference in size between the images could be accounted for only by a change in the refractive power of the mirror, that is, the anterior surface of the crystalline lens. This proved true, and all discussion on this question was ended. It was a truth which, when once recognized, is a truth forever.

Professor Helmholtz not only discovered the law of accommodation, its existence, I may say the quality of this phenomenon; but, like a true natural philosopher, went on to ascertain its quantity. He measured how much smaller that image had become, and from the smallness of the image he could judge of the radius of curvature of the surface which produced it. This change of radius of curvature in the refractive power represented a quantity which was equal to what we call the range of accommodation.

This was the solution of this very obscure phenomenon which had occupied the best minds a long time. It was as fruitful as it was brilliant.

With the ophthalmometer, Helmholtz and his followers found the remarkable and very important fact that the eye is not a sphere: that its horizontal and vertical diameters are not equal. In other words, the eye is an ellipsoid, and therefore produces a very peculiar kind of refraction. It gives a dispersion image which terminates in two straight lines at right angles to each other. This peculiarity was soon recognized as a defect in all eyes, diminishing the acuteness of vision more or less. Its recognition enables us, by the use of cylindrical glasses, to correct defective vision in multitudes of people. By a modification of Helmholtz's ophthalmometer, made by Javal and Schiötz, the difference between the vertical and horizontal meridians can now be determined in a very short time—several minutes—and the correcting glasses prescribed.

Gentlemen, I might go on in this way, but I do not want to consume too much time. I only beg to say a few words still with regard to the usefulness of the ophthalmoscope as applied to practical medicine. I have here a few drawings to illustrate what can be done with the instrument. The examples in which the ophthalmoscope has proved useful, count by hundreds.

Here, on the wall, you see a picture of the normal background of the eye, and another in which the course of the blood-vessels is interrupted at the margin of the optic disk. This second picture represents the eyeball under increased tension, a disease which is called glaucoma. The eyeball being too tight, the pressure acts upon that part which is most feeble, most yielding—that is, the cribriform membrane through which the fibres of the optic nerve pass.

This disease is not infrequent, and up to 1858 was absolutely incurable. Then came Professor Albrecht von Graefe, of Berlin, who found for it a remedy, iridectomy, the cutting out a piece of the iris, whereby the increased intra-ocular tension was relieved and the disease cured. From that time forth every oculist has saved by this operation dozens of eyes every year. It was a great stride. Here also the diagnosis depended upon the ophthalmoscope. The ophthalmoscope is the best, the most accurate, and the most practical diagnostic instrument to which thousands of our fellow men owe the preservation of sight. Professor von Graefe with his astonishing clinical penetration, made many discoveries with the ophthalmoscope which were landmarks in the progress of ophthalmology.

Let me cite but one example. In 1858, Professor R. Virchow said in one of his lectures, it must be possible with the ophthalmoscope to see embolisms in the living, just as he and most other pathologists had seen them, on the post-mortem table. He said the retinal artery lies open to our view; it divides into two branches, and the time is probably not very far distant when this condition, embolism, will be directly seen, and then it can be studied with all its consequences. I was a student at the time when Virchow made that statement. A week later Von Graefe diagnosed the case at his clinic. He examined the eye by means of the ophthalmoscope, described the conditions present, and his description of embolism is still classical. Von Graefe was not only an excellent diagnostician and pathfinder, but also a great operator. His name ought to be mentioned as one of the first, if not the first, in practical ophthalmology.

Dr. Knapp continued his remarks by demonstrating ophthalmoscopic pictures of glioma of the retina and sarcoma; he dwelt upon the importance the anomalies of refraction and motility had gained of late, and concluded with a graceful tribute to the merit of a young oculist, Dr. Carl Koller, now in our midst, for having, in 1884, introduced the local anæsthetic cocaine into ophthalmic practice.

Professor Helmholtz then rose, and, greeted by the students with the most enthusiastic applause, spoke essentially as follows:

Gentlemen, Professor Knapp asked me to tell you the story of the invention of the ophthalmoscope. In complying with his request I must beg your pardon, first, for being obliged to speak of myself; secondly, for my insufficient command of the English language.

At the time when I devised the ophthalmoscope I was professor of physiology and general pathology in the University of Koenigsberg. My career before had been somewhat erratic. When at school my ardent desire had been to study physics, but physics at that time was a branch of science that did not promise its followers a good livelihood. It is different nowadays.

My father told me that he did not see how it was possible to maintain me in the study of physics or inorganic natural science alone, but if I would also take up the biological department, or practical medicine, he could help me, so I went to become a medical man.

What for the time was a great disappointment to me, afterward turned out to be a very lucky event, for it enabled me to become professor of physiology in the University of Koenigsberg. I lectured on all parts of physiology, and so came also to tell my hearers what was known of the human eye and of the eye of animals.

I think that no physiologist doubted, until the end of the last century, that the eyes of cats, dogs, oxen, and other mammals, and of birds, developed light of their own which shone forth at night. It seemed to them to be the same process as was observed in the luminosity of insects in the water, etc.

Prevost discovered, at the beginning of this century, that the eyes of mammals which appeared luminous possessed a peculiar anatomical structure, that is, what by anatomists is called the tapetum, situated on the background of the eye. This tapetum has a very resplendent surface, is composed of a peculiar kind of very fine fibres, of very regular thickness, which throw off colors like a layer of thin plates, as was discovered by Newton long ago. This light shone forth from the eye of

the dissected animal just as it did during life, so that it became very probable that the light of the living eye was really not light originally produced by any influence of the nervous system on this organ, but that it was reflected light. At first, however, physiologists who had to speak of these things were rather at a loss to explain how the light could get into the living eye. I must remark that the intensity of the light coming back from such a luminous eye is often very surprising. Even if there is no great amount of light in the neighborhood of the animal, the observer can sometimes see the eyes of the animal luminous in a very high degree.

From the time of Prevost, say about 1810, at least, doubt awoke as to whether this was not only reflected exterior light. Professor Brücke, of Vienna, made microscopical examinations of the tapetum and its relations to the retina, and endeavored to show that the animal having such a tapetum could get a stronger luminous impression from its retina than another without the tapetum. He said that if there is a tapetum and the light is reflected from the background of the eye through the pupil and back, then the light possesses twice its original luminosity.

About 1846 the English oculist, Dr. William Cumming, discovered that the experiment which had succeeded on the luminous eyes of mammalia could also be performed on the living human eye, and everybody's eyes could be made luminous. It is an entertaining experiment in a social gathering, and students have applied it to frighten young ladies.

The experiment is very simple. An animal or human being is put in a dark room, a light is placed at some distance in the background. The eye of the observer is nearly in a direct line between the two. The rays of the light pass alongside the head of the observer into the eye of the observed, are reflected back in the direction from which they proceeded, making the observed eye appear very luminous to the observer. The effect is very curious, giving the impression of seeing a spirit or any other supernatural phenomenon. This experiment was first made by Cumming, and afterward, independently, by Brücke.

Such were the facts known by scientific men in 1847, when I began to search for the ophthalmoscope. Brücke knew that the nearer the eye of the observer was to the line of light passing to the eye of the observed, the more luminous would the observed eye appear. But nothing had been seen of the interior structure of the seemingly luminous eye, the impression given being only that of a diffuse appearance of light covering the whole pupil.

In my lectures I had to give an account of these experiments, and to try to give an explanation of the phenomena. I was obliged, therefore, to seek for an explanation myself, and I may say that it was not difficult to find—at least for a man who had occupied his time with reading physics and chemistry, and in making experiments, as far as his scanty means would allow. Being acquainted with the principles of optics as far as they were then known, I proceeded to analyze the course of the rays of light in the experiment just alluded to, and thus reached an explanation of the phenomena, the correctness of which was afterward confirmed by the ophthalmometer.

If you have a luminous point from which rays of light go out into a room, you can, by the use of lenses or mirrors, cause those rays to be refracted or reflected in a line forming any angle, large or small, with the original course of those rays. You can even make them return in the same space which they originally traversed, and if all the rays are thus reflected a complete image is formed of the luminous object. Let the rays of light fall upon the retina and be from there reflected back through the refracting media of the eye, passing out to be united upon a single point outside. We should recall at this step the principle of optics, that when light proceeds from different luminous points, the rays when reflected fall upon the same points again. If, for instance, light proceed from A and B and pass through a refracting medium, or be reflected from a mirror and fall upon alpha and beta, it will be found that those rays proceeding from A fall upon alpha and not upon beta, and that those proceeding from B fall upon beta and not upon alpha. If the reflecting surface be the retina and the eye accommodated for the luminous body, then those of the reflected rays which had their origin at A will be reunited at A, and those from B will be reunited at B. In other words, none of the light starting at A will be reflected back to B, and none starting at B will be reflected back to A. Now, in the case of a luminous eye the observer obtains only an obscure image, because his own eye does not represent the point from which the rays originally started and at which they are united.

The human eye does not emit light, and therefore all that we see in it is the black ring of the pupil. Indeed, there are only two ways by which the eye can be made to appear luminous. One is to bring the luminous point very near to it, so that the eye cannot accommodate or arrange its focal distance to the distance of the luminous point, whereupon the latter forms only an irregular or diffuse image on the retina. A greater surface of the latter is illuminated from which rays of light can be thrown back into the room through the dilated pupil. If, then, the eye of the observer is at the proper distance and in line with the rays, he will be able to see some of the light which comes back. That is the case in the experiments of Cumming and Brücke, which were carried out in such a way that the image formed upon the retina was not sharp.

Now, one can make the diffusion of light in the interior of the eye still greater by putting a convex lens before the eye, the rays being united at the focal distance of the lens.

The Professor described and illustrated by numerous blackboard drawings how the rays of a light, placed at the side of two persons seated opposite each other, were thrown from a glass-plate, placed obliquely between them, into the eye of one, and passed through his pupil to the background of his eye. From the background they returned, the way they had travelled before, to the glass plate which reflected a part of them back to the light, whereas another part passed through the glass-plate into the pupil of the other person, and on reaching his retina made him see the pupil of the first person illuminated. A similar experience had been made by a student, Carl v. Erlach, after hearing a lecture of Professor Brücke, at Vienna. He was near-sighted, and accidentally the light from a gas flame fell upon his concave spectacles, was reflected into the eye of a fellow student, and made his pupil appear luminous to Erlach.

Professor Helmholtz continued: We have seen how it is possible to illuminate the eye by a light which is outside of the eye. The eye to be observed having been rendered luminous, there is only a second condition to be fulfilled, namely, to make it possible for the eye of the observer to accommodate itself to the focal distance of the one to be observed. That was easily done, it being only necessary to choose a lens of the proper focal distance. By placing it behind the glass-plate, the observer no longer sees a diffuse illumination of the pupil of the other person, but a picture of his retina in all its anatomical details.

All that was original with me in the matter was that I went to ask how the optic images could be produced by the light coming back from the illuminated eye. All my predecessors had failed to put this question to themselves. They had stopped in the middle of their way instead of going on to the end. As soon as I had answered that question I saw also how an ophthalmoscope could be constructed, and it took me only two days to do it and successfully to experiment with the new instrument. I say this to impress upon you how necessary and how useful it is to go on to the end when investigating natural phenomena. You must not go half-way and then stand still or go back; you must finish your meditations,

go to the end, so that you may see clearly the full relation of the several phenomena to one another Having followed the chain up, link by link, to its end; having traced the rays of light on their course from the flame into the eye of the observed, and shown what becomes of them when reflected, and how they can, by the interposition of proper lenses, be united on the retina of the observer and thus give him a distinct view of the background of the eye observed; that was the solution of the problem; and with that, gentlemen, my story is told.

DENUDED CRANIUM: ITS TREATMENT BY PERFORATION OF THE EXTERNAL TABLE OF THE SKULL AND THIERSCH METHOD OF SKIN GRAFTING, WITH REPORT OF CASE.[1]

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R. P——, eight years of age, to avoid being hit by snow-balls while at play, ran into the basement of a saw-mill. The main shaft from the water-wheel ran through the room and in some way caught her hair, winding it upon the shaft and drawing her over twice, the first time sideways, the second backward, throwing the whole weight of the body upon the scalp, which was torn off.

The line of separation is clearly seen from the photographs, and runs from the root of the nose, through the right eyebrow, through the right ear, leaving only its lower lobe, downward and backward across the neck, exposing the insertions of the trapezius and sterno-mastoid muscles, upward and forward, removing the posterior part of the left ear, through the left eyebrow to the place of starting. Thus it is seen that the entire scalp was removed, leaving bare most of the frontal and parietal bones and part of the occipital.

I saw the patient for the first time, April 3d, ten days after the accident, and found her condition as follows: Pulse, 116, very weak; temperature, 100.6° F. The wound was septic, the muscles covered with an offensive gelatinous and purulent exudation. Most of the frontal, parietal, and occipital bones bare; the periosteum where present was dry as parchment. The bone was of a dull grayish color, dry except where bathed in pus from surrounding granulations.

Under ether anæsthesia the head and surrounding integument were thoroughly scrubbed, all hair and dirt removed, and irrigated with 1 to 2,000 bichloride solution, thoroughly curetted with a sharp Volkmann spoon, again irrigated with bichloride, and afterward sterilized salt solution. Under constant irrigation twenty-five perforations were made with a hand-awl through the outer table of the skull to the diploë. A few strips of skin were then taken from the patient's left thigh and placed over the forehead and left temporal muscle. The method of Thiersch, as perfected by McBurney, being used.

Some shock following, reaction was obtained by warmth and enemas of brandy.

April 5th.—Patient was carried twenty-four miles to Rutland, standing the journey well. Pulse, 100; temperature, 100° F.; mind clear.

April 6th.—Head was redressed; pulse, 110; temperature, 101° F.

April 8th.—Under strict antiseptic precautions and constant bichloride irrigation, fifty more perforations were made in the outer table of the skull, making in all seventy-five. Some of those previously made were also deepened, as they did not reach the diploë. A dental foot-power drill was used, which is far superior to the hand awl, as owing to its velocity no force is necessary and consequent danger to the inner table is avoided; it is much more rapid and certain. When the outer table has been perforated and the diploë reached, a feeling of lessened resistance is at once noted, and a little blood or bloody serum exudes, from injury of the vessels of the diploë. After curetting, through irrigation with bichloride and sterilized salt solution, Thiersch's grafts were taken from the thigh of an eighteen-year old sister and placed over the right temporal muscle, forehead, and occipital region. Sterilized protective and gauze wet in salt solution were placed over the skin grafts, and iodoform gauze over the perforated skull. She stood the operation well. That evening the pulse rose to 120; temperature, 103° F. The two following days the temperature fluctuated between 101 and 103½° F.

April 10th.—The dressings were removed except the protective over the grafts last placed. Most of the grafts from the first operation were destroyed. Granulations were growing through the sutures of the skull. Grafts were again taken from the sister and the remaining muscular portion covered. As the temperature during the next five days ran from 103 to 104½° F., the external dressings were changed each day.

April 15th.—Grafts were taken from the thigh of a sixteen-year old brother and placed over the occipital and frontal region where grafts had been destroyed. Three large grafts had taken over the right temporal muscle and

[1] Read before the Vermont State Medical Society, October 13, 1893.

were of a pink-rosy color and doing nicely. The pulse that evening reached 140; temperature, 105° F.

April 17th.—The bone (nine days after the last perforation) looked healthy and its returning vitality noted by a pink mottling running around the perforations and between them. In rubbing over the apertures a little blood stained serum exuded. The temperature reached 104½° F. at two different times during the twenty-four hours.

April 18th.—Grafts were again taken from the brother.

April 19th.—Eleven days after the perforations, granulations were present in nearly all the apertures, looking like little red points. The bone was rapidly regaining its normal pink color.

April 21st.—Grafts were taken from another brother. Granulations were growing very rapidly through the perforations, as were also those through the sutures. The temperature was very irregular, fluctuating between 102 and 104½° F.; pulse from 130 to 140. The patient was very weak during all this time, the mind was perfectly clear, and she had taken a large amount of nourishment and stimulants.

Cold baths did not reduce the temperature, but two and one-half grains of antifebrin, given when the temperature was highest, would reduce it, strengthen the pulse, and produce immediate sleep, while without it the patient would not sleep during the whole night.

During the first two operations, ether was administered, but after it was not, as the nerve-supply to the head being lost, no pain was experienced, even when the curette was used, except near the edges of the wound.

April 27th.—Nineteen days after the perforation, the granulations over the apertures were about the size of a split pea. Those over the sutures an inch wide and growing very rapidly; temperature began to subside, but the patient was still very weak. Grafts were again taken from the brother.

May 3d.—The temperature and pulse were steadily improving, as was also the patient's strength. Grafts were taken from a sixteen-year-old cousin.

May 7th.—One month after the perforations, only two spots about half an inch square remained of bare bone, the rest being covered by healthy granulations. The head was nearly covered by healthy growing skin-grafts; those a month old extending rapidly by marginal growth; the vitality of all was active. The patient's temperature did not run above 100° F. during the day; pulse stronger, appetite good, and strength fast increasing. One small piece of bone on the posterior part of the head, which was not perforated, exfoliated, exposing the diploë, under which were granulations.

May 10th.—The grafts on the right temporal region, thirty-two days old, did not look as healthy and began to show signs of breaking down.

May 13th.—Grafts were again taken from the cousin, the patches on the right temporal muscle had lost their vitality, some liquefying, others scaling off, leaving a smooth, pink surface underneath, which did not secrete pus. At first it was thought that this was skin, but afterward it proved to be granulating tissue. From this time the older grafts successively broke down, until, June 15th, only a few small patches remained. The head was covered by a firm, granulating tissue. The patient's temperature had been normal for a week, pulse strong and full, and she was able to walk a mile or two without fatigue.

June 15th.—After thorough curetting and irrigation, grafting was recommenced, and during the interval between that and August 15th, the head was again nearly covered by healthy growing skin. Soon after this latter date small ulcers began to appear in the older grafts, which gradually coalesced until large areas were destroyed. The skin taken from the subject, however, did not show this tendency, but steadily increased by marginal growth, was pink, elastic, and pliable, showing no tendency to ulcerate. The grafts were kept covered by lanoline and two per cent. iodoform, which stimulated them and prevented to some extent their breaking down.

August 22d.—The condition of the head was excellent, one-third of its area being covered by healthy grafts which were extending rapidly; the remaining granulating tissue was firm and healthy. The temperature and pulse had been nearly normal about three weeks, the general condition good, and she was able to walk long distances.

August 24th.—The patient was taken with diphtheria, large patches of membrane rapidly formed on the tonsils, pharynx, uvula, and even the mouth and lips. Temperature at first was 99°, afterward subnormal. On the fourth day she died.

Examination of the head after death showed the following conditions:

One third of its area covered by skin. That taken from others was brittle, and on being lifted forcibly

by forceps broke. That taken from the subject had all the characteristics of normal skin, did not break when forcibly lifted by forceps, and was pliable and velvety. The remaining granulating tissue was firm and hard. The new scalp was slightly movable over the bones. On removing it from the bone it was found to be composed of three layers intimately connected with one another. That nearest the bone had all the characteristics of normal periosteum. The second layer was firm, fibrous tissue supporting a third layer of firm granulations. The bones of the head were normal and healthy, the apertures having contracted into little foramina through which an artery and vein ran. New branches of the temporal and occipital arteries had formed running well up to the vertex.

Remarks.—In perforating the outer table of the skull a direct channel is made, through which septic infection may reach the general system. A few branches from the veins of the diploë anastomose with the dural sinuses and veins of the meninges; the larger number, however, empty directly into the general venous circulation, so general infection is more likely to occur than local cerebral manifestations. At first the apertures are absorbing, but gradually, as granulations fill their space, they become excreting. This is well illustrated by the temperature in this case, which ran very high after perforating, and did not subside until all the apertures were well filled by granulations, when it rapidly fell to nearly normal.

Ten days after perforations are made in the outer table of the skull, if the surface is rubbed, a little blood-stained serum will exude. In fourteen days small granulations appear, and in twenty-one days reach the size of a split pea; from this time the growth is very rapid, and by the fourth or fifth week will join on the edges, forming a new

scalp of granulation tissue nourished by the diploë through the perforations. This gradually contracts into a firm fibrous tissue, its inner surface making a new periosteum. The apertures contract slightly, and conduct an artery and vein of new formation. New branches of the occipital and temporal arteries gradually form. Skin removed from a second person will do well, and after two weeks extend by marginal growth. Its activity will continue for five or six weeks after graftings, when it loses its vitality, becomes brittle, and either liquefies, scales off, or small ulcers start, which extend and coalesce until large areas are destroyed. After well started it is not as soft and velvety as normal, but is paper-like and brittle; it cannot be picked up by forceps without laceration. Skin taken from the subject shows more vitality; after two weeks extends rapidly by marginal growth, it is velvety and pliable, and can be picked up by

forceps without laceration. It shows no tendency to ulcerate or break down in six weeks, but continues to extend rapidly by marginal growth. The marginal growth of skin from the sound integument is cicatricial and delicate, unless stimulated by grafts placed near it, when they stimulate each other and become normal skin.

In using small grafts make a little trough and press the graft well into the granulating tissue. When large grafts are placed, use the curette and irrigator freely, that no diseased tissue may be left under them. Do not overlap the grafts, but leave a small place for drainage, so if pus should form, it would not destroy large numbers. After grafting, the protective should be left four days or longer, unless much pus is present, as removing the protective is liable to displace and destroy the grafts. After the first dressing they should be removed every other day, or when pus accumulates. After permanently removing the protective at two weeks, an oily substance, as lanoline two per cent iodoform, will protect the skin from drying, (as the new skin has no oil glands), stimulating their growth, and preventing the gauze from sticking and detaching them. Oiled silk or rubber tissue should be placed over the dressings to prevent their drying.

As soon after the injury as the patient's strength will allow, Thiersch skin grafts should be taken from the subject, and covered over the muscular tissue, covered by the usual dressing of protective and sterilized gauze wet in salt solution. The perforated bone should be covered by an absorbent antiseptic dressing. Work first on that part of the head not subjected to pressure in the recumbent posture. In removing grafts go deep enough to reach the true skin, as the epidermis alone has not enough vitality. The surface from which grafts are removed should be at once covered with sterilized gauze, until all oozing stops. Dry sterilized protective covered with iodoform gauze, should then be applied. If after four days much pus is present, the external dressing should be removed, otherwise not disturbed for eight days, when the surface will be found healed. Irrigating or rubbing the surface just before the first dressing, or subsequently, increases exudation and retards healing.

I wish to take this opportunity of thanking the Rutland doctors, and particulatly Drs. Francisco, Caverly, and Gale, for their kind assistance and interest in this case.

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OBSERVATIONS ON THE ROTARY-LATERAL CURVATURE OF THE SPINE, WITH SPECIAL REFERENCE TO ETIOLOGY AND TREATMENT.[1]

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THE subject of rotary-lateral curvature of the spine is one upon which there has been much written, concerning the etiology, pathology, and treatment, and upon which there has been considerable discussion. This would in a measure indicate the usually unsatisfactory or only partially satisfactory results that are derived from the treatment of these cases, and the importance of giving them proper and early attention.

I shall not, in this paper, attempt to enumerate all the ideas and views of the etiology and treatment of this condition as presented by the leading orthopedists of this country and Europe, but I shall, as briefly as possible, classify the causes which are generally accepted, and give the results of my observations, laying the greatest stress upon the most important and the most frequent causes, and submit the treatment which I have found successful.

Rotary-lateral curvature occurs most frequently, according to several observers, between the seventh and fourteenth years, only a small percentage occurring after the eighteenth year. The following figures will show the percentages occurring during the different periods in one thousand cases of Eulenberg, viz:

Years.	Per cent.
Until two	0.5
Two to three	2.1
Three to four	0.9
Four to five	1.0
Five to six	3.3
Six to seven	21.6
Seven to ten	56.4
Ten to fourteen	10.0
Fourteen to twenty	2.8

Girls are more prone to this disease than boys. Why this should be has not been definitely determined, but there is little doubt that the differences in the rapidity of growth and development during the earlier years, the organization of the nervous systems, the conditions favoring or opposing muscular development, and the habits of the sexes after school hours, are important elements in determining this fact.

I will pass over the pathological and anatomical causes, viz.: Pleurisy with adhesions, empyema, paralyses from different causes, rachitis, Pott's disease of the spine, inequalities of the length of extremities, and loss of an extremity, and consider only the following causes, viz.:

1. Hereditary tendency.

[1] Read at the Pan-American Medical Congress, September 5, 1893. Section in Surgery.

2. General temperament and the condition of the mind and nervous system.

3. Lack of development of the muscular system, and the general physical condition.

4. Habitual faulty position with superimposed weight.

1. Hereditary Tendency.—I have not been able to find any allusion citing this as a factor in the etiology of the disease, but I have frequently noticed slight curvatures and upon closer examination found decided scolioses in the mothers of girls brought to me for treatment.

I have at the present time four patients under treatment whose mothers have distinct scolioses, and one of these patients has four sisters, ranging from fifteen to twenty years of age, with slight curvatures.

I am of the opinion that if this condition of the mothers of patients were more closely investigated, that "hereditary tendency" would become generally accepted as one of the causes.

2. General Temperament, and the Condition of the Mind and Nervous Systems.—This heading is one which is apt to give rise to considerable doubt when cited as a cause, because most observers lay all their stress upon the deformity and its mechanical treatment, and to a certain extent lose sight of the general, mental, and nervous conditions of the patients.

The general temperament of most girls afflicted with rotary-lateral curvature is apathetic, indifferent, somewhat lazy, and sometimes a trifle morose. As a rule they are backward in their studies at school, and usually show a decided disinclination to romp and play after school hours, with the same vigor and enjoyment as do their companions. The facial expression is frequently a vacant stare, the lower jaw dropping and the mouth being open, giving the patient a silly appearance. This was particularly well marked in a patient sent to me for treatment by Dr. Leonard Weber, and it became more conspicuous by its absence, as noted by Dr. Weber, after the patient had been under treatment for a short time. Of course, there are all gradations between an highly intelligent and an almost idiotic countenance, but where there is a lack of intelligent expression, the face certainly changes after energetic treatment.

Under this heading, I would also call your attention to a peculiar lack of co ordinating power, or lack of muscular control with which some patients are possessed. It seems to some patients, until properly instructed, almost an impossibility to fully extend an entire extremity, either upper or lower. If, for example, a patient be instructed to hold an upper extremity abducted at a right angle to the body, palms down, and hold it rigid at all the joints and fully extended, the observer will find that if the wrist be extended, the elbow is apt to be flexed, or if the elbow be extended, the wrist will be flexed, or if both the wrist and elbow be extended, the fingers will be either flexed or hyper-extended.

This lack of co-ordination or lack of muscular control can be and is made to disappear through the muscular instruction and development which forms part of the treatment. Patients usually, when told to grasp an object firmly, a cane for instance, neither properly approximate the palm to it so as to exert an even pressure upon it, nor do they encircle it with the thumb; they hold it between the thenar and hypothenar eminences of the palmar surface of the first set of phalanges, the thumb being at a right angle to the phalanges, and the palm being hollow, thereby showing their inability to exert muscular influence in a normal or proper direction.

3. Lack of Development of the Muscular System and the General Physical Condition.—General muscular development is frequently found to be very poor or almost wanting. In most cases the trapezii, the rhomboidei, the sterno-mastoids, and deltoids especially are found almost rudimentary. The back, chest, and abdominal muscles are generally found in worse condition than the muscles of the extremities. With this state of affairs we naturally expect and find a lolling and lounging muscular habit, and a general want of muscular tonicity and precision. Patients when suspended, are rarely able to sustain their own weight.

The physical condition is as a rule not good, the patients being frequently the victims of a poor digestion accompanied by malassimilation. In girls leucorrhœa is generally present and frequently copious. In mentioning the general condition of health, I do not wish to be understood to claim that when the general system is run down, a curvature will occur, or that there are no cases of curvature in which the general health is not impaired, but I do claim that when there are tendencies to a curvature, as cited above, with the conditions as explained in the next paragraph, an impaired condition of the general health will greatly assist the rapid development of the deformity.

4. Habitual Faulty Position with Superimposed Weight.—Resting the weight of the body upon one foot while standing, or sitting more upon one buttock than upon the other, and in either position permitting the shoulders to fall forward, and the chin to approximate the chest, shows a relaxation of all the muscles which hold the spine erect in the normal condition, and permits a sagging of the upper portion of the body upon the lower, and twists the spine and trunk into a mild form of deformity, the mechanism of which was so ably demonstrated by Dr. A. B. Judson[1] at the meeting of the American Orthopedic Association, in September, 1890. This deformity passes off when a normal standing or sitting position is assumed; but when such temporary deformity occurs not only daily, but several times a day, and for protracted periods, it gradually increases and later becomes permanent and fixed, and produces the actual bony and ligamentous changes which are met with in cases of long standing.

The faulty sitting position is more frequent than the standing, as children as a rule spend about five hours in the twenty-four, sitting in school. I will therefore call your attention to the school habits of children, while sitting, and their shifting of positions to relieve the tiring of the strained groups of muscles.

Dr. A. Baginsky[2] in his admirable paper read before the "German Society for the Care of Public Health" at Berlin, in March, 1888, says: "More and more are surgeons convinced through their anatomical and physiological investigations and from their practical observations, that scolioses, the most important of all deformities of the spine, in a very large majority of cases owe their origin to the influence of school life upon the organism of the child."

This writer further shows that if we observe a class of children during the early portion of school hours, more particularly if the subject of the lesson be interesting and the weather cool, they will all sit quite erect, with their heads well poised, their chests brought forward, their feet evenly placed upon the floor (if the lower extremities are not too short to reach it), and the frontal plane of their bodies parallel to the edges of the desks in front of them. Later on, one by one, the children will permit the shoulders to drop and fall forward, the chins to approximate their chests, thereby changing the entire contours of their spines.

There is a tendency to turn the trunk to the right or left, in order to relieve one buttock of the weight of the superimposed body. Some are apt to cross the thighs, thereby producing the same effect. The frontal planes of the bodies of the children are then no longer found to be parallel to the edges of their desks.

Dr. Baginsky shows even worse positions which are assumed by children during their writing lessons, when the frontal planes of their bodies are placed at right angles to their desks.

Any change of position, no matter how slight, changes the centre of gravity, and those muscles which hold the

[1] The Rotary Element in Lateral Curvature of the Spine. A. B. Judson, M.D., N. Y. Trans-American Orthopedic Association. Vol. iii., 1890.

[2] Ueber Rückgrads-verkrummingen der Schulkinder, Deutsche Medical Zeitung, Berlin, 1888, ix., pp. 529-541.

body upright are strained as soon as the position recedes from the erect one. When one set of muscles is thoroughly tired, the child changes position to relieve the strained set of muscles, and brings those muscles which have not been taxed into play.

When children become habituated to faulty positions in sitting, they are apt to, and do, assume analogous faulty positions while standing, and when these faulty positions have been maintained for a while, decided scoliotic attitudes are seen, and, as I have stated before, even though they be temporary, they become habitual, and lay the foundation for well marked deformities.

Before taking up the treatment of scoliosis, I do not think it amiss to call general attention to the pernicious effect of long and continued school hours, without intermission for play or calisthenics, and also the improper furnishing of school houses with benches, chairs, and desks of a regulation size, without regard to the varying sizes of the pupils, and consequently without any regard for their comfort and well being. Sitting at best is tiresome, not only to children, but to everyone.

Treatment.—In every case of rotary-lateral curvature, from the mildest case to the one which appears beyond redemption, the first efforts should be directed to the prompt removal of the causes, apparent or real, of the deformity. Any shortcoming of the extremities from paralyses, inequalities, or deformities, as well as disturbances of vision, should be corrected. The child should at once be prohibited from attending school, thereby eliminating the most persistent and potent cause. The general condition of health should be carefully attended to, by the correction of any disturbances of digestion or assimilation, by frequent baths to improve the condition of the skin, by the administration of tonics, if found necessary, to improve the nervous and muscular systems, and by sufficient open air exercise. The patient should have a properly constructed chair to sit upon; the seat of the chair should incline downward from before backward, the inclination forming an angle of about eight degrees with a line parallel to the floor upon which the chair rests. The back of the chair should be properly shaped to receive the back of the patient, and it should extend at a right angle to the seat, up to the shoulders of the patient; the seat of the chair should be at such a height that the patient can rest the feet comfortably upon the floor. In a chair of this description, the patient assumes a slightly reclining position, thereby relieving all muscular strain.

The patient should be instructed to rest frequently for from five to fifteen minutes at a time by lying supine upon the floor, the lower extremities fully extended, and the upper extremities also fully extended above the head. Self-suspension by means of a Sayre apparatus twice a day should be advised, and the patient should be instructed in exercises while suspended from an horizontal bar or from rings.

I shall now consider the various degrees of scoliosis, with reference to the treatment of each degree.

1. Habitual scolioses which can be obliterated by the voluntary muscular efforts of the patients.

2. Scolioses which are not affected by muscular efforts, but which can be reduced or obliterated by suspension of the patients.

3. Scolioses which are not affected by muscular efforts, or by suspension, the deformities being fixed.

In all three forms of scoliosis nothing is of greater importance than proper, thorough, and regular gymnastic exercises, which will equally develop the entire muscular system. Various kinds of exercises have been advocated by different writers and excellent results have been claimed by them.

I wish especially to call your attention to that excellent paper of Dr. Reginald Sayre,[1] in which he minutely describes the gymnastic exercises which patients should be taught. These exercises, with slight variations, according to the requirements of individual cases, are the ones I use in cases which come to me for treatment.

1. Habitual Scolioses which can be Obliterated by the Voluntary Muscular Efforts of the Patients.—In these cases I place my entire dependence for good results upon the general directions before described, and systematic and regular gymnastic exercises. I neither consider it necessary nor wise to give support to the patient by means of any apparatus or even a corset, but I prefer to leave the muscles which are being developed and strengthened by exercises, entirely unrestrained and free.

2. Scolioses which are not Affected by Voluntary Muscular Efforts, but which can be Reduced or Obliterated by Suspension of the Patients.—In this clase of cases I adopt the same course and plan of treatment as in the first class of cases, but in addition I find it necessary and beneficial to apply well-fitting, light, and well cemented plaster of Paris corsets, while the patients are suspended in a Sayre apparatus, and to permit the patients to wear them, if the deformities are obliterated when the first corsets are applied, until they have improved sufficiently to enable them to correct their deformities through their own muscular efforts. They are then treated as patients of the first class. In those cases in which the deformities are only reduced but not obliterated by suspension, as the patients improve under treatment new corsets are applied from time to time, until at last the deformities can be entirely obliterated by suspension. These also become patients of the first class.

3. Scolioses which are not Affected by Voluntary Muscular Efforts, or by Suspension, the Deformities being Fixed.—The treatment of this class is the same as that in the foregoing class, but other means must be resorted to to reduce the fixed deformities of the ribs and spine. I have found the forcible daily twisting of the spine and compression of the ribs, of considerable value in reducing the fixed deformities, and I have within the past two weeks begun the use of an apparatus used by Dr. Albert Hoffa, of Wurzburg. This apparatus is described in the *Zeitschrift für Orthopædischer Chirurgie*, 1891. Although I am not in a position to claim any results or benefit from the use of the apparatus, I judge from appearances and from the combined effect of suspension, fixation of the pelvis, twisting of the spine, and pressure upon the scoliotic eminence, that it will prove to be a powerful adjunct to the more successful treatment of old cases of fixed scolioses.

It will give me great pleasure to report the results of cases treated in this manner, whether successful or otherwise.

134 East Sixty-first Street.

[1] New York Medical Journal, 1888, vol. xlviii., pp. 533-538.

The Use of Cocaine.—1. Amount of cocaine used must be in proportion to extent of surface it is desired to anæsthetize. In no case should the quantity exceed one grain and three-quarters. 2. Cocaine should never be used in cases of heart disease, pulmonary disease, or in persons of highly nervous temperament. 3. In injecting cocaine, the intradermic method is preferable to hypodermic. By injecting into, not under, mucous membrane or skin, the risk of entering a blood-vessel is avoided. 4. During injection the patient should always be in a recumbent position; in operations upon the nose and throat the head should not be raised until anæsthesia is complete. 5. It is of great importance that cocaine should be pure, since its combinations with certain other alkaloids result in poisonous compounds.—*Brooklyn Medical Journal.*

To Quench Thirst After Abdominal Operations.—Water alone will do it, but if given by the mouth it is often vomited, or else excites intestinal activity, which, for some hours at least, must be carefully avoided. Hence we may inject per rectum half a pint of warm water every two hours during wakefulness. This will generally permanently relieve the thirst in twelve hours. —Dr. C. W. Cathcart.

DEPRESSED FRACTURES OF THE SKULL.[1]

A Clinical Study, with a Report of Forty Operative Cases at Chambers Street Hospital in the Service of Dr. Lewis A. Stimson.

By CARTER S. COLE, M.D.,

NEW YORK.

If an apology be needed, Mr. President and gentlemen, for calling your attention to a subject by no means new, and one to which a number of recent valuable contributions have been made, it is hoped that it will be found in the practical possibilities which it is the effort of this paper to propose.

In the eyes of many, statistics prove nothing; and yet, there are not a few who accept nothing as proved without them. While it is true that the number of cases here cited is, probably, small, the fact obtains that the same is sufficiently large to emphasize the validity of the arguments advanced; and I must here add my indebtedness for the use of these cases to Dr. Lewis A. Stimson, the Attending Surgeon to Chambers Street Hospital, in which institution all of the cases were observed.

In a comparatively fair acquaintance with practitioners in general, I find such a radical difference in the management of these cases—and it may be added such a material difference in the results—from the routine practice at the hospital mentioned, that it seems almost a duty to present to the profession the methods there employed. May it not be said that the average practitioner views a compound depressed fracture of the skull with such consternation and irresolution that he may almost be pardoned for inaction, if not for the results attending such a course. And yet, in the light of these cases, it will hardly be possible to suppose that one could hesitate as to the necessity of an immediate and accurate determination of the conditions present, and then, the adoption of prompt remedial measures.

It is not with regret that I am unable to recite a number of cases in which to neglect can be fairly attributed meningitis of one variety or another, cerebritis, local or general, epilepsy, atrophies, paralyses, and death. That such has often been the case we know too well; let that suffice.

Independent of the eight cases in which I, personally, operated, it has been my privilege to be present, or assist, at twelve of the other cases, as well as to follow them in their subsequent course; and whatever conclusions I may have to draw are from a personal experience, it is fair to say, with half of the cases, not from an abstract study of the histories.

Let me say first of all that Dr. Stimson insists on differentiating the "bursting" fractures from the circumscribed fractures; those due to multiple forces from those due to individual forces; the long linear fractures without or with inconsiderable depression in the one set of cases, with or without lines of fracture running into the base in which no operation is of value, from the circumscribed cases, especially with a wound present, in which we usually find that an operation for drainage and the relief of the depression and compression is entirely satisfactory.

That considerable depression may exist with no symptoms and with little prospect of immediate danger we know full well; and that a by no means inconsiderable compression may obtain under similar conditions is also well established; but in view of the hemorrhages from meningeal lesions, of the lacerations of the meninges themselves, of the injury almost sure to follow if not already present to the cerebral tissues in such cases, we cannot see how an operation could intelligently be denied.

In regard to the terms depression and compression we thoroughly agree with Dr. Phelps, who says: "If they be discarded, the form of injury the patient has suffered in a given case—as laceration, general contusion or fracture with hemorrhage—is more likely to be accurately determined than if attention be directed solely to a symptomatic condition that may not clearly exist."

After the original injury, if a wound be present, sepsis is our great foe; without a wound, softening of the clot or brain or both with or without meningitis are in the line of the consequences most to be feared. (Case reported by Dr. Wells in May, 1891, New York Medical Record.)

Apart from book symptoms how can we diagnosticate a fracture of the vault of the skull, with or without depression? Before attempting an answer, let us clear the field in a measure. First of all, the fine distinctions between compression and concussion appear to be simple in print; in practice the differentiation is by no means easy; indeed, at least in traumatic cases, though we may often have concussion without compression, the reverse seldom obtains. Who can say in severe cases where one begins and the other ends? I am much inclined to believe with Dr. Phelps that, "if they be discarded, the form of injury the patient has suffered in a given case—as laceration, general contusion, or fracture with hemorrhage—is more likely to be accurately determined than if attention be directed solely to a symptomatic condition that may not clearly exist."

As the result of trauma, it sometimes happens that without a fracture, a limited hemorrhage occurs, between the periosteum and bone, between the membranes of the brain and periosteum, or beneath the dura; but such cases are extremely unusual. Hemorrhage by contre-coup is more frequent, and is more serious. In any event, did compression from hemorrhage or depression obtain, operative interference would be indicated. We must not overlook the fact, however rarely it happens, that the inner table may be fractured and depressed, without a fracture or depression of the outer, nor the reverse, which more frequently happens.

Again, we must remember that, in many cases, absolutely no symptoms of compression are present immediately after the receipt of the injury, even where the depression and the compression are considerable; and in no instance are we justified in waiting for symptoms where we know that depression obtains, and a wound is present.

To come now more directly to the answer to our question, the nature of the injury is an important aid in reaching a general conclusion and presumptive diagnosis, apart from objective symptoms, *e.g.*, it is seldom that a child does not sustain a depressed fracture when kicked in the head by a horse; a brick falling a considerable distance, a sharp pointed pile, a bar of iron, etc. etc., are quite apt to cause such a lesion. A heavy person falling so as to strike the head on a sharp object (*e.g.*, Cases X. and XVIII.) is apt to sustain a depression, and if the fall be backward down stairs, a fracture of the base is quite likely. An axe or a hatchet in skilful hands is conducive to such lesions, as are beer bottles and edged bars. In short, a careful inquiry in regard to every detail of the accident may repay us richly. Again, where the depression is near the speech centre, the *diagnosis* can be, and indeed was, made in two cases (XI., XXII.), by pressing on the injured part, and making the patient cry out from deep coma. When, as is often the case, a large hæmatoma obtains, the examining finger may displace the clot first at one spot, then at another, until the whole space has been carefully examined for overlapping edges of bone; and yet, it is only fair to say that the rim of clotted blood will often deceive the closest observer. But, if there existed not the first symptoms of depression, and the character of the injury justified us in thinking that such was probable; or, to put it another way, if we were seriously in doubt as to the existence or non-existence of a depressed fracture, with compression either from bone or hemorrhage, with coexisting meningeal lesions, our duty would be to make an incision through the periosteum, over the suspected part, and carefully examine with the best of all probes, the finger. If a

[1] Read at the twenty-fourth annual meeting of the Medical Association of Virginia held at Charlottesville, October 31, 1893.

wound already exists, it can, with no impropriety, be enlarged, if we are unable to decide as to the condition of affairs. A probe will smoothly glide over *unruptured* periosteum where there has been even a considerable depression beneath, and we should keep this possibility in mind, and make sure of getting down to the bone itself. So much in a general way for what would lead us to suspect a depression, apart from symptoms, always keeping in mind the fact that a considerable depression may, and often does, exist with absolutely no symptoms. We will not dwell on coma, convulsions, and other objective symptoms, so that we may insist the more strongly on an absolute determination in cases of doubt by an incision, if necessary. What are we to do in the presence of such an injury? Our invariable rule at the Hospital is, symptoms or no symptoms, in the cases of circumscribed lesions, to operate, relieve the depression, and *without* delay. Several cases, it will be seen, were operated on with no anæsthetic, one with cocaine, but the large majority with ether. In cases of profound coma ether may be dispensed with, although, even in these, it often saves trouble after the compression has been relieved. First, then, settle in our own minds the existence of a depressed fracture, by making an incision, if necessary; next, be prepared to go ahead and relieve it. The technique and appliances are simple. The hair is shaved for several inches over and near the seat of depression, the scalp thoroughly scrubbed with soap and water and a brush, the operator's hands thoroughly scrubbed before and after the cleansing of the scalp, and both disinfected or cleansed and kept clean. A bichloride towel is wrapped around the head. A chisel—almost any small hard-steel chisel will do—a mallet, an elevator, a pair of thumb forceps, one or two artery clamps, needles, and a scalpel constitute all the necessary instruments, and to them we should add catgut, thoroughly sterilized, for sutures and ligatures, and antiseptic dressings. The incision should be sufficient to satisfy the operator that no depression exists beyond the parts readily examined. [This is mentioned because a fissure will sometimes run along under the scalp and be depressed at the termination. This was the case several times in the reported cases.] In order to elevate the depressed bone, we have never seen but one case (X.) in which it seemed especially difficult to attain the result by the use of the chisel; in which, to put it more strongly, the trephine seemed justifiable. As a matter of fact, the latter instrument should be reserved for cases in which the outer table of the skull has not been fractured, but in which it is desirable to inspect the dura or brain. The secret of so loosening the pieces as to elevate without difficulty consists in removing with the chisel the over-lapping edge—generally $\frac{1}{16}$ to $\frac{1}{8}$ inch—so as to allow the border of the depressed edge, when elevated, to pass by the border of the bone which has overhung it. Sometimes a little triangular piece of bone is detached completely, and is easily removed, and the elevator readily introduced; but it is seldom possible to completely elevate without chiselling away the edge overhanging. No loose bone is removed, that is, none of the fragments, unless completely detached, and care should be taken when elevating not to detach pieces already partially free. A small piece can, without fear, be removed; but, if a piece of considerable size is completely detached, it is better to try to get an attachment for it by leaving it, possibly where one side has a serrated edge, trying to force the edges together. The slightest periosteal or dural attachment is invaluable, and should be inviolable. The rongeur is occasionally useful, but seldom necessary.

Any laceration of the dura and of the brain substance naturally adds a complication to the prognosis, but in cases promptly and properly attended, this seems not to have changed the generally excellent result. Cases complicated by extensive laceration of brain substance, or by a line or lines of fracture extending into the base, are almost uniformly fatal. Suicidal gunshot wounds of the skull are almost invariably fatal, if they enter the cranial cavity. In one case we have seen the ball escape in the roof of the mouth, and in another case be buried in the labyrinth of the ear, without producing a fatal result; but in neither case did it enter the cranial cavity.

To complete the technique, if the vessels cannot be readily caught, the cavity can be well packed with gauze and the edges of the wound sutured after twenty-four or forty-eight hours, or partly sutured at the time, and the gauze removed after twenty-four hours, and then the sutures completed or not according to the amount of discharge. Over all put a full dressing and good firm bandage. A drainage-tube will seldom be necessary, and if used should not come in contact with the brain itself. The sinuses sometimes give trouble from hemorrhage, but gauze packing and good compression generally suffice to control it.

In ordinary cases when a light gauze drain is used—and we are not prepared to commend its omission—the case is redressed in four days, the drain left out and then not redressed for six days unless the dressings become loose. After this a very simple dressing suffices and the patient gets about, going home in two or three days more. In private practice this period of confinement to bed would hardly be less than a fortnight and to the house another week.

A direct examination of the cases reported shows that six were fatal, and of these all but one had a fracture of the base, and this exception had an extensive fracture with considerable loss of bone substance (a loss increased by the use of the trephine) followed by a large hernia cerebri. My own fatal case was *in extremis* when admitted. In none of the cases did the operation for relief of the depression have any relation to the fatal termination, and in a fair number of the favorable cases serious danger or death was inevitable without an operation.

The trephine was only used in Cases X., an impacted foreign body, XV., for no reason apparently, XXIII., a linear fracture with suspected blood-clot and compression, and XL., where probably a conoidal piece had been driven in by an ice-pick; but in Cases VIII. and XVIII. the chisel was sufficient; indeed, it is but right to protest here again against the use of the trephine for depression, unless it is impossible to elevate with the chisel and elevator.

In fifteen cases the symptoms were noted as being absent, and it is not unlikely that such was true of several others. In Case XXXIII. the symptoms of compression were present, but no compression was found. The ages varied from two and one half to fifty-seven years.

Anæsthesia was not used in six cases; cocaine was used in one case and ether was used in the remainder.

Resumé. *Fatal Cases.*—Operator, Harris. Case VII., aged twenty-one. Fracture base. Fell four stories. Probable laceration brain. Large piece of bone removed.

Operator, Stimson. Case XIV., aged twenty. Fracture base.

Operator, Wilkin. Case XV., aged twenty. Extensive fracture and loss of bone substance; hernia cerebri.

Operator, Cole. Case XIX., aged fifty-seven. Fracture base; laceration brain; intra-cranial hemorrhage; rapidly fatal.

Operator, Crofton. Case XXIX., aged twenty-eight. Fracture base.

Operator, Manning. Case XXXIX., aged forty-eight. Probably fractured into base and compressed by blood-clot.

Trephine.—Operator, Stimson. Case X., aged fifty. Impacted foreign body.

Operator, Wilkin. Case XV., aged twenty. Extensive depression; but could have been relieved by chisel elevator with less loss of bone.

Operator, Hancock. Case XXXIII. Linear fracture; supposed clot; none found.

Operator, Manning. Case XL., aged twenty-four. Probably conoidal piece depressed; but compare VIII. and XVIII., where the chisel was efficient.

Symptoms.—Noted as entirely absent in fifteen cases,

thirty-seven and one-half per cent. Present but no compression found in one case (XXXIII.).

Operators, Kimball, I.; Harris, II., III., IV., V., VI., VII., VIII.; Southworth, IX.; Stimson, X., XI., XIV.; Harvey, XII., XIII., XXI.; Wilkin, XV.; Cole, XVI., XVII., XVIII., XIX., XX., XXI., XXII., XXXII.; Hancock, XXIII., XXIV., XXXIII.; Wells, XXV., XXVI., XXVII., XXVIII.; Crofton, XXIX., XXXIV., XXXV.; Proctor, XXX.; Van Rensselaer, XXXVI., XXXVII., XXXVIII.; Manning, XXXIX., XV.

The fact that the same general result obtained for thirteen operators would indicate the general applicability of the practice. Of the whole number, if we exclude of the fatal cases those inevitably so under any form of treatment, we have a single fatal case (XV.), and it is hardly fair to say that this was the result of the operation, though it would certainly have been much more rapidly so without operation. On the other hand, of the thirty-four remaining cases, at least one-fourth would in all probability have proved fatal without operative measures, and one half, if not a much larger proportion, would have been followed by disastrous secondary troubles.

Of the cases reported, all but one were depressed, and in this case the symptoms of compression were present.

I have purposely omitted the linear fractures without depression, in which our rule was to explore and then treat as a simple scalp wound; of these, not a single one gave any after trouble. Likewise, I have not reported the suicidal penetrating pistol-shot wounds of the vault, every one of which has proved rapidly fatal, with or without operative measures.

If I have demonstrated the value of an immediate and accurate determination, by an incision, if necessary, of the variety and extent of the lesion in injuries to the vault of the cranium; of the necessity for their immediate relief by the use of the chisel and elevator; of the facility of the steps and of the easy technique of such procedures, I shall, at least, hope that my efforts have not been misspent.

Depressed Fractures of the Skull From August 23, 1888 to January 1, 1892.—Case I.—Operator, Kimball. Josephine D——, aged eight. Admitted August 23, 1888. Lacerated wound three fourths inch long, just below right parietal eminence. Triangular piece depressed; size finger-nail. No symptoms. Operation, August 24th.—Ether. Depressed bone, one-fourth inch, removed. Chisel. Several small pieces removed. Interrupted sutures Catgut drain. September 2d.—Redressed; drain removed. September 13th.—Cured.

Case II.—Operator, Harris. Richard O'M——, aged thirty; married; Ireland; longshoreman. Admitted October 5, 1888. Struck with iron in right parietal frontal region. Semi conscious, slight but increasing paralysis left arm, and convulsive movements left side of face; speech thick and indistinct. Respiration, pupils, pulse, normal. Ether. Depression nearly one inch; four pieces bone, pyramidal. Depressed area bounded anteriorly by coronal suture; inferiorly, one-fourth inch above parietal suture. Lower border, two and one half inches; superior border convex and parallel to temporal ridge and at highest point one-half inch above. Curves backward and downward and joins lower line at a point about two and one-half inches above, and one and one-half inch posteriorly to, external auditory meatus. Distance between inside points of superior and inferior borders is about two and three-fourths inches. Rongeur; inner table more extensively fractured than outer; small pieces of bones removed; rubber drain. Iodoform and bichloride dressing. Pulse quick and strong. Respiration bad. October 9th.—Redressed; drain removed. October 16th.—Redressed. October 20th.—Put in small drain. October 28th.—Drain removed. November 5th.—Cured.

Case III.—Operator, Harris. Patrick McA——, aged twenty-five; single; 'longshoreman. Admitted October 27, 1888. Walked in. Struck with water pitcher night before. Lacerated wound about one inch front of fronto parietal suture, two inches to left median line. Depression one-fourth inch. Operation, ether (after twelve hours); washed, shaved, etc.; chisel; elevator. Dura uninjured; small pieces removed; rest elevated; rubber drain. October 29th.—Tube removed; horsehair inserted. November 4th.—Redressed; drain shortened. November 8th.—Drain shortened. November 9th.—Drain removed. November 10th.—Cured.

Case IV.—Operator, Harris. John S——, aged thirty-four; single; Ireland; 'longshoreman. Walked in to Dispensary November 21, 1888. Struck by block one and a half hour before. Lacerated wound in anterior superior parietal region. Circular depressed fracture, cone-shaped. Operation: No anæsthesia; chisel, rongeur, elevator. Loose and depressed fragments removed; dura uninjured; catgut drain. November 23d.—Redressed. November 30th.—Drain removed. December 3d.—Cured.

Case V.—Operator, Harris. Cornelius G——, aged forty-two; single; Germany; clerk. Admitted November 27, 1888. Brought in; fell down stone steps; small lacerated wound on post-inferior part of right parietal bone. November 28th, ether. Elliptical depression one and one-half inches; anterior part one inch deep; chisel, elevator; and large piece of bone of outer table removed. Diploë bled extensively; internal table removed over corresponding area; dura uninjured; rubber tube; periosteum and scalp separately sutured. November 30th.—Redressed; removed tube. December 3d.—Redressed. December 8th.—Cured.

Case VI.—Operator, Harris. Nicholas P——, aged twenty six; single; Italy. Admitted January 2, 1889. Shot with 38 calibre pistol, one inch above orbital, one and three quarter inch from median line; second wound one and a half inch further up. Operation: Cocaine. Piece one inch long, three-quarters inch at base, removed; dura lacerated; silk sutures: considerable hemorrhage; compression. January 5th.—Redressed; rubber drain down to dura. January 10th.—Redressed; drain removed. January 18th.—Discharged, cured.

Case VII.—Operator, Harris. Harry T——, aged twenty-one; single; United States; painter. Brought in January 18, 1889, 6.25 P.M. Fell four stories through elevator shaft. Hæmatoma over posterior portion of right parietal region. Superficial scalp wound. No fracture can be made out; perfectly conscious. Head shaved and dressed bichloride. May 9th, 10 A.M.—Patient slightly delirious, but pupils are regular, of normal size. 3 P.M., exploratory incision because of the delirium recurring at intervals; cocaine. Large area depressed bone involving post-superior part of right parietal bone, extending one-half inch beyond suture on left; below bounded by lambdoidal suture two and one-half inches long vertically. Two pieces, the upper one inch square, loose, and removed, lower one elevated and left. Thick clot between skull and dura. Deep parts affixed with catgut, and another line used for scalp; rubber drain. January 19th.—Plaster Paris bandages to keep on dressings at night because of delirium. January 20th.—Noisy and delirious, and on January 23d, at 4.20 A.M., died after violent delirium.

Necropsy.—Fracture continued into base was depressed one-fourth inch, and there was an effusion of blood externally.

Case VIII.—Operator, Harris. James M——, aged twenty, single; United States; clerk. Admitted March 19, 1889. Injured February 18, 1889. Conical, one-half inch depressed fracture; one and a half inch in diameter. Post-superior part left parietal bone near longitudinal sinus. Ether; chisel. Dura uninjured; gauze drain; pieces removed. March 25th.—Redressed; considerable pus; no infection. March 29th.—Redressed. April 2d.—Went home to return every two or three days. May 4th.—Well.

Case IX.—Operator, Southworth. John S——, aged forty-five; single; Ireland; steamboatman. Admitted April 15, 1889, 12.15 A.M. Walked in. No anæsthesia.

Supra-orbital arch depressed; small fragment removed. April 16th.—Temperature, 101.5° F.; no chill. April 17th.—Well defined erysipelas. April 18th.—Sent to Bellevue.

Case X.—Operator, Stimson. John S——, aged fifty; widower; United States; watchman. Admitted April 17, 1889. Injured April 11, 1889. Fell striking on end of paint brush; ambulance. Punctured wound, one-fourth inch in diameter above superior curved line of occiput, three-quarters inch to right of median line. Ether; wound plugged by wood; trephine (wood five eighths inch long, five sixteenths diameter). April 18th.—Complete paralysis left arm; partial aphasia. April 23rd.—Wound situated five and one-half inches behind bregma; one and three-fourths inches above exterior occipital protuberance; one and one-half inches right median line. May 29th.—Transferred to New York Hospital; improved.

Case XI.—Operator, Stimson. Celia M——, aged six; United States. Admitted July 14, 1889. Comminuted depressed fracture, lacerated membranes and protrusion brain; coma; left side paralysis. No anæsthesia; chisel; sutures at either end; centre packed gauze. July 22d.—Wound gapes; some hernia cerebri; pressure. July 23d.—Fungus cerebri scraped away; suture over it. July 31st.—Temperature, 103° F. August 1st.—Dressings removed; no pus found. August 23d.—Fungus almost gone; wound granulating. September 8th.—Has been dressed twice a week. Discharged; cured.

Case XII.—Operator, Harvey. Lizzie M——, aged five; Italy. Admitted July 23, 1889. Depressed fracture; ether; chisel; elevator; drainage-tubes; sutures. July 27th.—Primary union; tubes shortened. July 30th.—Tubes removed. August 3d.—Wound healed. Patient discharged.

Case XIII.—Operator, Harvey. Lazarus B——, aged four; England. Admitted August 6, 1889. Depressed fracture; ether; incision; chisel; elevator; sutures; drain. August 13th.—Primary union throughout. August 23d.—Discharged; cured.

Case XIV.—Operator, Stimson. George E——, aged twenty. Admitted August 21.—Comminuted depressed fracture with fracture base; ether; chisel; elevator; etc. August 22d.—Very restless. Temperature, 102° F; pulse, 120. 23d.—Died 3.05 A.M.

Case XV.—Operator, Wilkin. William F——, aged 20. Admitted September 6, 1892. Comminuted, depressed fracture (extensive); lacerated dura; ether; trephine; elevator. September 9th.—Purulent discharge. September 13th.—Hernia cerebri. September 15th.—Abscess beneath dura; incised and drained. September 16th.—Large hernia cerebri. September 18th.—Hernia degenerating. September 28th.—Applied nitric acid and straps for pressure. October 3d.—Rubber ligature to hernia. October 6th.—Hernia reduced; silk sutures to wound. October 8th.—Patient apathetic; Temperature, 104° F; sutures removed. October 11th.—Abscess in brain tissue opened; unconscious. October 12th—Died 8 A.M.

Case XVI.—Operator, Cole. James H——, aged twenty-four. Admitted January 25, 1890. Compound, depressed fracture; ether; chisel; elevator; drain-tubes. January 26th.—Facial neuralgia opposite side. January 31st.—Redressed; tubes removed. February 5th.—Discharged; cured.

Case XVII.—Operator, Cole. James T——, aged thirty-nine. Admitted February 10, 1890. No anæsthesia; chisel; elevator; tubes. February 15th.—Redressed; immediate union; tube shortened. February 17th.—Tube removed. February 20th.—Cured.

Case XVIII.—Operator, Cole. Thomas F——, aged thirty-nine. Admitted February 16, 1890. Comminuted, depressed fracture; phthisis pulmonalis. Operation February 17th.—Ether; chisel; thumb forceps and tenaculum. Conoidal piece removed; excessive hemorrhage (sinus); open dressing (packed). February 18th.—Hemorrhage arrested; catgut sutures; tube drain. February 22d.—Tube removed. February 25th.—Suture at site of tube. March 24th.—Small sliver bone removed. April 24th.—Still exfoliating slightly. May 24th.—About well.

Case XIX.—Operator, Cole. John McG——, aged fifty-seven. Comminuted depressed fracture; fracture base; lacerated brain, intracranial hemorrhage. No anæsthesia; patient *in extremis;* died in an hour or so.

Case XX.—Operator, Cole. Michael G——, aged ten. Depressed fracture, March 25, 1890. Ether; incision; chisel; elevation; drainage. April 20th.—Discharged; cured.

Case XXI.—Operator, Cole. John C——, aged eighteen. Admitted May 3, 1890. Compound comminuted depressed fracture skull; ether; chisel; removal detached bone; drain. May 16th.—Discharged; cured.

Case XXII.—Operator, Cole. Norah K——, aged five. Admitted May 18, 1890. Operation May 19th.—Ether; compound comminuted depressed fracture; chisel; elevator. May 25th—Drain removed. May 27th.—Redressed. May 30th.—Cured.

Case XXIII.—Operator, Hancock. Henry W——, aged four. Admitted June 8, 1890. Ether; chisel; elevator; redressed every four days. June 20th.—Discharged; cured.

Case XXIV.—Operator, Hancock. Hugh F——, aged fifty-two. Admitted July 21, 1890. Compound depressed fracture; ether; elevation; drain. Discharged; cured, August 11, 1890.

Case XXV.—Operator, Wells. August O——, aged forty-six. Admitted August 17, 1890. Compound depressed fracture; ether; elevation; drain. Redressed every two or three days. Discharged; cured.

Case XXVI.—Operator, Wells. James Y——. Admitted August 17, 1890. Compound depressed fracture; laceration dura and brain; ether; chisel; elevation; removal of bone. Cured.

Case XXVII.—Operator, Wells. Joseph P——, aged thirteen. Admitted October 15, 1890. Compound comminuted depressed fracture; punctured; ether; elevation and removal depressed bone. October 29th.—Discharged; cured.

Case XXVIII.—Operator, Wells. Herbert H——, aged fourteen. Admitted October 16, 1890. Compound depressed (punctured) and not impacted; three hours; ether; removal bone; drainage fracture. October 30th.—Discharged; cured.

Case XXIX.—Operator, Crofton. Andrew P——, aged twenty-eight. Admitted November 27, 1890. Died same night. Compound depressed fracture and fracture base; elevation and drainage; ether.

Case XXX.—Operator, Proctor. David A——, aged two and a half. Admitted July 7, 1889. Compound depressed fracture. Patient vomited, was drowsy, etc.; ether; operation sixteen hours later. Line of fracture forward and upward from posterior inferior angle of right parietal bone; trephine; incision; chisel; elevation; abundant hæmorrhage; iodoform gauze packing. July 11th.—Redressed. August 9th.—Discharged; cured.

Case XXXI.—Operator, Harvey. William H——, aged thirty-two. Admitted September 10, 1889. Kicked by horse; perfectly conscious; compound depressed bone one and a half by one-half inch over right parietal bone. Operation seven hours later. Ether; incision; chisel; small piece bone removed; catgut sutures; tube. September 4th.—Redressed. October 14th.—Discharged; cured.

Case XXXII.—Operator, Cole. James D——, aged fifteen. May 13, 1890. Struck by iron shutter that had fallen four stories. Conscious. Compound comminuted depressed fracture skull, one inch above the middle of the supra-orbital ridge. Loose fragments removed; no anæsthesia; gauze drain; catgut sutures. Sent to New York Hospital.

Case XXXIII.—Operator, Hancock. Charles S——,

admitted June 9, 1890. Fell fifteen feet; comatose; paralysis right side body; chronic convulsions left side of face and body; linear fracture about lambdoidal suture. No depression; trephine; no clot, and no hemorrhage. June 23d.—Discharged; cured.

Case XXXIV.—Operator, Crofton. Bernard A——, aged thirty. Admitted April 1, 1891. Compound depressed fracture. Considerable shock from fall of thirty-five feet; conscious; ether (three hours later); incision; chisel; elevator. April 4th.—Redressed. April 20th.—Cured.

Case XXXV. Operator, Crofton. Gussie M——, aged five. Admitted April 14, 1891, 7:30 P.M. Came in. Absolutely no symptoms; lacerated wound and depressed fracture. Ether; chisel; elevator. April 24th.—Redressed first time. April 29th.—Discharged; cured Small pieces bone removed; inner table hard to elevate; no drainage; sterilized milk.

Case XXXVI.—Operator, Van Rensselaer. Reuquall S——, aged seven. Admitted June 20th, 1891, 10 P.M. Fell two stories. Depressed fracture; conscious and talkative; large hæmatoma frontus; unconscious during night. Ether; incision; chisel; elevator; removal elevated particle inner table; catgut and gauze drain. July 5th.—Cured.

Case XXXVII. Operator, Van Rennselaer. Miller B——, aged thirty-two. Admitted August 22, 1891. Collapsed building, 74 Park place. Conscious. Compound depressed fracture. Ether; incision; chisel; small fragments removed; elevator; iodoform gauze; silk sutures. September 3d.—Practically cured.

Case XXXVIII.—Operator, Van Rensselaer. Joseph P——, aged twenty-four. Admitted August 27, 1891. Struck by shovel. Compound depressed fracture; semi-comatose. Ether; incision; chisel; elevator; profuse hemorrhage; iodoform gauze drain. September 5th.—Redressed. September 8th.—Discharged; cured, practically.

Case XXXIX.—Operator, Manning.—John W——, aged forty eight. Admitted October 29, 1891. Compound depressed fracture of skull in temporal region. Ether; incision; chisel; elevator. Removal piece size ten-cent piece. Died 2:30 A.M., October 30, 1891.

Case XL.—Operator, Manning. Daniel S——, aged twenty four. Admitted December 2, 1891. Walked in. Struck by ice pick. Ether; trephine. Removal piece of bone; iodoform gauze packing. December 5th.—Redressed. December 8th.—Redressed, and thereafter every third day. December 18th.—Discharged; cured.

Mushroom Poisoning (the Coprinus Comatus).—Dr. Harvey B. Bashore writes: "As cases of mushroom poisoning have been recently reported in New York, I beg to offer the description of at least one fungus which is not poisonous, and which I have lately found in this vicinity—*i.e.*, the coprinus comatus or maned agaric. The description, somewhat modified, is that given by Dr. Taylor, of the United States Department of Agriculture: 'The cap is white, and at first cylindrical, two to four inches long and one to one and a half inches in diameter, and somewhat scaly; at the culmination of growth, the lower part of the cap expands and ultimately becomes bell-shaped, and the gills, which at first are white and then pink, finally turn black and soon melt into an inky fluid; on the stem, which is white and hollow, there is a ring, at first movable, later disappearing. This fungus grows in meadows, and should be gathered when the gills show a pink margin.' The coprinus comatus decays very rapidly, and for this reason is rarely seen in the markets; its nutrient value, however, is high, for it is said to contain twenty-five per cent. of proteids and two to three per cent. of fats; its characteristics are so marked and distinctive that an error hardly seems possible, and as it grows, in some instances at least, in the greatest abundance, it is a valuable addition to our food supply."

BLOODLESS AMPUTATION AT THE HIP-JOINT BY AN OLD METHOD.[1]

By W. H. BUECHNER, M.D.,

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Amputation at the hip joint has long been recognized as the greatest traumatic encroachment which the human organism can withstand. Under the improved methods of to-day the mortality is about fifty five or sixty per cent., while in days gone by it was estimated at from seventy to ninety per cent.

The fact that almost fifty methods of performing this operation have been devised would seem to indicate that no one of them was satisfactory, and the eagerness with which the methods of Wyeth and Senn have been taken up by the profession, gives additional testimony in this direction. This, however, I do not consider the case. It is a repetition of the old story of vaginal specula and obstetrical forceps. Everyone makes some modification and calls it by his own name.

In our haste to adopt the new methods of Wyeth and Senn we have completely lost sight of the old ones, of which they are simply slight modifications. I refer to the method of Volkmann, Esmarch, or Jordan (as it is variously named) and to that of Trendelenburg.

The Volkmann operation, of which Wyeth's is a modification, is performed as follows: The leg is rendered blood-empty by elevation or elastic compression and an Esmarch tourniquet is applied as close to Poupart's ligament as possible. Slipping of the tourniquet may be prevented by applying it over two or three short pieces of bandage, which are then held by an assistant. A simple amputation of the thigh is made by the circular or mixed method, at a point indicated by the condition of the soft parts. After the vessels have been secured, as in an ordinary thigh amputation, the tourniquet is removed. When all hemorrhage has been checked, an incision, similar to Langenbeck's incision for resection of the hip, is made from a point two inches above the great trochanter along the shaft of the femur to the amputation wound. If the mixed method of amputation has been employed, this incision should meet the amputation wound at the external angle of the flaps. The hemorrhage from this incision, which should divide all structures down to the bone, is very slight. The few small vessels which spring are readily controlled by pressure forceps. After this has been done the bone is seized with lion jawed forceps, disarticulated, and dissected out. This dissection is best done by means of blunt instruments assisted by the knife where necessary, the instruments being kept in contact with the bone. If thought advisable the bone may be removed subperiostially. The hemorrhage following this stage of the operation is practically nothing. The operation thus performed is almost as simple as an ordinary thigh amputation.

June 28th.—I had occasion to amputate at the hip-joint in a case of osteo-myelitis of the femur. I employed the above method with the most eminent satisfaction. My patient, a man thirty-eight years old, was very much emaciated and reduced in strength, he dared not lose much blood, neither did he. The operation was as bloodless as any amputation could be. The case made an uninterrupted recovery and was discharged in seven weeks.

As may be seen, Wyeth's method is remarkably like this one which has been in use for years. Wyeth employs two pins to prevent the slipping of the Esmarch tube—an unnecessary precaution in the majority of cases—and does not make the longitudinal incision which greatly facilitates disarticulation and the subsequent removal of the bone. Wyeth, however, is not the first to employ the latter modification. Koenig speaks of it in his work on surgery, but prefers the longitudinal incision, as it affords better drainage, and without it the skin covering the great trochanter is left very thin after the

[1] Read before the Mahoning County Medical Society, November 22, 1893.

enucleation of the bone. With these slight differences the old operation of Volkmann and the new one of Wyeth are identical.

I speak of this as Volkmann's method because the German authorities ascribe it to him. In England it is known as Furneaux Jordan's. It is not his. On page 303 of the second edition of "Surgical Enquiries," Jordan himself says "First enucleate the bone, then cut through the limb at any desired spot." The difference between this and preliminary amputation will readily be seen.

Senn's method bears a striking similarity to one devised by Trendelenburg, and published several years ago. They are identical in principle and the difference in their execution is slight indeed. Trendelenburg begins with a typical Langenbeck resection—removing the head and neck of the femur to gain room. From the resection wound he bores through to the inner side of the thigh with two blunt steel pins, over these pins he runs a figure of eight with rubber tubing; including between one pin and the tubing the tissue which will form the anterior flap, and between the other pin and tube the posterior flap.

Senn makes a typical resection cut but does not remove the head and neck of the bone. Instead of the steel pins he draws a piece of rubber tubing through the thigh, tying it anteriorly and posteriorly as well as taking one turn of it around the entire circumference of the limb. The subsequent steps of Trendelenburg's and Senn's operations are alike.

There is certainly enough similarity between the old operations of Volkmann and Trendelenburg and the new ones of Wyeth and Senn to designate the latter as modifications of already known methods rather than as new operations.

Progress of Medical Science.

Vagino-fixation of the Uterus.—Dr. Mackenrodt refers to the fact that Winter recently reported fourteen cases of vagino fixation performed according to his (Mackenrodt's) method, all of which were unsuccessful, and attributes the bad result to wrong technique. The writer insists upon the importance of the following steps: A median incision is first made in the anterior vaginal wall, extending from the portio to the most prominent part of the urethro-vaginal septum, and the flaps are dissected off laterally. The cervix is then grasped with the bullet forceps and is drawn forcibly downward, while the urethral prominence is drawn upward. The bladder is dissected away from the uterus as high as the vesico uterine fold of peritoneum. The vaginal flaps are now held apart, and a curved transverse incision is made in the vesico-vaginal septum at the lower angle of the wound. A sound is passed into the uterus, and the organ is anteverted, the peritoneum being stripped from the fundus of the bladder sufficiently. The raw surface on the protruding portion of the bladder is now closed with a continuous suture, not only to check oozing and to prevent the formation of a pocket between the uterus, vagina, and bladder, but to approximate the point of fixation of the fundus uteri to the symphysis. If prolapsus exists, the vagina is narrowed by excising the flaps made, and suturing. The final step in the operation consists in fixing the fundus uteri by passing two silk sutures first through the outer edges of the vaginal wound just below the urethral prominence, then into the corpus uteri as high up as possible, and the vesico-uterine pouch, then downward across the vaginal wound so as to emerge at a point an inch lower on the opposite side. The sutures being tied form a cross. The remainder of the vaginal wound is then closed with catgut sutures, and is at the same time united to the cervix. The silk sutures are left *in situ* from six to eight weeks. The fixation of the uterus is obtained through union of the opposed folds of the vesico-uterine pouch. Slight flexion of the uterus is maintained by the crossing of the sutures. If the cervix is very long, it is amputated.

The writer has performed this operation thirty-one times; thirteen cases were entirely successful, three women subsequently becoming pregnant, one twice. Six women in all afterward became pregnant; three were delivered spontaneously and one with forceps, the uterus remaining in the former position after involution had taken place.

Dührssen, in a lengthy paper, discusses Mackenrodt's operation, which, he says, is essentially the same as the one previously described by himself, with the exception of the first step—splitting the anterior vaginal wall—which is superfluous, as well as suturing the lower portion of the bladder and attaching the vaginal flaps to the cervix. Moreover, there is the risk not only of wounding the bladder and causing a fistula, or of actually contracting the viscus, but of forming a dangerous pocket between the bladder and the vagina. In his own operation (which can be completed in from ten to fifteen minutes) the writer simply opens the anterior fornix, pushes the bladder toward the symphysis with catheter and forefinger, while the cervix uteri is drawn downward and backward, and by means of temporary sutures gradually draws down the uterus until permanent sutures can be passed through the vesico-uterine pouch and fundus. The patient need be kept in bed only a week. This operation he has performed forty times with perfect success.

Steinbüchel reports four cases of vagino fixation, performed according to Mackenrodt's method, the results of which were quite satisfactory. The operation was modified by prolonging the median vaginal incision downward, and making an oval denudation when the vagina was much relaxed. Moreover, the peritoneum was dissected away from the fundus as far as possible, so that the sutures could be passed into it higher up. When these were fastened to the lower edges of the vaginal wound, prolapse of the bladder was prevented, and the uterus was firmly fixed in the desired position. Additional sutures were then passed through the uterus, thus bringing the anterior raw surface of the organ more directly in contact with the vaginal wound than in the original operation.—*The American Journal of the Medical Sciences.*

Nervous Lesions in Diphtheria.—Dr. Stscherbak has published an account of some experimental researches which have been carried out in Professor Strauss's laboratory. A summary of this paper is given by Dr. Rosenbach. The animals experimented upon were rabbits and guinea-pigs, and they were inoculated with diphtheritic bouillon cultures or the filtrate of these. Many alterations were found in the nervous system of such animals after the inoculation, such as hemorrhages in the spinal meninges and in the gray matter of the cord, acute inflammation of the latter, degenerative changes in the spinal roots, neuritis of peripheral nerves, and changes in the muscles, both parenchymatous and interstitial. Similar changes have been described by various observers as occurring in patients who have died from diphtheria, and Dr. Stscherbak's researches would seem to indicate that they are a direct result of the disease. Besides showing the correspondence between the conditions observed in man and those produced by inoculation in animals, however, these experiments indicate also the cause of diphtheritic paralysis as essentially consisting in inflammation of the peripheral nerves, the other changes in the nervous system being of subordinate importance and significance. In all the cases in which paralysis followed the inoculation in these animals neuritic changes in the peripheral nerves were found. The intensity and extent of the neuritis corresponded generally with the degree and locality of the paralysis. The fibres of the peripheral nerves going to muscles were mostly affected. The neuritic processes were found to be independent of changes in the spinal cord and the latter were present in cases in which there was no paralysis.—*Neurologisches Centralblatt.*

Clinical Department.

DRUGS AND "HEART FAILURE."

By CHARLES E. PAGE, M.D.,
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An important editorial in the *Boston Globe* not long ago, in commenting on the action of the Philadelphia Board of Health in refusing longer to accept "heart failure" as the cause of any death, undertakes to expose the ignorance on the part of medical men which has brought this term into common use.

Whatever may have been the motive of this action on the part of the Board of Health, whether it were the belief that many of these fatalities result from drug poisoning, or simply to encourage greater care in describing the remote causes of death, it is the writer's belief, based on many years' observation in active practise, that fatalities are constantly occurring as the direct and natural effect of so-called medicinal doses of virulent poisons. To weak and exhausted patients the smallest dose may prove as inimical to life as the heaviest amounts administered for homicidal purposes.

Whether or no there be the slightest ground for this opinion, what must we think of preaching and practise like the following, in which, despite the confession that the patients "died cured," the impression is sought to be made that the treatment probably prolonged the lives that went out so suddenly shortly thereafter?

A physician prominent enough in the medical world to be imported from Philadelphia to give a course of lectures before the Harvard Medical School Association related the story of two brilliant cures of a certain form of heart disease under his treatment when he was a young man, by "enormous doses" of digitalis. Both patients had been taking ten-drop doses, and he increased the dose to forty drops.

"The triumph seemed complete," said the lecturer, "and so it was for weeks; but mark the ultimate result. Mary, one morning, as she trod the doorway of the market-house, fell dead upon the threshold. The banker, stretching his arm across the desk that had been to him the pathway to riches and power, fell hushed and powerless into the eternal silence."

Here was the point, as it seemed to me and, I trust, to others who listened to his address, for the speaker to warn in the most emphatic manner possible against such brutal treatment, or to make his bow and allow his hearers to draw their own moral. But, so far from doing this, the lecturer expressed the belief that it was the forty-drop doses in place of the ten-drop doses that eked out poor Mary's life a few weeks, and that the banker also would have died sooner but for the same enormous doses of one of our most deadly poisons!

The writer has had the after-management of quite a number of "digitalis hearts," but he has never sought to remedy the evil in any case by increasing the dose of digitalis. On the contrary, he has always stopped the use of the drug short off, and has never had occasion to regret such action. I can see no difference between increasing the dose of digitalis from ten drops to forty in treating a digitalis heart, and ordering a man with a "tobacco heart" to smoke twelve heavy cigars in place of the three he is already taking.

Personally, I have for the past thirty-five years been cultivating a tobacco heart, with occasional lapses from vice to virtue, during which I would always improve in various ways. After smoking several cigars a day for months my system gets pretty thoroughly saturated with the drug and I feel the necessity of complete abstinence, and, as I have remarked, I always find relief therefrom; but whenever I have at such times gone to the other extreme, smoking, say eight or ten cigars in an evening, as on a club night, I have observed most excellent effects for the time being from the increased dose, like unto those chronicled above from the lecture on digitalis. The next morning, however, always told a different story.

Doubtless every old smoker will be able to recall similar experiences, although he may have learned a false lesson therefrom, as did the professor from his observations with digitalis. Certainly no bed-rock student of the laws of life but must feel a cold chill along the spine at the thought of the effect of such teaching on the minds of the tyros who listened. Years of experience will teach the rare few among them better things, but these will have in after years many painful recollections; while the great proportion of pupils are likely to continue and end about as they began.

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TREATMENT OF DIPHTHERIA BY EUCALYPTUS.

By LEONARD LANDES, M.D.,
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In my investigations of the subject of diphtheria I extended my inquiries to various countries of the Old World, as well as this, and through the kindness of Mr. E. C. Little, General Consular Agent for the United States of America at Cairo, Egypt, I received a communication from Dr. A. Murison, a Scotch physician practising in Cairo and official physician to the American Consulate there; and, among other statements regarding diphtheria in that part of the world, Dr. Murison says that in the treatment of the disease bichloride of mercury is the general remedy, and the general result is death. Dr. Murison followed that treatment for some time, with the result stated, until he saw that a Russian doctor advocated the use of eucalyptus oil, and he used that remedy in the last ten or twelve cases that he treated, with the most happy results. He recommended it to his friends, who also used it successfully, not losing a single patient.

His method is to take one part of eucalyptus oil and three parts of almond oil, giving one teaspoonful of the mixture every hour. Before the mixture is given a gargle of pure oil is used if the child is old enough, and if not a spray instead, and both, if it can be managed; also saturating the shirt and pillow of the patient with pure oil. and placing plates filled with the oil about the room. The ordinary rules of attending to the bowels, giving as much food as possible, securing plenty of pure air by open doors and windows, and maintaining cheerful surroundings, are to be observed. If signs of intoxication appear, reduce the dose to one-fourth the quantity.

I have suggested the above treatment to a few of my friends, who promise to try it, as I shall myself when opportunity presents itself; and I would recommend the medical profession to give it a trial: and I would be obliged to those who do so if they will let me know the result, as I am preparing a paper on the subject.

I have also received a communication from Dr. George Helstron, chief physician of the Epidemic Hospital at Stockholm, Sweden, for the year 1893, in which he says: "Our treatment is founded on the supposition of diphtheria being a local disease, with the production and absorption of toxical substances from the infected quarter; therefore at the Epidemic Hospital of Stockholm the galvano-cautery has been used for destroying the membrane." The treatment brought good results, and Dr. Helstron recommends me to give it a trial when suitable occasion offers.

Stitching the Bladder in Supra-pubic Lithotomy.—Close the lower third of the wound with No. 1 catgut, the stitches not entering the mucous coat; then place two tubes in the bladder, and suture the upper part of the wound. Iodoform gauze is tucked in between the tubes and the pubis. By the fifth or sixth day the tubes are removed, and the urine drawn off by catheter for a few days; but even though it should flow through the wound, it does not delay healing.—GUYON.

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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THE DANGERS OF CHLORAL.

THE unfortunate death of Professor Tyndall through an overdose of chloral has excited wide interest and regret. Professor Tyndall was in rather poor health and suffered from insomnia. He was accustomed to take a dose of chloral at night, and a solution of sulphate of magnesia in the morning. By mistake his wife administered the chloral solution instead of that of the salts.

When chloral was first introduced it was by far the best hypnotic which we possessed. It was very extensively used in consequence, and very soon reports of its occasional dangerous character began to come in. The profession learned to look upon it with some suspicion, and of late years one rarely hears of fatal results from its use.

A few cases have been reported of death being caused by a dose of about thirty grains. A dose of three grains has been fatal to a child one year of age. In many instances doses of fifty-five, sixty, and eighty grains have produced alarming symptoms. Old people are said not to bear it so well as adults, while children bear it better; and Bouchut considers doses of fifteen to twenty-three grains safe for children of from one to three years of age. Death has occurred from a dose of forty-five grains given to a child of five years.

Chloral is very often prescribed in doses of thirty and forty grains, and the danger from such doses is practically very slight in adults not debilitated by some disease. Any dose below thirty grains may be considered absolutely safe to an adult.

The amount which may sometimes be taken with impunity is very large. A case is reported (Blyth) in which a patient recovered from a dose of one ounce. A medical man, Dr. Maujot, took three drachms without any serious result.

In chloral poisoning much can be done by prompt treatment. After evacuating the contents of the stomach, strong coffee and strychnia should be given, the patient should then be wrapped in blankets and hot bottles placed about him. The temperature of the room should be raised. Lauder Brunton found that by poisoning animals with chloral, then wrapping them up and keeping them in a warm chamber, they survived doses ordinarily lethal.

Lupus.—Continuous compresses of five per cent. iodoform in cod-liver oil.—CHOUT.

LONG-CONTINUED FEVERS IN THE SOUTH.

No clinical question is of greater interest to the profession in the Southern States than that of the etiology of some of the long-continued fevers with which they have to do. Heretofore many, if not most, of the latter have been classified under the term "malarial," but the progressive men of that section are beginning to trace more carefully the peculiarities of this class of maladies, and to untangle the web of typhoid and typho-malarial manifestations which has hitherto been so complex.

Many of the older practitioners of the Gulf States have been disinclined to admit the occurrence in those regions of plain, uncomplicated typhoid fever. That it does show itself there can be no longer doubted. Probably many of the so-called typho-malarias are really simple typhoid modified perhaps by climatic influences. In a recent discussion of this subject before the Orleans Parish Medical Society, Dr. Martin read a paper on this topic, in which he describes a fever which he considers to be quite different from either of these two forms. It is usually ushered in without any premonitory symptoms. The patient usually complains of feeling dull; the tongue may or may not be coated; the bowels costive; loss of appetite; sometimes nausea and slight elevation of temperature; seldom any functional disturbance. The temperature will vary from 99° to 103° F., and the fever will continue from three to nine weeks. Patients are not greatly exhausted by the fever, and are sometimes able to keep about their work. One case which he had under treatment, a robust person, was never compelled to lie down during the day, but spent the time in a large arm-chair. The fever lasted ten weeks. In this case, its long continuance was partly due to malnutrition. Nausea complicated the treatment, and the question of nutrition became a serious problem, until he had recourse to raw eggs and sherry; this constituted the nourishment during the day, the patient taking as many as half a dozen eggs in twelve hours. At night he gave mulled milk, which proved a soothing and nutritious beverage. Through the entire course of the illness he was at a loss to detect any one symptom sufficiently marked to point to a diagnosis. If malarial, it was not typical in appearance. A careful examination of all the organs revealed no focus for a possible sepsis. All medication proved useless. Quinine was inert, and antipyretics gave but temporary relief.

In the discussion which followed the reading of Dr. Martin's paper many interesting facts were brought out. The opinion was expressed that typhoid may be changing its type at the present time, for we know that the clinical picture of more than one disease may, and does, change from one decade to another, and even from year to year. Right here in New York typhoid fever varies much from autumn to autumn. Some years show diarrhœa as a prominent symptom, or hemorrhages, or high temperature. The next year may present altogether different features. Another speaker, who had seen much of the slow continued fever, remarked that it assumed a distinctly intermittent character, which was not, however, at all affected by quinine. Several thought it essentially malarial with an added septic element, as it flourished in unhygienic surroundings, seemed to be propagated by sewer-gas, and was more common among those who ate fruits purchased in the open market. The possibility of added sepsis seemed

borne out by the experience of one speaker, who had seen great good result from antiseptic intestinal irrigation. The absorption of gastro intestinal ptomaines was suggested as a point of departure for the origin of the symptom-complex.

Nearly all the gentlemen participating in the discussion had had fatal cases, but the autopsies had revealed no distinctive lesions. Some had the typical changes in the Peyer plaques, while others had not. Moreover, alterations in these plaques, indistinguishable, at least to the naked eye, from those of true typhoid fever, had been noted in measles and in other affections. So there was, from the standpoint of pathological anatomy, no criterion for diagnosis. No sufficiently careful examination had been made of the blood, either for the germ of Laveran or the bacillus of Eberth, to furnish any aid from the side of bacteriology.

We are sure that the careful attention which our Southern friends are giving to this subject will do much for medical knowledge, and it is an ungracious task for us, who live here in a region comparatively free from pure malaria, to make any criticism upon their efforts. At the same time the position which many Southern physicians take upon this question, particularly those who have always lived in the South, is largely one of reluctance to admit that typhoid fever, pure and simple, is an endemic disease in their respective localities. We, of the North, are surprised at nothing which may appear in the course of typhoid. It is a hydra-headed malady, so far at least as complications are concerned, and the groupings of symptoms which extend over the widest range. The disease is not predicated on mere severity, for many cases are mild; not upon mere duration, for we frequently have abortive forms which run their course in two weeks; not upon eruption or hemorrhages or diarrhœa, for these are frequently all absent. In fact, in many of the milder atypical cases the diagnosis must be made by exclusion. From all we can learn, we believe that true typhoid is more common in the Southern States than the local physicians seem willing to admit, and the seeming logic of their attitude is, to a certain extent, influenced by tradition.

It is to be hoped that the medical societies of that portion of our country will make careful studies of these slow continued fevers in the light of modern bacteriology. They have an ample supply of clinical material, and such studies, emanating from men of the professional standing of those from whom we have quoted, will be looked upon as of the highest scientific value.

THE DOCTOR'S PRESENTS.

Now is the time of year when grateful patients sometimes take the opportunity of showing to their physician their appreciation of the inadequacy of a check to compensate for the help they have received. It is a time, too, when poor patients, whom the doctor has attended gratuitously, sometimes proffer acknowledgment of their gratitude. There is no doubt that these evidences of thoughtfulness on the part of patients give great pleasure to the hard-working doctor who gets them. It is not the value or the crude utility of the gift that arouses the pleasantest feelings. It is much oftener the recognition, unexpected perhaps, that one's services were held at a higher than monetary value, and that they led to feelings of personal affection and esteem. The physician has this exceptional advantage over those of other callings, that in the course of his professional duties he has daily opportunities of doing work which is, in the truest sense of the word, benevolent. "Possibly," says a contemporary, "physicians form the most truly charitable section of the community, not on the strength of that rule of professional etiquette which requires any practitioner to treat a brother's family gratis, but because of the very great extension of this habit to persons of no professional connection, for no other reason than that of downright, straight-out kindness of heart. The medical profession is instinctively possessed of the sense that it holds to an unusual extent a trust for the benefit of humanity, and that scarcely any man can call on it in vain."

That physicians as a class do exercise this philanthropic sense cannot be denied, despite the occasional evidences of sordidness and extortion which are made public.

We are not writing this in praise of medical benevolence. Doctors are much like other people. But they have opportunities for charity which they do not slight, but use freely and generously. We may be permitted at this season to remind ourselves of this sunny side to professional morals. The world loves to show up the rifts and seams as often as it can.

A HOSPITAL CAR.

A NOVEL suggestion has been made in the city of St. Louis which, if it prove to be practicable, will revolutionize the transportation of the sick and injured in large cities. It is, in short, nothing less than the employment of cars running on the various street railway lines, for ambulances, the motive power being whatever the particular corporation whose lines are made use of employs. The car is to be fitted up as a first-class ambulance, and the equipment can, from the additional room gained over an ordinary vehicle, be made more complete than is possible in the latter. It is believed that transportation by this method will lessen the suffering of the patient, that time will be saved, and that the cost will, all things considered, be no greater than now obtains with the ordinary system.

The car is to be run on schedule time, according to the rules governing traffic on the various lines. The driver, motor-man, or grip-man, is to be employed by the company, who will furnish transportation on terms to be agreed upon, while the city or the institutions interested will supply the medical attendant.

In St. Louis the problem is somewhat simplified by the geographical features of the city, and the fact that, by the laying of a comparatively short length of new track all the institutions can be reached along one general route. The car is to start from a central point at fixed hours. This central point is to have a receiving station or dispensary. The police are to be acquainted with the time schedule, and could meet the car at convenient places. The car, as it follows its route, receives the patients and delivers them at the proper destination.

Of course, such a system cannot entirely do away with ambulances drawn by horses, which will be required for service in inaccessible localities at a distance from the car route.

Such in outline is the system proposed by our pro-

gressive Western friends. We are glad to have them make the trial, and will await its result with interest. If it prove successful it will mark a new epoch in the intramural transportation of the sick and injured.

Here in New York, with its multiplicity of surface lines and the various motive powers employed, such a plan would prove more difficult to follow: There is a generous rivalry among the ambulance hospitals to obtain as many "calls" as possible. This rivalry, quietly fostered by the managers, is exemplified by the conduct of the ambulance surgeons and drivers, who relish nothing better than a race to a point just on the border line of their own territory, where the ambulance from another institution has a common right. To get there first and secure the case is a glory approximating to that of making a "touch-down" on Manhattan field. To bowl along in a car, on a track behind the Fabian steps of an ordinary New York horse, would rob life of all its Alexandrian dreams.

Geographically, the problem is not so difficult in New York as might at first appear, for all our ambulance institutions are situated along east and west lines. On the East side are Gouverneur, St. Francis, Bellevue, Presbyterian, German, and Harlem Hospitals; while on the West we have Chambers Street, St. Vincent's, New York, Roosevelt, and Manhattan. It would not be possible to run a car on the lines of a single company on either side of the city, but we presume that the various routes to be utilized could be connected, so that the car could traverse them all.

In spite of occasional newspaper criticism, the ambulance system of New York is superb, and very well fulfils all requirements; yet, if the St. Louis plan demonstrates its own feasibility, we may be able to follow it with advantage both to the institutions and the public.

SHIP-OWNERS AND SHIPS' SURGEONS.

We have frequently commented upon the inadequacy of the medical service on many of the trans-Atlantic steamships, and the matter is again brought to our attention by the receipt of a small pamphlet by Charles Henry Leet, F.R.C.S., who exposes some of the glaring iniquities of a bad system. Mr. Leet is now engaged in a crusade to bring about the enactment by the English Parliament of certain measures which shall remedy existing abuses. He suggests the formation of an association of all medical officers of the merchant navy. Medical schools are to urge their alumni to petition for the passage of the new Shipping Bills, and particularly for the insertion of a clause which shall confer upon the ship's surgeon, powers analogous to those of a health officer on land, and further special powers for the protection of seamen. Ship owners are to be induced to support the clause in order that competent and seasoned ships' surgeons may be attracted. Seamen are to be encouraged to report insanitary conditions, etc., on shipboard.

All of these requests seem reasonable enough, but the present condition of the English merchant marine is, from a sanitary point of view, sadly in need of reform. Mr. Leet speaks keenly, for he has had experience with the White Star, Cunard, and other prominent lines to which he rendered able service, but from which he was discharged because he dared to speak the truth and would not submit to abuses. As he well points out, a doctor who protests against sanitary evils of any kind, to either owner or captain, is simply remonstrating with an evildoer on the error of his ways. He is their subordinate, and when he makes a complaint he casts an imputation on his own superior officer.

Under the proposed Shipping Bills it is hoped to make the surgeon a representative of the Maritime Board of Trade, to which he is directly responsible. He can then compel owners and captains to comply with all needful sanitary requirements, or else arraign them before the body mentioned.

It is a pleasure to learn that the recently established American line of steamers confers upon its surgeons full sanitary powers, and that its medical officers are men of recognized standing. On some of the English lines, notably the Cunard, it is expressly declared, in a recent order. by the company, that "the hospitals are to be under the surgeon's charge only when occupied by patients, at which time he will be responsible for their cleanliness and proper ventilation. When unoccupied, they are to be at the captain's disposal." In other words, the surgeon's duty is to care for sickness after it has actually occurred, and not to prevent it.

Not alone for the passengers, but also for the crew, is more and better protection needed. Poor Jack often suffers from the brutality of mates who would stand in wholesome awe of a properly commissioned sanitary officer.

The growth of abuses in this line has been a long one. A charge can come about only by slow degrees. We hope Mr. Leet will continue his propaganda, to which we give a most cordial support. Public sentiment ought to be aroused in every possible way to demand efficient medical service on all the lines so extensively patronized by Americans. If John Bull's pockets can be touched, he will perhaps become more considerate of his patrons.

Letting His Light Shine.—The following is a clipping from *The Cherokee Scout*, of Murphy, N. C., a country village weekly paper which thus allows one of its local medical celebrities to speak for himself. It is not necessary to mention the name of the man, as unfortunately it would not be recognized as famous by anyone outside of his particular preserve:

"I take this method of informing the public generally that I am now thoroughly equipped and prepared to, and hereby, tender my professional services in the practice of medicine, surgery, and obstetrics, being prepared to perform the most intricate operations in surgery and to treat the most stubborn chronic diseases. And in obstetrics I have my first case to lose in an active practice of twenty-five years, have attended hundreds without the slightest accident, never had even a slow recovery; and now, with a thorough medical training, coupled with an experience of twenty-five years' practice, I unhesitatingly announce that if you wish to be cured, call on or consult me, otherwise follow the advice of the prejudiced and the foolish and die. Hemorrhoids cured without the use of a knife."

Malignant Tumor of the testicle in children is rare. The prognosis is so grave that patients seem condemned to certain death within six months to a year.—Monod.

News of the Week.

Twelfth International Medical Congress.—The Russian Government has shown much interest in the meeting place for the Twelfth International Medical Congress, in 1896. It desires that Moscow be selected as the city, and promises to donate 50,000 roubles toward the expenses of the Congress.

Dr. Trudeau's House Burned.—The house and splendidly equipped laboratory of Dr. E. L. Trudeau, at his sanitarium at Saranac Lake, N. Y., were destroyed by fire December 4th, during Dr. Trudeau's absence in New York, where he is seriously ill.

The Peruvian Army Surgeon-General, Dr. Manuel Antonio Muniz, has presented to the Smithsonian Institution nineteen crania giving evidences of prehistoric trephining for surgical purposes. In some instances the patients died under the knife. In one instance, the patient survived the removal of a fragment four inches long and one and one-quarter inch wide. The resultant cavity was covered with silver. In one instance the patient survived two trephinings, but died after the third. The instruments used were flint, like those of the stone age (*Medical Standard,* Vol. XIV., p. 83). These skulls all have a persistent frontal suture.

Tribute to Dr. Abraham Jacobi.—American scholarship has received a flattering recognition from the savants of the Old World, in the invitation recently extended Dr. Abraham Jacobi, of New York, to take the Chair of Pedology in the University of Berlin. This professorship has been ably filled for a period of twelve years by Dr. Henoch. The offer was received by Dr. Jacobi in the latter part of October, and his answer declining to accept the place was sent the same day by telegraph.

The Demilt Dispensary, New York.—Dr. W. L. Stowell writes: "In your issue of November 25th is an editorial relative to 'Doctors and Dispensaries,' in which you say of Demilt, 'its patronage remains practically the same as twenty years ago.' In 1872 the new patients numbered 23,692. In 1892, 30,111 new cases. An increase of twenty-seven per cent. is not 'practically the same.' This increase has occurred while five or more dispensaries have been located and grown on the same territory. It was recently regretted, in a public meeting at the Academy of Medicine, that laboratories did not exist at dispensaries. At Demilt we have a complete Zeiss microscope, than which no better exists in this city. The managers have never failed to aid in providing any requisite wanted in the pathological department. I write this, not that I am in accord with all views of the management, but because facts are better than generalization in discussion."

Conservative Cæsarean Section for Placenta Prævia.—On Sunday, November 19, 1893, Dr. A. C. Bernays, of St. Louis, performed the conservative Cæsarean section for placenta prævia centralis, saving both mother and child by the operation. Age of woman, forty-two years; German; fifth pregnancy; no attempts at delivery; eight months gestation; woman in good condition; had been in labor twelve hours. The operation was completed in twenty-four minutes and forty-five seconds. Woman was able to sit up on the fourteenth day after the operation. This is the first successful case of Cæsarean section for placenta prævia in the United States.

Pre-natal Determination of Sex.—Dr. George Abbott, of Hamburg, N. Y., writes: "Last summer I met with two cases near each other very confirmatory of my old-time observations and theory relative to the 'Determination of Sex,' and seeing a report from Dr. McAllister, of Driftwood, Pa., in point in your number of December 2, 1893, I will at once send them to you. About the middle of May last, Mr. L—— called to engage me to attend his wife in confinement, which was expected about the 26th or 28th inst., reckoning two hundred and eighty days from her last menstrual period. In the conversation I learned that their only intercourse had occurred some ten days later, and that no intercourse nowhere near that time, previously nor for weeks afterward, had occurred. On the strength of that assurance I told him his wife would not be likely to be confined until near two weeks later, and that he then would have a daughter, a prospect that pleased him much, as he then had several sons. I set two hundred and eighty days, from the date he gave me as the time of conception, as her time for confinement, and on that date I delivered her of a daughter. Shortly after I was called to attend a primapara, who gave me the following history: She was taken unwell October 16, 1892, was married the 17th, and believed herself to have conceived the 23d, being about the fourth day following the cessation of menstruation. I diagnosed a case of false alarm, and assured her that her full time would not be up until a week from the following Friday, when she should be confined and delivered of a daughter. On the day predicted I was again called, and delivered her of a daughter. I noticed a report from a doctor, in Ohio, whose name and address I have lost, in your journal some months since, also confirmatory of the same theory, viz., that conceptions just previous to the menstrual period result in boys; and if just after, in girls. I wish more doctors would note and publish their observations when the facts are reliable."

A New Work by Professor Koch.—The *National Zeitung* says that Professor Koch, the bacteriologist, will shortly publish an exhaustive work on an improved method of using tuberculine, and the diagnostic properties thereof. The work will also treat of the recognition of the first stages of consumption.

Dr. R. G. Bogue, an old and well-known physician of Chicago, died at his home there on December 7th. Dr. Bogue was born in New York in 1832, and in 1857 went to Chicago. He was one of the founders of the County Hospital. He was president of the Chicago Medical Society, and prominent in many other societies of physicians. He had been sick nearly ten years, and death was not unexpected.

A Hospital Staff Crippled.—It is stated that the surgical staff of Roosevelt Hospital is at present crippled by the illness of Drs. Douglas Ewell, Edwin M. Cox, and Clarence Collins. Dr. Ewell, who was formerly house physician, contracted blood-poisoning about two weeks ago, while dressing a scalp wound. It was found necessary to amputate a finger of his left hand. He was confined to his house at 75 East Fifty-sixth Street. Dr. Cox, the house surgeon, was attacked with typhoid fever on

Sunday, and has been dangerously ill. It was reported last night that he was out of danger. The third victim, Dr. Collins, an ambulance surgeon, has been suffering from hospital fever for several days. It is thought that he will be able to report for duty within a few days.

Army Medical Examining Board.—The Army Medical Examining Board, which has just concluded its meeting in Washington, had thirty-four applicants registered for examination. Some of these failed to appear, and some did not reach the requisite physical standard, leaving twenty-four who were more or less fully examined. Of this number five were successful. The colleges represented by these successful candidates were the College of Physicians and Surgeons of New York City, South Carolina Medical College, Columbian University of Washington, University of Maryland, and the University of Pennsylvania.

Dr. J. B. Murphy, of Chicago, while on a brief visit to New York, was the recipient of many professional courtesies from the surgeons of the different hospitals, and had opportunities offered him of demonstrating the uses of his intestinal button.

A Census of the Physicians in New York.—Information has been received by the State Medical Society that many doctors who have no diplomas are practising medicine, and to get a full list of all the doctors who practise in this city the assistance of the police was requested. The captains detailed the men in districts so that they covered the entire precinct. They were instructed to copy the names and addresses from all the doctors' signs they came across. The work was completed in about two hours. The list will be submitted to the society, which will take measures to prosecute those who are practising illegally. There are between 3,500 and 4,000 physicians in the city.

The Harvard Medical School.—The position of dean of this school having been resigned by Dr. H. P. Bowditch, it is said to have been offered to Dr. William M. Richardson, professor of obstetrics. Among the subjects for the evening lectures is the anatomy and surgery of the gall-bladder, by Professor Maurice H. Richardson.

A Few Little Incidents of Foot-ball.—The *Lancet* has long made it a custom to chronicle the not inconsiderable mishaps that occur from time to time on the foot-ball field, and Dr. Amidon, of New York, has taken the pains to make a list from the *Lancet's* reports of those that came to the notice of the editor in the year 1892. How many casualties escaped notice cannot be told. In this year twenty-three deaths occurred in England that were directly traceable to foot-ball. Those indirect ones that occurred subsequently, or that will occur, are left for future historians. Here is Dr. Amidon's little list of the English accidents requiring hospital treatment: Concussion of brain, 3; injury to the head, 1; injury to the nose, 1; fracture of the nose, 1; fracture of the jaw, 1; fracture of the collar-bone, 20; dislocation of arm, 1; compound fracture of arm, 3; fracture of arm, 5; bad fracture of left arm, 2; serious injury to arm, 1; compound fracture of the elbow, 1; fracture of left wrist, 1; fracture of ribs, 3; severe sprain of thigh muscles, 1; fracture of thigh, 3; injury to leg, 1; fracture of leg, 29; bad fracture of leg, 1; compound fracture of leg, 5; fracture of knee-cap, 1; severe injury to knee-cap, 2; fracture of ankle, 3; dislocation of ankle, 1; sprained ankle, muscles, and tendons severely wrenched, 1; severe injury to foot, 1; fracture of spine, 1; serious injury to spine, 1; serious injury in groin, 1; severe internal injuries, 2; severe internal injuries, fatal in two days, 1; fatal abdominal injuries, 6; undescribed accidents followed by death, 3; undescribed accident followed by lock-jaw and death, 1. Total number of grave injuries, 109. For the year 1893 the returns are not yet in. In the *Lancet* of November 18th, there are recorded, as occurring during the preceding week, three cases of fractured leg; one of kick in abdomen, with death; one of concussion of spine; one of fractured clavicle; one of injury and death. This year, therefore, there have been at least twenty-eight deaths in England.

City Boards of Health Have no Inherent Power over City Government.—That boards of health created by city governments or auxiliary thereto have no power over same other than is relinquished to them, is brought out by the decision of the Supreme Court of Georgia in the case of Mayor, etc., of the City of Brunswick *vs.* King (17, *S. E. Rep.*, 949). Here the court said that the function of the above board was that of an advisory body, and of an agency to carry out such regulations in the matter of the public health, not inconsistent with the laws of the land, as the mayor and council, by their ordinances, might see fit to direct. The streets of the city being by its charter vested in fee simple in the mayor and council, with power to widen, extend, and straighten the same, and with power to open, lay out, and establish new streets, the necessary incidental power of grading and otherwise improving the streets and keeping them in repair was also in the mayor and council. None of these powers were withdrawn, abridged, or limited by the amended charter of the city, providing for the creation of a board of health and the election of a health officer. Therefore, ordinances passed under the authority of the amended charter, which did not expressly name the mayor and council as subject thereto, were not operative upon them when acting as a municipal body in the exercise of their corporate functions in improving or repairing the streets.—*Cincinnati Lancet and Clinic.*

Myopia among College Students.—The senior class at Yale numbers 185 students; of these 54 wear glasses, the necessity for such aids to vision having, in 25 of the cases, arisen since the students entered the College. The average age of the members of the class is twenty-two.

Diner des Infécondes.—A small company of select demi-mondaines has just instituted a *diner des infécondes*, under the honorary presidency of a surgeon noted for the readiness with which he performs ovariotomy. This charming company of patients who have been operated upon meets for dinner each month, the surgeon presiding at the table. The novelty of this form of vicarious menstruation is truly Parisian.—*Boston Medical and Surgical Journal.*

Hernia after Operations for Appendicitis.—A contemporary states that one instrument maker in New York has sold within the past year no fewer than six dozen special trusses for ventral hernia following operations for appendicitis.

Society Reports.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, December 7, 1893.

D. B. St. John Roosa, M.D., President, in the Chair.

Nominations for Office.—Nominations were made as follows, one candidate to be elected for each office: Vice-President, Robert W. Taylor, Joseph D. Bryant, W. P. Northrup; Trustee, A. Jacobi, Edward S. Peck, W. H. Katzenbach; Committee on Admission, John S. Warren, Andrew F. Currier; Committee on Library, William Gilman Thomson, John W. Brannan, S. T. Armstrong.

Amendments to the By-laws.—The following amendments to the by laws were adopted: 1. No section is authorized to institute any procedure that is of a public character without first submitting the project to the consideration and approval of the Academy. 2. Special meetings may be called at any time by the chairman of a section upon the requisition in writing of ten fellows assigned to that section. The announcements of such special meetings are to be printed and mailed to each fellow of the Academy, at the expense of the Academy. 3. An amendment essentially as follows: A resolution involving new business, or pertaining to a subject that is not germane to the matter announced for consideration at an Academy meeting, must be mailed separately to each member at least one week in advance of the meeting.

Bureau of Trained Nurses.—At the recommendation of the Council resolutions were adopted providing for the establishment of a bureau of trained nurses in the Academy building, the President being empowered to appoint a committee of five to carry out the purport of the resolutions.

Intestinal Anastomosis.—The discussion for the evening was in charge of the Surgical Section, the Chairman of which, Dr. Joseph D. Bryant, occupied a seat by the President on the platform. Dr. J. B. Murphy, of Chicago, read the paper, in which special attention was given to the following points: 1, The means of producing union of divided intestinal tissues; 2, the comparative value of end to end and lateral intestinal approximation; 3, cholecystenterostomy; 4, post-operative narrowing of the interintestinal communications; 5, the influence of time employed in operation, as bearing on consequent shock and peritonitis.

The discussion which followed was participated in by Drs. W. W. Keen, R. F. Weir, Robert Abbe, and B. F. Curtis.

Danger of Obstruction by the Button and of Cicatricial Constriction.—Dr. W. W. Keen, of Philadelphia, said he had performed an anastomosis on the digestive tract in but a limited number of cases, eight all told; four cases of gastro-enterostomy, four of intestinal anastomosis proper. Of the cases of gastro-enterostomy one died after twenty months; one of exhaustion after the eleventh week; the third was living at the end of eighteen months; the fourth at the end of a year. Of the four cases of intestinal anastomosis one died at the end of forty-seven days, of a lesion independent of the operation. That was the only case in which he had used Murphy's button. The second case died the eleventh day after the operation, of exhaustion. The third was believed to be still living at the end of a year. The fourth died within twenty-four hours after the operation for resection of the colon and lateral anastomosis. With his present experience, he thought that in a similar case he would prefer to leave the carcinoma intact and do lateral anastomosis alone. The means which he had used had been, in one, Murphy's button; in one, the segmented ring of Ashton and Baldy; and in the others, Abbe's catgut rings.

In intestinal anastomosis there were four requisites, whatever the method used: 1, Simplicity of execution; 2, speed; 3, security: 4, that the opening shall be of sufficient calibre to obviate subsequent obstruction by cicatricial contraction. The methods had been named by the author as follows: 1, Suture alone; 2, suture and mechanical means; 3, mechanical means alone.

The first requirement named he was sure had been fully met by the button, which he regarded as one of the most ingenious mechanical appliances in the whole domain of surgery. With reference to speed, the button was again far in advance of any other means yet devised. He also thought it offered as secure, probably a more secure, method than any other. In the case in which he had used the button he had depended on it alone, using no sutures, and it had secured perfect anastomosis. But what seemed to him would be likely to prove a fatal objection to it, was failure to establish an opening of sufficient size to be a guarantee against subsequent obstruction to the passage of the intestinal contents. In his own case, of which he exhibited the specimen, the subsequent narrowing had been considerable, and the explanation therefor in the disappearance of œdema, which he had understood the author to accept, could not have been the correct one, for the reason that the œdematous or diseased structure had been excised and union had been made between healthy portions of the gut.

While the tendency in New York had been to discourage the use of mechanical means in intestinal anastomosis, Dr. Keen personally confessed to preference for such means over suturing alone, and especially for the mechanical means known as Abbe's rings. He felt, however, that that very large opening proposed by Abbe of late, say four inches in length, was needlessly large. Some of the objections which had been made to the button did not seem to him to be valid ones. For example, he did not think pressure necrosis would extend beyond the compressed tissue between the two halves of the button. As already stated, the most serious objection was danger of subsequent contraction to such an extent that the intestinal contents could no longer pass. A lesser danger, one which he felt was real in spite of the fact that it had not yet occurred, was that of intestinal obstruction from failure of the button to pass through the intestine, especially at the ileo-cæcal valve.

One of the conditions in which the button would prove superior to all other means yet at our disposal, was in the operation of cholecystenterostomy, one of the most difficult operations in abdominal surgery. Inasmuch as nothing but fluids had to pass through the artificial opening, this was less likely to contract to the extent of producing subsequent occlusion, and a button of moderate size being used, it probably would pass successfully through the ileo cæcal valve.

Dr. R. F. Weir believed, as Dr. Keen had expressed himself, that the condition in which the button would prove to be especially useful was in making communication between the gall-bladder and intestine after failure to do away with the obstruction in the gall-passages. Like him, too, he had had some fear that the button might not get out of the intestine, notwithstanding the fact that this accident had not yet happened, according to the cases reported by Dr. Murphy. In gastro-intestinal union he thought mechanical means should be discarded. Experience in New York went to show that they had not afforded sufficient opening between the intestine and stomach. He had performed this operation, using Abbe's rings in one case, in one case sutures alone, taking not more than forty minutes from the time of opening the abdomen to closing it. As to the plugs or buttons shown for lateral anastomosis, he did not feel that one would be warranted in using them of so great size, lest they should fail subsequently to pass the ileo cæcal valve. Yet it was necessary, in his opinion, to make the opening three and a half to four inches long, in order to obviate occlusion by cicatricial contraction.

Dr. Weir showed a man who had been operated upon by a surgeon for hernia, who afterward developed an abdominal tumor supposed to be malignant, who was then subjected by a colleague to exploratory incision and union

of the cæcum with the abdominal walls preparatory to further operation, should this prove necessary. His symptoms becoming more severe, he passed into the hands of Dr. Weir, who explained to him the advantages of intestinal anastomosis over a temporary opening into the gut at the place where it had been attached to the abdominal walls, but told him also that anastomosis would be attended by greater danger. He chose anastomosis. Lateral union was made with an opening two inches and a half long, yet, in spite of the fact that only half a year had elapsed, there were now symptoms of recurring obstruction, although it was impossible to say whether the obstruction was due to contraction of this large opening or to omental adhesions. The diagnosis of malignant growth had been made and abandoned, the tumor having diminished in size, pointing to subsidence of a simple inflammatory and œdematous condition of the omentum at the site of the previous hernia.

He also presented a specimen in a case of anastomosis between the stomach and intestine, illustrating the possibility of accident from use of mechanical means, catgut rings having been employed which twisted and led to fatal hemorrhage. He further showed Murphy's button on a specimen illustrating cholecystenterostomy. The application of the button to cases of rectal stricture, as described in the paper, he felt was a very valuable suggestion.

A Needle and Thread Sufficient, and to be Had Everywhere.—Dr. Robert Abbe felt the untrustworthiness of statistics. They furnished but an imperfect basis on which to found impressions and guides. The paper contained statistics which he had not heard of, and left out others which were familiar in the East, especially with regard to the rings. Various devices had been brought forward for making ready anastomosis, but even the bone-plates, which at first promised so much, had been discarded because of serious objections. Any surgeon who was dexterous with the needle and thread, had a method always at hand which would serve him well in making intestinal anastomosis. The statistics of end to end anastomosis of the intestine had been based upon past imperfect methods, and therefore required revision. The reason why he had proposed so long an incision in lateral anastomosis was the fact that in four striking cases the necessity for this was demonstrated. In two he made the opening an inch and a half long, they died at the end of six months, of malignant disease, and in one the autopsy showed that the opening had contracted down to a quarter of an inch, and in the other to a small aperture which the tip of the little finger would hardly enter. The other cases were operated upon two years and a half ago, longer openings being made, and they were well to-day. The law of contraction in cicatricial tissue should always be borne in mind when making anastomosis.

When it came to the question of time, Murphy's button was brilliant. It was apparently the climax of surgical ingenuity. If it should prove that there was less danger of cicatricial contraction from the circular scar of end to end anastomosis, and this could be obtained with the button without danger of subsequent blocking of the gut, its use would prove a decided advance. It was, however, in cholecystenterostomy that the button had so far won laurels, and he thought deservedly so. It was known, however, that quite large gall-stones ulcerated through into the intestine and the opening afterward closed, as shown post mortem, and it might be that the opening made by the button would also close; but unless it should become completely occluded it would permit the passage of the bile. When gall-stone was the cause of the obstruction it should, if possible, be removed from the duct. The cases especially adapted to the use of the button were those of malignant obstruction of the duct, since the disease would probably run its course before there was time for cicatricial occlusion. He attributed the improved statistics of to-day to the surgeon's ability to do clean peritoneal work.

Dr. B. F. Curtis thought that all must admire the ingenuity of the Murphy button, but, as it had already been stated, there were objections to it. There was hope that in the future the ingenious contrivance would triumph over the danger of stenosis and intestinal obstruction. The principal argument which had been advanced in favor of mechanical aids was a saving of time. There was no doubt that the length of the operation in certain cases had a very important influence on the result. Operations were for two classes of cases, namely, the chronic, where the question of time was of little importance, and the acute, where the question of time was of very great importance. In the former, of course, the chief indication for the button, as for other mechanical aids, was absent. In the latter, the necessity for a quick operation could be met by making the preliminary artificial anus. Another advantage in taking this course was in the fact that the obstruction calling for interference sometimes disappeared after the indication for immediate relief had been met. There was no danger of the temporary opening into the gut remaining permanent.

Dr. Murphy closed the discussion. The speakers had expressed the same doubts as regards the dangers attending the use of the button which he had felt in some degree himself, until experience had shown them to be apparently without foundation. At least the danger of cicatricial contraction after end to end anastomosis was less than that attending union by the Czerny-Lembert suture. It secured the largest possible opening by end to end union, with the least possible amount of cicatricial tissue. Cicatricial contraction had been shown to be due to fibrous deposit, and this was less in approximation by the button than by any other method.

What surgeon would feel the least worry if a mother brought to him a child who had swallowed a penny or even a twenty-five cent piece? He would tell her to go home and give no more thought to the matter. Dr. Murphy did not believe that there was any danger of the button failing to pass through the intestine, except there were some pathological condition.

Regarding Dr. Abbe's criticisms as to the statistics which he had presented, he could only say they had been compiled by one who had collected statistics for Senn, which showed his entire reliability; moreover he had been unaware of what use they were to be put to.

The explanation of the contraction following the use of the button in Dr. Keen's case, as suggested by Dr. Mayo, had not been subsidence of œdema, but return from a state of distention by gases, etc., during existence of obstruction, to the normal size after operation.

SECTION ON OBSTETRICS AND GYNECOLOGY.

Stated Meeting, November 23, 1893.

H. J. Boldt, M.D., Chairman.

Case of Rudimentary Vagina, Uterus, and Ovaries.—The chairman, Dr. Boldt, presented a young woman, twenty years of age, in whom examination revealed a very small vagina ending in a blind pouch, also only the rudiment of a uterus, and so far as could be determined by touch alone, entire absence of ovaries. It was probable however, that the ovaries also existed in a rudimentary state since there was slight menstrual molimina.

The chairman had recently read the report of a case of rudimentary vagina in which the physician had tried to cut down to the uterus and found absence of this organ. He thought that there should be no excuse for failure to make diagnosis of absence of the uterus before undertaking any operative procedure. He also said that doubtless many cases of rudimentary development of the sexual organs were reported by more than one observer because the name of the patient had not been given. He therefore wished to append the name of the patient in this case, which was A. Goodman. Inasmuch as the molimina was only slight he had advised against an operation.

Dr. A. F. Currier referred to a case seen by him, in which a young woman, fifteen years old, had absence of vagina while all the other sexual organs were well formed. In her case the menstrual molimina caused the formation of a tumor which finally opened into the rectum. A drainage-tube was then inserted through this opening into the uterus, but it was afterward for some reason removed, and the opening closed and led to the reformation of a tumor. He saw her again last May, when she was going through the same experience a second time. He advised the removal of the ovaries and performed the operation. He was asked what would be the result if the girl should marry, and replied that it would probably be serious, for the reason that the husband would have legal ground for divorce. He was therefore requested, if possible, to form a vagina, which he undertook by the use of graduated dilating glass bougies, and finally succeeded in getting a passage which was two inches long by two and one half inches in circumference. During the process of dilatation he unfortunately opened the bladder, but the wound healed promptly, so that no trouble ensued.

Dr. Stanard said he had once seen a similar case to Dr. Currier's in the practice of Dr. W. H. Baker, of Boston. The uterus was rudimentary, the vagina was extremely short, not reaching up to the uterus. As the patient wished to marry, Dr. Baker undertook to make dissection up to the uterus, but met with an unexpected difficulty, namely, extreme thinness of tissue between the vagina and the rectum, which led to the formation of a recto-vaginal fistula. Therefore he did not succeed in carrying the dissection up as far as the rudimentary uterus.

Submucous Fibro-myoma together with Tubo-Ovarian Diseases Mistaken for Multiple Fibroids of the Uterus; Hysterectomy; Recovery.—Dr. Stanard presented specimens of a case whose chief interest centred in a mistake in diagnosis. The specimen, consisted of a uterus about five by four by three inches, its interior occupied by a tumor in the shape of an inverted cone, attached to its fundus. He had been unable with the finger, which had been introduced with difficulty through the small hymen, to make out the demarcation between the cervix and the tumor projecting from it. He felt less hesitation in stating this fact since two eminent specialists had made the same error in diagnosis. At the operation the uterus was found very symmetrical in form, the tubes and ovaries the seat of disease; and after extirpation by Goffe's method, leaving the dilated and thin cervix as a stump, the true nature of the uterine tumor was found to be submucous and not interstitial.

Probable Abdomino-Peritoneal Gestation Sac.—Dr. Stanard presented a second specimen consisting of the ovary, tube, and a fibrous sac independent of the tube and the ovary, which he believed to have been the seat of abdominal gestation. He was unable to account for the tumor under the circumstances related except on the basis that it had been the seat of extra-uterine pregnancy, although no embryonic growth was found to make this diagnosis a positive one. It was evident, however, from the appearance of the tubes, that if the sac were a gestation sac the ectopic pregnancy could not have been in the first place tubal.

In the discussion which followed Dr. Grandin referred to a case of pregnancy in which there was only a pin-hole opening in the hymen. Dr. Currier expressed preference for the complete removal of the uterus to any form of partial amputation. Dr. Boldt expressed doubt as to the sac in Dr. Stanard's case being the sac of ectopic gestation.

Diseased Tubes and Ovaries.—Dr. Currier presented the tubes and ovaries removed from a woman, twenty-one years of age, who had married at the age of sixteen and during one year past had followed the life of a prostitute. She had suffered eight or ten days every month from abdominal pains, cramps in the right leg, etc. He also presented the tubes and ovaries in a second case where there was a history of syphilis, sterility, disordered and painful menstruation, etc. In this case he found on one side a dermoid cyst, and on the other a certain amount of disease in the tubes and ovaries which led him to remove them, in spite of the fact that the patient had requested him to spare the organs on one side, if possible, as she objected to complete mutilation. This remark pertained also to the first case, and he was therefore led to raise the question whether one would be justified in complying with the request of the patient and leave organs on one side which he had reason to believe would be very liable to cause trouble in the future, although the extent of the disease was not striking to the unaided eye.

Dr. Ralph Waldo did not think we should leave the tubes on the other side when they were diseased beyond repair.

Dr. Porter thought the difficulty lay in determining what constituted beyond repair. All the facts in the case, including the patient's age, social relations, etc., should be taken into consideration. If she were anxious to bear children and was opposed to the sacrifice of both organs, he thought the surgeon might better take the chance of doing two operations than remove the appendages from both sides and thereby make subsequent pregnancy impossible.

A New Method of Controlling Uterine Hemorrhage by Means of Electrolysis.—Dr. A. H. Goelet exhibited a portable galvanic battery and a number of electrodes, in illustration of the method of checking uterine hemorrhage by use of the positive pole composed of copper, or by wrapping the ordinary positive electrode with cotton dipped in some metallic solution. The method was that which had been popularized by Dr. Gautier, of Paris, who first wrote upon it in 1891, and designated it interstitial electrolysis. By this means the salt at the positive pole was decomposed, so that its power upon the bleeding part was much greater and extended more deeply than where the ordinary electrode was employed. A piece of steak in which he plunged the positive copper electrode and passed a current of over a hundred milliampères a short time, showed an electrolytic process some distance around it, as indicated by the greenish tinge. The same thing took place when the electrode was introduced into the cavity of the uterus and brought into contact with the bleeding surface. It was of value in all cases where it was desired to apply an astringent to the mucous surface, as in endometritis, granular degeneration of the cervix, etc. Dr. Goelet related a case of hemorrhage in which the copper electrode with one hundred milliampères had controlled hemorrhage after failure with curettement. Frequently, however, twenty-five or thirty milliampères was sufficient. If necessary the treatment could be repeated when hemorrhage was not entirely controlled at the first sitting. He said that where physicians had met with failure in control of hemorrhage by the galvanic current it had often been due to the fact that the electrode had not been brought into contact with the entire hemorrhagic surface. This was especially liable to take place where the uterine canal was rendered tortuous by the presence of a tumor.

Dr. Currier said he had used copper electrodes similar to those presented by Dr. Goelet as long ago as four or five years, and had found that they did act admirably in controlling hemorrhage for the time being, but it had always seemed to him that it was due to the corrosive effect rather than to any particular hæmostatic effect of the copper. Then one difficulty with such large electrodes was that the operator could not confine the current to the exact point of hemorrhage, even if it were possible to determine where this was.

Dr. Goelet said it should be understood that the pole did not act as a cautery in controlling hemorrhage. He was somewhat surprised to hear that Dr. Currier had used copper electrodes within the uterus four or five years ago, for in that event he antedated European operators and should have credit for it. For his own part he had found

the result in controlling hemorrhage decidedly permanent. A greater or less amount of the electrode could be exposed according to the necessity of the case.

SECTION ON GENERAL MEDICINE.

Stated Meeting, November 21, 1893.

CHARLES E. QUIMBY, M.D., CHAIRMAN.

Changes in Therapeutics.—THE CHAIRMAN said that in arranging a discussion upon this general subject the desire was to sift the best methods of treatment from among the many which had prevailed from time to time, and not to criticise the disposition to change methods, since without some change no advance could be made

Variations of Therapeutics as Taught Within the Last Few Years.—DR. WILLIAM L. STOWELL, who had been requested to present a brief paper upon this subject, said he had not found the task an easy one, but he had tried to consult the leading authors of England, Germany, and America, chiefly on practice, to some extent on therapeutics, and in chronological order. Empirical treatment had seemed general during the first two-thirds of our century. Then Chambers gave new stimulus to thought by his views. These were given by Dr. Stowell, in condensed form, as were also in turn those of Watson, Hughes Bennett, Gairdner, Stillé and Maisch, Neimeyer, Wünderlich, Pfeuffer, Liebermeister and Willibrand, Trousseau, Murchison, Austin Flint, Currie, H. C. Wood, Ringer, Reynolds, Ziemssen, Bartholow, Brunton, Hare, Baruch, Pepper, Loomis, and others.

"From this hasty and incomplete survey a number of lessons may be learned. Before this generation the expectant method held pre-eminence, its best exemplar being the observant and wise Watson. His writings are delightful, as he was blessed with the gift of commonsense. Chambers then draws special attention to the need of restoring function and supplying new bricks to the tumbling human temple. His teachings seem to reach the English-speaking physicians, but the continental physicians are working by contraries, cold baths are revived and statistics pile up. Specifics are found, and the diseases are shortened by this and that. As each new remedy lessened the mortality by from five to twenty per cent. it would seem that away back, more than one hundred per cent. must have died. Bloodletting and depleting measures held out longer in France. Excessive alcoholic stimulation gave place to occasional stimulation—twenty-five to thirty ounces a day falls to four or five ounces. With the certainty of bacterial origin for many diseases, antiseptics are tried in typhoid fever, but mostly fail. Diet remains fluid, as the enfeebled stomach cannot digest solids, rather than for fear of doing the intestine harm. Antipyretic drugs begin to be abandoned as weakening the heart, and fewer physicians fight fever as such. The present state of therapeutics, therefore, is, in the words of Wood, 'a mixture of science and empiricism.'"

DR. WILLIAM H. DRAPER thought the changes in treatment mentioned to night were not really as great as one might at first suppose. If we should systematize the different forms of fever we would find that, while the means had been variable, the principles had been few. Instability was rather an opprobrious term, yet he would venture to say that at no time in the history of therapeutics had stability been a desirable quality. Instability in therapeutics meant progress in medical science.

Limiting his remarks to pneumonia and typhoid fever, it was certainly within the recollection of some that pneumonia was formerly treated as a pure inflammatory disease, and on that basis it was treated antiphlogistically. It was bled, it was purged, it was sweated. Typhoid fever was looked upon as a disease in which the intestinal lesion was the essential element, and this lesion was treated, and treated for the most part with remedies which were intended to drive the disease away from this part of the body.

The great revolution in therapeutics which had come within his time was a revolution which was dependent upon an entirely different view of the pathology of these two diseases; upon the view that they were essential fevers which ran their course in definite periods. The effort was then no longer made to exorcise these diseases by violent remedies. They were treated symptomatically by the majority of the profession. Still, empiricism had held sway more or less, and many remedies had been brought forward as alleged specifics. So far as his personal observation had extended, however, he had seen no craving after a specific method of treating either pneumonia or typhoid fever. He believed they were much more successfully treated now than thirty years ago, for the reason that they were allowed to run their course without serious interruption or serious interference which came from the administration of experimental therapeusis. Nor did Dr. Draper believe that within our time we would see any specific for either affection. The introduction of the germ theory did not seem to offer at the present time any hope of great improvement in therapeusis based on that theory. Yet, he said, if ever a specific should be discovered it would, of course, be based on the destruction of the germ which produced the disease. At present there was none known which would not first destroy the patient.

With regard to the diet, he could not say that within his time he had seen any very great revolution in the feeding of these two diseases. A revolution took place at an earlier time than when he began to practise medicine. He supposed we could date the period of feeding fevers from the time of Graves and Stokes. The pendulum then swung too far in that direction, and Murchison, he thought, was right, when he said we were overfeeding fevers instead of feeding them in a scientific and rational way. The introduction of milk in sustaining patients with fever was a very great improvement upon beef-tea.

He agreed with Dr. Flint that beef-tea was worthless except as a means of supplying the system with fluid. Again, if there was any kind of food which was not well borne in fevers, it was, he thought, albuminoids. It was this property which made even milk disagree to some extent. But febrile patients digested fats, they digested the cream of milk well, and all the properties except the albuminoids. It seemed to him that the method which had seen introduced by Dr. Roach, of Boston, for feeding modified milk according to a certain formula, would prove very valuable.

In his early experience they gave at Bellevue Hospital large quantities of alcohol to fever patients, and he remembered that Dr. McCready could never reconcile himself to that he regarded as simply a waste of very good whiskey. They then frequently gave a pint or a pint and a half of whiskey to a patient with typhus or typhoid fever. As feeding was overdone, so was stimulation. He believed the rules laid down by Murchison with regard to the use of stimulants were good ones, but he did not believe they were better than Stokes's, who said that so long as alcohol diminished the frequency and improved the force of the pulse, so long as it caused a dry tongue to become more moist, so long as it diminished subsultus and quieted delirium, so long it was doing good. But when it increased the frequency of the pulse, and made it quick and small; when it increased the dryness of the tongue, when it increased the cerebral excitement, and when it increased the subsultus tendinus, then it was doing mischief.

Hopeful of Inoculation Treatment.—DR. A. A. SMITH had been requested to discuss changes which had taken place with regard to cardiac stimulants, but he wished to say, first, that he had more hope of shortening typhoid and pneumonia, or fevers, than it seemed Dr. Draper had. Not, however, in the line mentioned, of destroying the germs, but rather by inoculation of products of the disease from other patients.

Of the remedies which had best held a place in the

treatment of these diseases, it seemed to him that alcohol was one. As Dr. Draper had said, it was once given in very large quantities, as much as the patient could hold. It was probably given as often to-day as formerly, but not in so large quantities.

The next most common tonic or stimulant, especially in pneumonia, was opium. It was more especially used where there was pain of pleurisy associated with the pneumonia. It also seemed to Dr. Smith to be useful in relieving cough and in oxygenizing the blood when not continued too long and in too large quantity.

Under the instructions of the visiting physicians years ago, he had frequently given forty to sixty grains of quinine at the beginning of pneumonia. It was supposed to sustain the nervous system, to reduce the temperature, and to shorten the disease. As he recalled cases of pneumonia in which sixty to eighty grains of quinine were given a day he thought the disease was really shortened. But only by shortening the life of the patient. Many patients recovered, but in spite of the quinine. He thought it would be a great rarity to find a physician in the city who gave as much as fifty or sixty grains of quinine a day to a patient with pneumonia. It was, however, still given, but in small doses, six or eight grains a day, which produced only the tonic and stimulating effects of the drug.

The Ammonia Preparations.—Twenty years ago these occupied a prominent place among the tonics and stimulants, especially in pneumonia. Following the lead of Richardson, the carbonate or muriate of ammonia was given with a view to lessening the liability to cardiac thrombi. Dr. Smith had been impressed by their depressing effect upon digestion. Aromatic spirits of ammonia, however, was well borne by the digestive system, and if there was any virtue in the ammonia preparations this was the best one.

Digitalis.—No agent had been discussed more hotly from a personal standpoint than this one. It was much used twenty years ago, held its ground many years, then lost a good deal, and again had come to be used considerably, but less than during the earlier period. The same thing might be said of strophanthus and convallaria. Convallaria flashed up, was advocated extensively, then passed by. Strophanthus had held its place better than convallaria but not so well as digitalis. There was a doubt in the minds of many even with regard to the propriety of using digitalis in pneumonia.

Strychnia.—Strychnia was practically not in use twenty years ago, yet to-day it was recognized as one of the best, if not the best, cardiac and nerve tonics in both pneumonia and typhoid fever. In the opinion of many caffeine should take an important place. In certain conditions it has been used with a great deal of success. Glonoin had been used, but there was much diversity of opinion as to its value. Dr. Smith was inclined to believe that it would hold a place in pneumonia.

Baths.—The enthusiastic advocates of baths claimed that there was much less need for cardiac tonics and stimulants since their introduction, and Dr. Smith agreed with this view. He thought ether and camphor had not held their place. If oxygen were a tonic and stimulant, it was so only secondarily. Twenty years ago it was used quite extensively; then it seemed to have fallen into disuse, but it seemed to be more growing in favor again, and had more than held its place.

The Present Treatment of Pneumonia and Typhoid Fever.—Dr. George L. Peabody thought the treatment of pneumonia to day had come to be entirely a matter of intelligent expectant and symptomatic treatment. There was no recognized routine treatment which could be applied to all, or even any considerable number of cases of croupous pneumonia. For the relief of cough, we were all compelled in certain cases to resort to some active remedy, and he had himself frequently found it necessary to use a few drops of chloroform inhaled from a wide mouthed bottle covered with cotton. Used in that way not enough chloroform was inhaled to do harm. Steam was also useful in relieving cough and loosening material in the upper air passages.

Opium.—It was frequently necessary to relieve the pain of pleurisy connected with the pneumonia. He had often been struck by the prejudice which existed against opium or any of its alkaloids in pneumonia, the old idea being that it depressed the respiratory centre. He believed, however, that we were amply justified in using say, one-sixth of a grain of morphine subcutaneously, for the relief of pain, and frequently it was the only means of relief, although occasionally hot water or ice to the surface would answer. Hot and cold water or ice acted in the same way, by depriving the affected part of some of its blood supply. For the relief of the insomnia of pneumonia, he preferred sulphonal and like agents to opium or chloral.

To Relieve Dyspnœa.—To relieve dyspnœa due to congestion of the venous system, Dr. Peabody had much faith in the temporary removal of blood from the centre of irritation. It could be accomplished by placing a ligature about an extremity, thereby shutting off several pounds of blood from the general circulation, which might be continued an hour or an hour and a half. Of course if the dyspnœa were due to extensive involvement of the lungs, the ligature might fail to relieve it. Oxygen would then be of value. But he thought it was a mistake to suppose that oxygen would be of value where there was no obstacle to the entrance of air. Stimulants would relieve dyspnœa to a certain extent, particularly where it was due to overdistention of the right ventricle and right auricle. He would rank caffeine high among stimulants under those conditions. It was important to give a good preparation; the so-called citrates were inert. None was better than the caffeine itself, which, being insoluble in water and the fluids of the mouth, could be rendered soluble by the doctor himself giving it in citric acid, thus making his own citrate of caffeine.

As to antipyretics, he was personally a believer in cold baths in croupous pneumonia, used by the Brandt method as in typhoid fever. Give the bath once in three hours, temperature of 65° F. If the patient's temperature rose above 102.5° or 103° F., friction was useful. Antypyretic drugs were not to be relied upon, especially if the temperature were high. If the patient were robust, a soothing dose of antipyrine could be given, but not enough to reduce the temperature lest it produce a toxic effect upon the heart. Simple nutritious food; milk with each meal. Digitalis was the best stimulant. We now had a praiseworthy preparation of digitalin. Formerly it was an inert powder. He still used the French dosometric treatment, aconitin, digitalis, and arsenite of strychnia, modifying the combination according to the case, but had less faith in its value than formerly.

Drugs in Typhoid Fever.—As to drugs in typhoid fever, he thought that according to modern views the fewer used the better. He believed that the cold bath, according to the Brandt method, with friction in the bath, was rapidly replacing all other methods, and in his opinion it was the best. He still has some hope for the antiseptic method, not in killing the bacteria, but in counteracting the poisons to which they gave rise.

The Chairman named different kinds of treatment and called for a raising of the hand by those who still employed them.

Remedies which have Stood the Test of Time.—Dr. Simon Baruch thought that if the value of remedies was to be judged of by the length of time they had been in use, those of a hygienic character certainly took the first place. Baths and feeding as remedies for disease dated back as far at least as Hippocrates.

Lubricant for Catheters.—Castor-oil is an excellent material for this purpose. It is non-irritating and tenacious. It should always be applied warm, and the bottle containing it should be frequently washed with alcohol. It can be used for silk and rubber catheters alike. —Dr. J. M. Kitchen.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, November 27, 1893.

WILLIAM STEVENS, M.D., AFTERWARD H. D. CHAPIN, M.D., IN THE CHAIR

The Medical Directory.—DR. DANIEL LEWIS read his fifth annual report as editor of the Medical Directory. To the last volume had been added names of practitioners in the counties of Kings and Westchester. Those members whose names had been omitted should communicate with the treasurer. The total receipts had been $1,812; expenditures, $1,686. Including uncollected bills, the balance to the credit of the society was $393.

The society accorded Dr. Lewis a vote of thanks for his painstaking task in editing the directory.

Report of the Committee on the Practice of Midwifery.—DR. EDWARD A. AYERS, chairman of the committee consisting of Drs. Ayers, Baruch, Jones, Collyer, and Drayton, appointed at the March meeting to report upon the regulation of midwifery, read the report.

DR. DANIEL LEWIS moved that the report be received and referred to the comitia minora with power.

DR. PIFFARD thought that the proposed amendments should not be presented before the Legislature until they had received the indorsement of the State Medical Society and approval of the State Board of Medical Examiners and of the Board of Regents. He offered an amendment to that effect, which was adopted.

Address of the Retiring President.—DR. WILLIAM STEVENS, retiring president, read a brief address, reviewing some of the work done by the society during the year, recommending to the consideration of the members the Society for the Relief of Widows and Orphans of Medical Men, and expressing thanks for the courtesy which had been extended him during his term of office.

Address of the President Elect.—In the absence of Dr. Powell, President-elect, the Vice-President, DR. H. D. CHAPIN, read his address. In it he referred to certain abuses in medical practice, most prominent among which was the treatment at dispensaries and hospitals of persons who were able to consult a physician at his private office. A most flagrant violation of the charity act had been committed by the Board of Health when it had vaccinated free the members of the Board of Trade and other prosperous business people. A corporation lawyer exacted the highest fee commensurate with the interests involved. Why should the physician take a different course? It is also suggested that there should be legislation providing for the summing up by experts before the court or jury of testimony of a medical character. Such a system of expert testimony would inspire confidence and respect, whereas the present one had an effect quite the opposite. It was also recommended that any proposed medical legislation should first be submitted to the consideration of the comitia minora before being acted upon by the society. There should be a standing committee on legislation. The address contained a quotation from a recent editorial in the MEDICAL RECORD regarding the New York Infant Asylum affair, and surprise was expressed that physicians could be so short-sighted as to range themselves upon opposite sides of this question. The entire profession should stand together in repelling such injustice and discourtesy shown its members.

On motion the recommendations and suggestions contained in the President's address were referred to the comitia minora with instructions to report at the next meeting.

Bureau of Nurses.—The comitia minora reported as follows: That the question of the appointment of a committee to establish a Nurses' Bureau shall be referred back to the society with the recommendation that a committee to confer with the Academy of Medicine with regard to the establishment of such a bureau shall be appointed in its place. The report was accepted.

Notes on the Modification of Cow's Milk for Infant Feeding.—DR. HENRY D. CHAPIN gave a *résumé* of the method of modifying cow's milk as suggested several years ago by Dr. Roach, of Boston, and now being carried out at the Walker Gordon Laboratory in this city, a rather full description of which was given in the MEDICAL RECORD a short time ago by Dr. Northrup. Dr. Chapin had tried modified cow's milk for infant feeding in a number of cases, with almost uniform success.

DR JOSEPH E. WINTERS had used modified cow's milk a great deal. He had never had to change it to wet nurse. He had tried it in cases of premature birth with success, also in disease, and knew no reason why it should not always succeed if any kind of food would.

A Newly Described Skin Disease.—DR. H. G. PIFFARD said that in the February number of the *British Journal of Dermatology*, 1892, Dr. Thomas Savill described a skin disease which resembled, in many respects, an eczema, but which was afterward found to be much more serious in character and due to a specific diplococcus. It occurred in man and animals. No case having been reported in this country, Dr. Piffard had requested illustrations of Dr. Savill's case, and having received them he wished to show them to the Society. The colored plates of the pathological condition were the best he had ever seen.

Some Observations upon the Action and Value of Hyoscyamin in Nervous and Mental Diseases; Personal Experiment with the Drug.—DR. WILLIAM SPRATLING read the paper. He had been connected for five years past with a State institution for the insane in which were admitted about one hundred acute cases annually, and had had considerable opportunity for observing the effects of hyoscyamin or hyoscin in mental and nervous diseases, especially during the first part of that period. He had many times given one-tenth of a grain of sulphate of hyoscyamin, sometimes one eighth of a grain, but this was before he had had much experience with it. A case which had strongly impressed upon him the possibility of serious consequences of giving large doses was that of a vigorous young Irishwoman who received one-eighth of a grain every eight hours until several doses had been administered, in order to control her maniacal state. Physical restraint was prohibited. She died on the tenth day, and the condition of the blood and circulatory system led him to believe that the poisonous action of the drug had been a potent factor in bringing about the fatal issue.

The reports upon the hypnotic effects of hyoscyamin and hyoscin had been very contradictory. Dr. Spratling believed that their hypnotic influence was only apparent, being due solely to the motor paralysis which they produced. The patients did not sleep, did not obtain mental rest, but were left in the same state of mental excitement after the bodily lassitude or paralysis had passed away.

The author then described the effect upon himself of a hypodermic injection of one-fifteenth of a grain of hyoscyamin into the arm. The first effect was a fulness of the head, objects presented a hazy outline, then he became jolly, laughed immoderately; after many fruitless efforts, succeeded in getting into bed. Pulse and respiration were increased. Pinching his right leg as hard as he could produced only the sensation of pressure by a blunt object. Ten minutes after receiving the drug motor paralysis became complete, commencing with the lower extremities and proceeding upward. Grosser movements suffered first. There was a furry feeling of the mouth; inability to speak; motor and sensory paralysis lasted about four hours, yet at no time did he sleep, at no time become unconscious, but remained for some time in a condition of jolly delirium. Later, however, the delirium became painful, then horrible; then a state of double consciousness set in, in which he suffered from delusions and wild fancies, but still was conscious of his situation. Eight hours after taking the drug all evidence of motor disturbance had disappeared; sensory disturb-

ance left him later. At no time did he sleep. The drug tended to dry up the secretions. Dr. Spratling thought its action went to confirm Dr. Dana's recent experiments which pointed to common centres for motion and sensation. He thought the drug admissible only in chronic diseases of the nervous system.

Dr. Williams had found hyoscyamin and hyoscin hypnotic in small doses, and useful when thus administered in some cases of acute mania, as well as in chronic affections.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

SCARLET FEVER—ITS LOCAL LESION—PATHOLOGICAL SOCIETY—STREPTOCOCCUS PNEUMONIÆ IN CEREBRO-SPINAL MENINGITIS—ROYAL MEDICAL AND CHIRURGICAL SOCIETY—OPERATIONS WITHOUT ANÆSTHESIA—USE AND ABUSE OF ANÆSTHETICS—CHRIST'S HOSPITAL—GENERAL MEDICAL COUNCIL MEETING—THE PHARMACOPŒIA—THE COLLEGES—PURIFYING THE REGISTER—MEDICAL SOCIETIES—EXHIBITION OF LIVING PATIENTS—THE CHANGES THAT OCCUR IN THE URINE IN MYXŒDEMA DURING THE THYROID TREATMENT.

London, November 25, 1893.

Scarlet fever has been so prevalent that a paper on the local lesion read at the last meeting of the Pathological Society (21st) may claim the interest of being timely. The author, Dr. W. Dowson, having pointed out that although endemic in certain areas a very large proportion of the population escaped, all but about five per cent., and the disease was infrequent after the age of sixteen. Searching for a reason of this, he was led to think that the primary local lesion is in the tonsils and cervical lymphatics, general infection occurring through the absorption of toxines. Cases of sore throat and fever occurring during an epidemic he regarded as mild scarlet fever. When primary infection took place through a wound the throat might escape and differences occur according to the tissues involved, hence the variations in surgical and puerperal cases. Further it was suggested that acquired immunity may be merely local, the changes in the tonsil induced by one attack being of a fibrous nature and so preventing the entrance of the toxine afterward. So again the natural development of the tonsil at puberty and over thirty years still further limits the chance of infection. He compared the affection of the tonsils and cervical glands to the chancre and bubo of syphilis, and the intestinal ulcer and enlarged glands of typhoid fever.

Dr. Cayley opposed the theory, and had no doubt that the poison was contained in the skin, and the epidermis continued infective long after the throat was well. More over he had seen many cases in which there was no sore throat, but the acquired immunity was just the same as in those in which the tonsils were much damaged. Dr. Goodall corroborated Dr. Cayley, and remarked that severe nephritis and desquamation were common after the mildest cases.

Mr. Shattock pointed out that younger animals were more susceptible to microbes than older ones, instancing the white rat, which is well known to be susceptible to anthrax when young, while the adult is not. Dr. Dowson in reply, said very young infants were exempt from tonsillar lesion, as they suckled and so the throat was not likely to be wounded by sharp particles of food.

Dr. Kanthack then read a communication on the streptococcus pneumoniæ in cerebro spinal meningitis, and showed the cultures from a case at St. Bartholomew's Hospital which was not complicated with pneumonia or other lesion. Inoculation into mice killed them rapidly, and cultures from the heart's blood of these mice grow more rapidly, assuming true streptococcus form and losing their virulence toward mice. The pneumococcus shown by Dr. Kanthack approaches the streptococcus pyogenes form. But some thirty other varieties have been described!

At the meeting of the Royal Medical and Chirurgical Society, after the question of the Presidency, which I have already noticed, Mr. Keetley read a paper on operations without anæsthesia. This was not an account of the terrors of surgery in olden times but rather a dissuasive from the abuse of anæsthetics and a suggestion that these agents are too commonly employed for minor operations. The author reminded the audience that on the discovery of general anæsthesia its dangers were not at first realized, and that now both surgeons and the public seem to have forgotten what can be done without it. Mr. Keetley had operated in a case of thyroid tumor by the aid of nominal local anæsthesia, and he thought that minute quantities of cocaine acted through the imagination and that some operations, especially in the abdomen, reported as under cocaine, were really of this kind, as also were many under hypnotic influence. He proposed, therefore, that general anæsthesia should not be induced in a strangulated hernia, in the old or debilitated, in colotomy and similar cases when the proceedings can be planned beforehand, in tapping, aspirating, sounding, or even in laparotomy by a small incision for exploration, or perhaps for evacuation of fluid (or even of a simple non-adherent cyst). He considered nitrous oxide appropriate for not a few cases in which ether or chloroform is often given, as simple incisions of any length, encapsuled tumors of any size, if superficial, for refracturing mal-united bones, etc.

Mr. Power related some of his experience in the pre-anæsthetic era when such an operation as enucleation of the globe was very serious. Now in eye operations cocaine locally, five or ten per cent., is sufficient for all, except, perhaps enucleation or abscission. Dentists came most directly in contact with acute pain and he mentioned a personal experience of exhaustion and depression after abstraction of a molar. On the other hand he was once suffering from pleurisy and surprised that the passage of a trocar through his chest wall was painless. Other speakers to some extent supported Mr. Keetley as to many cases, but it was suggested that chloroform was generally necessary for children for operations about the rectum, and some held that only in a very small minority of cases could general anæsthesia be avoided. Others thought we should not resort to general when local anæsthesia could serve—that the latter might be used in strangulated hernia, especially if the patient was aged or exhausted. So, too, in tracheotomy for diphtheria, in advanced phthisis, and in goitre pressing on the trachea local anæsthesia was often sufficient. In reply, Mr. Keetley admitted the use of chloroform in children except for an operation such as that for imperforate anus in early infancy. He said, too, that the Swiss surgeons had generally discarded anæsthetics for operations on goitres.

In reference to the question thus brought forward, I may express a belief that in some quarters general anæsthesia has certainly been too frequently resorted to when local anæsthesia would have done all required. It is curious, too, how little the ether spray has been used by some. It is harmless and effectual for many cases. I have seen it much used for tracheotomy and goitre, and with complete success. It is admirably adapted for incisions, after which a very weak solution of cocaine may be used to supplement it for deeper work, such as the enucleation of encapsuled tumors.

Last month scarlet fever broke out in the Blue Coat School. The scholars were accordingly dispersed and a sanitary inspection of the premises undertaken. This disclosed a most primitive state of the arrangements, and the City Medical Officer of Health has reported, that with a full sense of his responsibility in interfering with such an ancient and important institution as Christ's Hospital (to use its official name), he cannot avoid the conclusion that nothing short of an entire reconstruction of the drainage would suffice to render the school fit for its purpose. Steps have therefore been taken to carry out his recommendation.

London, December 1, 1893.

The General Medical Council met on Tuesday, and is still sitting. Professor Gairdner, the new member for Glasgow University, was received with unusual demonstrations of pleasure. Sir R. Quain delivered his presidential address, indicating the various subjects that demanded the attention of the Council. This address would be interesting if it were not rendered useless by the fact that each subject it touches upon has to be subsequently discussed. It must be strange if a body of learned and distinguished men require a recapitulation of the business of the week before they can begin it. There are so many complaints of the limited time of the Council that perhaps a saving might be effected by the omission of the address. Perhaps the most interesting subject of discussion on your side the Atlantic will be the approach toward an International Pharmacopœia. The medical authorities of India and the colonies have been in communication with the Council as to their wants, and as a new edition of the British Pharmacopœia will be wanted in about a couple of years, it will not improbably be adopted for the Empire as far as the committee can manage. I wonder if America will some day join in this work so as to have a codex for the English-speaking world.

The Dublin College of Physicians claimed to compete with its London sister in granting a complete diploma, but as it never has examined in surgery, the Council referred it to the law courts for an interpretation of its charter.

Wednesday and Thursday were devoted by the Council to their judicial duties under the Penal clauses of the Acts. Certain persons' names were ordered to be erased from the Register. Condemnation of certain proceedings was expressed, and other cases were remitted to the law officers of the Council to prosecute.

A number of returns respecting examinations and other documents came under the consideration of the Council.

The exhibition of living specimens of disease gains rather than loses in favor, and "clinical evenings" at the societies often attract larger audiences than elaborate papers. The last meetings of the Medical Society and the Clinical Society were thus occupied, and at some of the other societies there have been a considerable number of exhibits of this kind.

At the Medical Society Dr. Beevor showed a case which he considered to be syringo-myelia. It was in a young woman, and dated from an illness six years ago, after which numbness of one arm (right) came on, and gradually extended. The numbness is now more marked on the right than the left side. Reflexes exaggerated. Though large tracts of the skin are insensible to pain, the tactile sensibility is preserved.

Mr. Lunn brought a patient who at first glance seemed a child, but was a woman of twenty-six. She was a cretin, idiotic, but had become comparatively intelligent under treatment by thyroids. The same surgeon showed a hæmatoma which succeeded an operation for popliteal aneurism. It is non pulsatile, and he supposed it to arise from the filling of the sac after the ligatures had been applied. If it does not subside with rest and pressure in two or three months, it is proposed to cut down and turn out the clots. Occlusion of the superior vena cava is a nice diagnosis, but Sir Hugh Beevor showed a case which he ventured thus to describe. The cutaneous veins of the trunk are so dilated that there is evidently some obstruction. The condition was noticed some fifteen years ago. Dr. F. Roberts remarked that he once saw a man whose only symptom was intense cyanosis, and at the post-mortem the cava was found obstructed by a fibrous band. He also mentioned a case in which an aortic aneurism burst into the vena cava, setting up such a medley of sounds that a medical man hastily summoned could not account for them—and no wonder.

Mr. H. Fenwick showed a man from whom he had removed a hydatid cyst from the bladder by supra-pubic incision. Mr. Shield mentioned a case admitted for what was supposed to be ordinary retention, but the man passed a small hydatid cyst *per urethram*. The bladder was then emptied, but a tumor remained, which was removed through the perineum. Another case was mentioned by Mr. Ballance, admitted for retention, and a cyst discovered. This was aspirated above the pubis and the patient recovered.

Mr. Ballance also showed a young man aged twenty who had been operated on in September last, at St. Thomas's Hospital, for lateral sinus pyæmia, with rapid recovery. Mr. Watson Cheyne brought again the case he showed last March, of skin grafting for lupus after excision. The result continues good. Dr. Eddowes brought a girl with lichen pilaris symmetrically developed on both legs, and Dr. Pasteur a woman of thirty-two with numerous lines on various parts of the body resembling the lineæ albicantes that follow pregnancy.

Half a dozen cases of pseudo hypertrophic paralysis are not often seen together, but an opportunity was afforded at the Clinical Society, on the 24th, of seeing and comparing that number. Four of these patients were of the same family, under the care of Dr. James Taylor, who showed two of them three years ago, and now brought them again that the progress of the disease might be seen together with the other two. The oldest of the four was twenty-five, and had been affected from the age of eighteen. Two cases exhibited by Dr. F. Hawkins were children of eight and eleven, both belonging to a family of five, the other three not being affected.

A case of osteo arthritis with fibrous nodules over several joints was shown by Dr. Newton Pitt.

Two cases of so called idiopathic sclerosis were brought by Dr. Mott. One, a woman aged thirty, who was seized four days after delivery with numbness of the leg and hand, followed by paresis. Her speech was also affected, and Dr. Mott supposed there was thrombosis of the veins in the leg area leading to the longitudinal sinus. The other case was a man aged thirty-four, with multiple toxic neuritis. He had been admitted with swelling of the right ankle, pyrexia, and pains in the limbs. Soon after blood appeared in the urine and stools, giving rise to a suspicion of typhoid. Next came a rash on the right side, which was followed by paralysis of the same side. The case was then thought to be one of cerebral thrombosis.

Dr. Ord and Mr. E. White then gave an account of some observations they had made in the changes occurring in the urine of a patient with myxœdema while treated by thyroid glands of the sheep. For more than a week before commencing, the diet was carefully analyzed and the quantity registered, and comparisons made with analyses of the urine as to total solids, ash, chlorides, nitrogen, urea, and phosphoric acid. During treatment, the same diet being employed, these investigations were continued. The results showed greatly increased excretion of nitrogen, chiefly as urea, during the use of the thyroids. Very slight increase of chlorides. There was an increase in the quantity of urine, a rise of bodily temperature, and loss of weight. The physical and mental condition underwent rapid improvement, almost amounting to a cure. These observations seem to afford some means of estimating the altered metabolism which succeeds the use of the thyroids. Further experiments will no doubt be made, and I would suggest over a longer period prior to treatment, if only as to urea; for it seems as if the excretion of this body was scarcely equal to the amount that should occur in proportion to the nitrogen in the diet, but that as soon as the thyroids were exhibited an excessive excretion was set up.

Ichthyol.—This remedy may be used hypodermatically (three centigrammes in one gramme of distilled water). Good results have been obtained by injecting it about the vesicles in zona with intercostal neuralgia. The remedy has a certain analgesic power.

A CONTRIBUTION ON THE ORIGIN OF THE NON-RESTRAINT SYSTEM IN THE TREATMENT OF THE INSANE.

To the Editor of the Medical Record.

Sir: The non restraint system was advocated in Germany long before Dr. Gardner Hill and Dr. Charlesworth inaugurated it in the Lincoln Asylum. In evidence of this assertion I beg to call attention to the following extract from a work published in Germany in 1833.

"In mental and emotional diseases . . . an appropriate psychical behavior toward the patient on the part of those about him and of the physician must be scrupulously observed by way of an auxiliary mental regimen. To furious mania we must oppose calm intrepidity and cool, firm resolution; to doleful querulous lamentation, a mute display of commiseration in looks and gestures; to senseless chattering, a silence not wholly inattentive; to disgusting and abominable conduct, and to conversation of a similar character, total inattention. We must endeavor to prevent the destruction and injury of surrounding objects without reproaching the patient for his acts, and everything must be arranged in such a way that the necessity for any corporal punishments and tortures whatever may be avoided."

In a foot-note the author adds: "It is impossible not to marvel at the hard-heartedness and indiscretion of the medical men in many establishments for patients of this kind not only in England but also in Germany, who . . . content themselves with torturing these most pitiable of all human beings with the most violent blows and other painful torments. By this unconscientious and revolting procedure they debase themselves beneath the level of turnkeys in a house of correction."

In this extract non-restraint is clearly advocated, and in awarding the meed of praise the prior rights of this author should not be ignored.

A. B. Eadie.

Buffalo, N. Y.

THE OPPRESSIVELY AUTOCRATIC DOINGS OF THE LUNACY COMMISSION.

To the Editor of the Medical Record.

Sir: About two weeks ago there appeared in the New York *Tribune* an article on the Care of the Insane. That article was laudatory of the State Commission in Lunacy, but was interspersed with what seemed to be authoritative statements made by certain members of that board; and while the main burden of the article related to questions of an economic nature, it was manifest that the plans and methods of the Commission contemplated an interference with the medical and even minor details of the management of the State Hospitals; hence, it assumes a professional interest.

While the writer is not in a situation to know the details of the plan adopted by the State Commissioners in their control of the Asylums, he has observed the current of events in our State institutions long enough not to accept at once a plea for a reduction of expenditures as paramount to other interests, or even as the real motive in all instances in which it is made. From the days of Æsop to the present time, to call attention to a probable error in another has occasionally been the means of withdrawing public attention from our own objects. The commissioners, as public officers, must not feel aggrieved if their own acts be watched and criticised as they profess to be watching and criticising those charged with the local management of the State Asylums.

It would seem that the object of the article referred to, and of certain paragraphs in the public press since seen by me, was to convey the idea that the commissioners were instituting certain reforms, and correcting certain abuses in these State institutions, not only in relation to fiscal affairs, but in what may be regarded as the moral and medical management of the unfortunate inmates. It may then be properly asked: "What reform or movement in advance has the Commission actually instituted?" That supplies should be economically purchased and carefully used is only a business proposition, but that the estimates for the expenditures for the asylums, for a certain month, have been "cut down" even to the extent of $55,000, is not necessarily a meritorious act, for injury may have resulted from the "economy," or even increased future expenditure. In these matters the officers of the several institutions are entitled to be heard as to the necessity for the articles named in their estimates, and no praise is due the commissioners until that evidence is submitted, as well as a detailed statement as to the items on which the saving was effected.

As a matter of fact, has this Commission instituted a single genuine reform in the care of the insane?

Those of us who have watched and studied the development of the asylums for the insane from prisons to hospitals, know how earnestly the matter had been considered and treated from apparently every possible standpoint, and we also know that the actual improvement in the care of the insane has come through asylum officers. Asylum reform began in the asylums, was conducted by the medical officers, and has not resulted from outside influences. Criticism of an individual superintendent, or asylum, by outside parties has constituted only eddies in the current of improvement which has been moving steadily on during the last fifty years. These criticisms served only to mark the progress, not to cause it. Conollyism was an ideal, the details of which required time and patient work before a general and useful application of its principles, and this work was given by the medical officers of asylums. It is eminently true that asylum methods have been reformed from within rather than from without.

The medical supervision of each State Hospital, containing on an average over one thousand patients, requires qualifications of a special and high order. If any of the State hospitals has a superintendent unfitted for his duties, the specific statement should be made and measures should be instituted to secure a change. This would certainly seem preferable to placing all the asylums practically under the control of non-resident officials, who deem it important to interfere in such matters as the use of tobacco, as has been done by the State commissioners. The State hospitals are not penal institutions, and it is apparent that such questions as the use or disuse of tobacco is a matter properly belonging to the local medical officers, and should not be settled by a disallowance of an estimate for that article. It is to be hoped that the public does not approve of such measures of economy, nor do we believe that the commissioners can justify their act on the plea that it is injurious to health; for the allowed list of articles includes such stimulants as tea and coffee. The use and the abuse of an article are distinct ideas. The present position of the resident medical officers of our State hospitals seems little better than that of clerks appointed to enforce the ideas of an autocratic board. Favorable opportunity for the exercise of individual talent by the eight superintendents in the State in the solution of problems in psychiatry is removed.

So far as can be judged by public acts, no true reform has been instituted br the State Commission in Lunacy. The effort to utilize the labor of the patients, as an economic factor in asylum management, is only new in the apparent purpose to render it compulsory, as in the prisons. "Sew and make your garments, or you shall not be clothed," would seem to be the edict. For a long time systematic work by a portion of the patients has been regarded as a curative and otherwise useful means of treatment, and doubtless it has been used as fully as was practicable for proper purposes. The time has hardly come—rather, is past—for using forcible measures to secure work from the inmates of our asylums which may yet be justified in our penal institutions.

Having no interest in this question aside from that

which belongs to every citizen of the State, except a pride in the noble professional and humanitarian work done in our State asylums by the medical officers, I can speak without bias from a partisan standpoint, and it is my sincere conviction that the present plan of State supervision is unwise. Though the present Commission may give a safe and even useful application of the law, enough has already been done by them to show that the plan is dangerous, in that it is susceptible of development into an autocratic control of persons who should be free to act, until it is shown that they are unfitted for their posts; when they should be removed instead of being restrained and controlled by the rules of the Board.

If the plea for honor through a useful lessening of expenditures is to be made, then by all means let us have the items by which the saving is secured, and let these items be criticised by the aid of the statements of those who made the estimates, after giving the reasons for asking the allowance.

Further, it does not seem that the moral influence of the Commission will be enhanced by such general statements as that a number of persons have been maintained at State expense by being improperly included in the "families" of asylum officers. If there has been fraud on the State it should be dealt with in a proper way, and not condoned by decreeing that it shall not continue. The interests are too important and delicate for such coarse methods.

Each citizen of the State must feel that this subject may have a personal importance, for there is always the liability to the occurrence of insanity in some friend or relative. Shall the care of that person be under hospital or prison methods?

My letter is written solely in what I deem to be the interests of truth and right, for I have neither a personal cause to defend nor an enemy to punish.

E. D. FERGUSON, M.D.

TROY, N. Y., December 9, 1893.

SHOULD WE TREAT IMPOTENCE?

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: It seems to me that such sophistry as that contained in Dr. Waugh's answer to the question: "Should Impotence be Treated?" (MEDICAL RECORD, December 2d, p. 736) ought not to go unchallenged. The fear that our patients may not use their various organs to the best advantage morally is no reason why we should decline to heal their bodily infirmities. When a patient comes to me suffering with chronic gastritis, brought on by worshipping too ardently at the shrine of Bacchus, I do my best to restore his physical ailment, with a gratuitous lecture on Temperance, if I think it worth while. It is not the physician's business to felicitate his patient upon the loss of a physiological function, or *a priori* pass sentence upon his dejected, spirit-broken, and unsexed client for crimes yet to be committed. The physician should be a physician first, and a moralist afterward. I recall a case of vaginismus which came under the care of the late Professor J. Ford Prioleau, during my service in the Charleston City Hospital. The woman was a prostitute by profession, but Dr. Prioleau in speaking to the class of undergraduates before him said, that although the woman would probably resume her immoral mode of life if cured, that was no reason why he should decline to restore her, so far as he was able, to her normal condition. No one who knew Dr. Prioleau ever questioned his purity of mind or character. I think the views expressed by Dr. Waugh at variance with the objects of the medical profession, and should be repudiated.

Yours truly,

J. M. HAYS, M.D.

GREENSBORO, N. C.

Pertussis.—The severity of the paroxysms may be often relieved by using a drachm of hydrogen peroxide in a little glycerine and water four or five times daily.

New Instruments.

A CASE SHOWING HOW A LOST INTUBATION TUBE WAS POSITIVELY LOCATED BY MEANS OF AN ELECTRICAL SEARCHER.

BY J. MOUNT BLEYER, M.D.,

NEW YORK.

LARYNGOLOGIST TO THE WEST SIDE GERMAN CLINIC, ETC.

IN describing the electrical searcher devised by me for the location of intubation tubes that may have accidentally slipped down into the larynx or the air passages I desire also to give a brief report of a case in which such an accident happened, and in which I successfully located the lost tube with my electrical searcher after all other known means to do so had been ineffectually tried. It was the first time I lost control over a tube, in some five hundred and forty cases of intubation of the larynx, which I have had the good fortune to do within the period of six years. Nevertheless, such an accident may happen to me again, in fact it may happen to anybody who practices the operation of intubation.

Not long ago my colleague Dr. Derleth called me to see one of his patients, a little girl three years old, who was suffering from a severe case of stenosis of the larynx due to acute laryngitis, which had resisted the most vigorous treatment and had become very alarming.

Nothing that had been tried relieved the symptoms of gradually increasing dyspnœa, and we decided upon tubing the larynx. The tube ordinarily suitable for a child of that age was found upon introduction to be two sizes too small, perhaps on account of the distention of the larynx. Another, to all indications of the proper calibre, was introduced and immediately the dyspnœa became relieved. This tube was left in place four days, and as the child had made such a good recovery I decided to remove it. To my surprise on searching for the head of the tube with my finger I could discover no trace of it, although I readily mapped out the space of the larynx and could feel the vocal bands. There was but one inference to draw and that was that the tube had slipped down and was lodged somewhere below the vocal bands. The respiration was undisturbed and for a long time I was puzzled as to what had become of the tube, but from the tubular character of the inspiration I was led to believe that the tube was still in the vault of the larynx.

But there was nothing that the examination recalled to substantiate my suspicion until I probed with a metallic staff bent to a shape to accommodate its passage below the vocal bands.

To make doubly certain I next searched the bed-clothes and deferred further exploration until a large dose of castor-oil had been administered and its effect observed, so as to exclude the possibility of the tube having been swallowed and lodged in the intestinal canal. A free examination of the bowels revealed nothing of the tube.

Dr. F. S. Dennis was summoned, and the advisability of making an exploratory opening in the windpipe was discussed. Dr. Dennis advised against such an operation unless a positive diagnosis of the location of the tube was arrived at. At his direction the patient was removed to St. Vincent's Hospital, where the facilities for operation were better. All through the consultation I insisted upon the tubular breathing as being diagnostic of the position of the tube in the vault of the larynx under the vocal bands. While Dr. Dennis was inclined to agree with me he nevertheless refused to resort to operative measures until that point had been settled beyond peradventure, and it was then, taking thought of the metallic character of the obstruction, that the idea of the electrical searcher occurred to me, and I hurriedly proceeded to rig up the instrument which located the tube as I had insisted after the bullet probe searcher had been used, and which I shall now describe.

On the opposite page I append a rough sketch of my instrument, which will give you some ocular idea of its shape

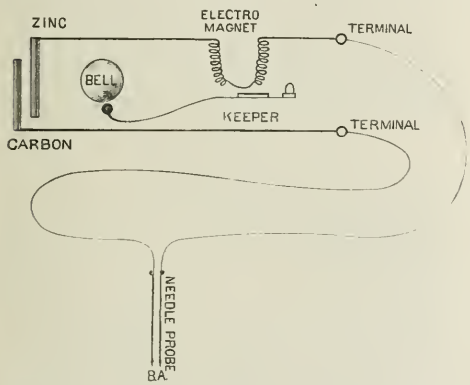
The apparatus consists of three parts, 1, the battery; 2, the alarm and bell; 3, the searcher, together with their accessories.

Perhaps it would be best to describe the parts in detail, by themselves.

The battery was an ordinary vulcanite cell, with zinc and carbon plate in a solution of sulphate of mercury, both plates being invested in separate compartments in the anterior portion of the cell, where they impinge upon platinum springs which are riveted to conductors on the outside of the cell from both positive and negative poles.

The zinc and carbon are interchangeable, it being immaterial which way the current travels through the apparatus. The poles of the battery come into contact with the conductor of the bell at the top of the partition, and it is necessary that the metallic surfaces should be clean, as any film of dirt or oxide would impede the passage of the current.

The Alarm.—This consists of brass strips or conductors mounted on an insulating bed of vulcanite which proceeds from the poles of the battery to the binding screws or terminals which stand on the partition to the right of the bell. One of these conductors on its route has the form of silk-covered wire wound many times around pieces of soft iron, which together form an electromagnet. It is on the immediate right of the bell. The



instrument electrically considered is thus far complete and may be tested by establishing communication between the two terminals or binding screws with a knife-blade or any other metallic conductor, thus completing the circuit. As the current passes the iron is magnetized. The keeper to which the hammer of the bell is attached is attracted, and a stroke is given to the bell. We may thus know, before using the apparatus, that the battery is in action and all metallic contacts clean and in reliable working order.

I now come to the description of the searcher, which is the surgical portion of the apparatus. It consists of two pointed steel needles, A and B, firmly fixed in an ivory handle from which they project about four inches. They are kept insulated from each other by a strip of vulcanite lying between them, while between the points and the handles the wires have a slender vulcanite tube passing over them which is screwed into a short length of tubing made of German silver, upon which is mounted a small shield. The tubes thus screwed together are free to slide to and fro about half an inch and may be pushed forward by slight pressure of the second finger upon the shield and thrown back by a spiral spring, which obtains purchase upon two screws inserted in the ivory handle through slots in the German-silver tube. It will be seen, after a few moments of study of the sketch which I have made, sacrificing artistic beauty to diagramatic simplicity, that the needle probe has the current laid on but broken at A and B (the point of the probe); it is now apparent that upon introducing the needle probe into the tissues, upon touching a metallic substance, such as the intubation tube, it will supply a bridge for the current to pass from A to B, thus throwing the keeper into action and ring the bell, signifying beyond doubt that the points of the needles had impigned upon a metallic body, in this case the intubation tube.

The Method of Using the Searcher.—The probe is handled precisely as one would hold a pen, in the right hand, and with the left the integument over the trachea is tightened and the needle points are thrust into the trachea between the cartilaginous rings.

It may be necessary to make several exploratory punctures before the obstruction is reached.

In the case upon which we operated, if I remember right, we received the signal from the bell upon the second puncture, which marked the exact location of the tube. Right here let me mention that I have devised also a probe searcher, consisting of a long flexible catheter with metallic points and sides, which may be used for the location of foreign metallic bodies through the mouth.

Immediately upon receiving the signal from the bell tracheotomy was performed low down, and the tube, which was found in the vault of the larynx directly under the points of the needle probe, as I suspected, was withdrawn.

While the operation, in every one of its stages so successful, had led us to hope for a happy result, nevertheless the patient died seventy-four hours afterward from pneumonia.

118 East Sixteenth Street.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending December 9, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	10	5
Scarlet fever	86	5
Cerebro-spinal meningitis	4	3
Measles	223	15
Diphtheria	189	64
Small-pox	13	4
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

The Value of Tropacocaine.—Dr. C. A. Veasey, of Philadelphia, says of this substance (*N. Y. Medical Journal*): "The palpebral fissure was somewhat enlarged, as is the case with cocaine, but at no time did I observe any ptosis. I have used it in some minor operations, but do not like it any better than the ordinary cocaine solutions; and as the price of the preparation is so high—being about forty cents a grain wholesale—it is hardly probable that it will come into general use. For removing foreign bodies from the cornea, or for making strong astringent or caustic applications to the cornea or conjunctiva, it is preferable to cocaine on account of its feeble and infrequent action upon the accommodation, thereby preventing the annoyance of a hazy vision for a time; and in cases of keratitis, when an anæsthetic must be employed, it is to be preferred, as it does not diminish to so great an extent the blood supply. For other purposes I have not found it superior to the cocaine hydrochloride in general use."

Malacine.—*Les Nouveaux Remèdes* for October contains an article relating to this new drug. Dr. A. Jacques, of Bâle, has made a study of the therapeutic and physiological action of malacine, and finds it an excel-

lent remedy in rheumatism and neuralgic affections. As an antipyretic it is superior to any other of the preparations of this series. It is especially suitable to protracted febrile conditions, where it is essential that the remedy shall not be depressing. It is derived from the salicylate of phenacetin. It appears in small crystals of a pale-yellowish color, insoluble in water, but soluble in warm alcohol. The stomach will retain the medicament when no other drug can be borne. It is particularly indicated in cases where the temperature is high and the heart much enfeebled. In rheumatism it can be given almost indiscriminately for a long period without any untoward results. In the treatment of habitual headache the remedy can be prescribed without regard to idiosyncrasies. The dose is from twenty to thirty grains, and the physiological effect continues for about six hours.

A Medical Society Report.—A British journal has published the following:

Royal Pimple Curing Society.

Dr. Makem-Pay, President, in the Chair.

Dr. Cutemout related the case of a patient who had for some years past suffered from a very painful and interesting complaint. Not having the notes of the case before him he was compelled to speak from memory; and unfortunately the symptoms had long since been forgotten. The etiology of the disease was very obscure, and he proposed to deal with this more fully on a subsequent occasion. As to treatment, he had found it necessary to employ a great number of remedies, and when last seen the patient reported himself as improving—he was unable to say under which particular treatment. He had since lost sight of the patient, and could not therefore say whether the improvement had been maintained. Dr. Swindem expressed the great interest he took in the case so clearly brought before the Society, and asked for further details, particularly as to whether the bowels were regular. Dr. MacAdamised said he had met with a similar case in his private practice, in the person of a wealthy American gentleman who, after having been treated by all the leading specialists of Europe and America, recovered in the course of three days in his private hospital at 24 Pignony Street, W. Mr. Herringfry proposed a vote of thanks to the author for his interesting paper.

The Woes of Infants.—There are few points on which the doctrine of the liberty of the subject is carried to such extremes as in regard to the treatment of infants. "Shall I not do as I will with mine own?" and what is more a woman's own than the baby she has borne? And so it happens that, under the cloak of mother's love and maternal responsibility, cruelty is done and crime committed which in no other relation of civilized life would be permitted for a moment. Every week we receive reports of inquests on infants who have been "done to death" by the indifference, the carelessness, the ignorance of mothers; and these do but represent the more flagrant cases—a mere percentage, it is to be feared, of the preventable infantile mortality of the country. The sour and fetid feeding-bottle; the carelessly cooked and improper food; the giving out to nurse to reckless people, whose only aim is to gain as much and spend as little as may be over the unfortunate hired-out infant; the dosing of the sickly, and therefore fretful, child with poisonous infants' preservatives; the final overlying during drunken slumber—all these are modes of torturing and killing infants, which are excused as due to ignorance and not to crime. These forms of child murder—done calmly, coldly, and with acquiescence, if not calculation—but rarely meet with punishment, while often earning the solid consolation of the insurance agent; and yet the poor woman who unexpectedly becomes a mother, and, aghast at the horror of her position, with brain blanched by hemorrhage, and with mind incapable of intent, throws her child, in an access of wild terror, into a ditch or down a privy, she, poor wretch, is held guilty of murder. Surely the parents who bring into the world child after child only to lose them by diarrhœa, marasmus, convulsions, rickets, and other diseases due to ignorance and neglect, are guilty in greater degree. It ought to be recognized that woman's work during the child-bearing period of her life is to look after her children, and that the proper way of doing so is to suckle them. To rear children artificially with safety requires more time and care than does mere suckling, but it is for the very sake of saving time and lessening care that nursing is neglected, and, in a large proportion of the cases, this is the root of children's ailments. We suppose it is idle to preach on this text, it has been done so often and with such small avail. Probably the cheapness of female labor is at the bottom of a great deal of the mischief. However slack the trades for men may be, there is almost always work for women if they will take the price, which they mostly do; and thus we see the absurd spectacle of women, in the intervals of bearing and burying a tribe of children, sewing, charing, washing, or going to the factory, besides keeping the house together, working for the purpose a daily sixteen hours, while the lords of creation are doing perhaps three days' work a week, or perhaps are out on strike for an eight hours' day. And yet women marry! Evidently we are suffering from a want of correlation between the evolution of man and the progress of what we are pleased to call civilization. New conditions require new men; whereas man still retains within him the instincts of the savage, which are sexual. The man of to-day ought not to marry untill he has reached a time of life when he has been able to put by for a home; and those who know how far man yet is from such perfection will recognize how many woes the babies of the future are likely still to bear.—*The Lancet.*

BOOKS RECEIVED.

New Truths in Ophthalmology. By G. C. Savage, M.D. 12mo, 652 pages, illustrated.

Healthy Hospitals. By Sir Douglas Galton. 8vo, 287 pages, illustrated. Macmillan & Co., New York. Price, $2.75.

Twenty-fourth Annual Report of the State Board of Health of Massachusetts. 8vo, 806 pages.

The Diseases of Childhood (Medical). By H. Bryan Donkin, M.A., M.D., Oxon., F.R.C.P., East London Hospital for Children, at Shadwell; Physician and Joint Lecturer on Medicine and Clinical Medicine, Westminster Hospital. 8vo, 440 pages. Muslin, price, $4.00. William Wood & Co., New York.

Ophthalmic Nursing. By Sidney Stephenson. 12mo, 188 pages, illustrated. The Scientific Press, London. Price, 3s. 6d.

A Laboratory Guide in Urinalysis and Toxicology. By R. A. Witthaus, A.M., M.D., Professor of Chemistry and Physics in the Medical Department, University of the City of New York; Professor of Chemistry and Toxicology in the Medical Department, University of Vermont; Member of the American Chemical Society and of the Chemical Societies of Paris and Berlin, etc. Third Edition. Oblong 12mo, interleaved, one colored plate. 102 pages. Muslin, price, $1.00. William Wood & Co., New York.

The Medical Students' Manual of Chemistry. By R. A. Witthaus, A.M., M.D. Fourth Edition. 8vo, 543 pages, illustrated. William Wood & Co., New York.

The Students' Dictionary of Medicine and the Allied Sciences. By Alexander Duane, M.D. 658 pages. Cloth, $4.25; half leather, $4.50; full sheep, $5.00. Lea Brothers & Co., Philadelphia, Pa.

A Manual of Diseases of the Nervous System. By W. R. Gowers, M.D. Second Edition. Vol. II., 8vo, 1069 pages. P. Blakiston, Son & Co., Philadelphia, Pa.

Asiatic Cholera. By A. J. Wall, M.D. 8vo, 194 pages. H. K. Lewis, London.

Medical Record

A Weekly Journal of Medicine and Surgery

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Original Articles.

CHOLECYSTENTEROSTOMY BY MURPHY'S BUTTON.

CASES OF

I. CARCINOMA OF THE DUODENAL PAPILLA—OBSTRUCTIVE JAUNDICE—CHOLECYSTOTOMY—PANCREOTOMY.
II. PANCREATIC CYST FROM A CALCULUS—IMPACTION REMOVED BY MANIPULATION.

REPORTED BY ROBERT F. WEIR, M.D.,

PROFESSOR OF SURGERY, COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

THE following case, from the comparative rarity of the affection and from the unusual surgical incidents connected with it, warrants its presentation this evening to the Practitioner's Society.

A man, aged thirty-five, a laborer, and of a marked alcoholic habit, was admitted to the medical division of the New York Hospital, February 24, 1893, for the treatment of jaundice. During the eleven days he was under medical supervision and treatment he had four chills, with a temperature running up to 104° and 105° F., in the interim falling to 100° F. On March 7th he was transferred to the second surgical division of the Hospital for an exploratory operation. The history that he gave was that he had been perfectly well until seven weeks previously, when he noticed that he was becoming yellow and that he began to have chills every day or two, with sweating at night, and a decidedly and rapidly progressing weakness. He had never had an attack of jaundice before, nor had he had any paroxysm of hepatic colic.

About two and a half weeks ago, after spreeing for a week, he began to have pain over the region of the liver. This pain has been severe and constant since that time, and the jaundice has been steadily increasing. He has had no nausea or vomiting, no epistaxis or itching of the skin. His appetite has been very poor for the last week. The pulse has been regular, and the stools have been very light in color. On admission into the surgical ward his temperature was 101° F.; respiration, 20; pulse, 88. The liver was enormously distended, extending downward to within an inch and a half of the umbilicus. The edge of this organ was distinctly felt, but no abnormal irregularities were made out on it. The gall-bladder could not be distinguished. The spleen was enlarged, the abdomen was full, tense, and tympanitic in the flanks, and some tenderness existed in the hypogastrium. The patient was decidedly anæmic, though fairly nourished and in a tolerably good condition. The jaundice was very marked, and of a deep golden color. Urine acid, 1.016, slightly albuminous, and deeply stained by bile, which gave the reaction of bile pigment under testing. A few hyaline casts were also found.

It was evident that an obstruction existed in the gall-passages, probably in the common duct, but whether it was due to a concretion impacted there or to a neoplasm, could not be determined. The enlargement of the spleen, according to Naunyn, is not met with in neoplasms of these passages. This, however, is a point upon which I did not feel able, from personal experience, to place any clinical importance.

On March 8th, under ether anæsthesia, an incision parallel to, and two and a half inches below, the free border of the ribs on the right side, some five inches long, was made, opening first the peritoneal cavity at the outer edge of the rectus muscle. Through this opening the liver was found, as had been previously made out, very large, smooth, and of a very deep color. The gall-bladder was recognized to be quite distended, but deep in the abdominal cavity, and pushed from the parietes by the enlargement of the liver. The deeper part of the wound was enlarged outward through the abdominal muscles, the rectus on the inner side cut through partially, the lower edge of the wound drawn downward, and a good view of the liver and gall-bladder obtained. This latter could be traced beyond the cystic duct, but further it could not be recognized. The gall-bladder was then aspirated and some five or six ounces of light-green colored watery bile were withdrawn. The aspirator wound was then enlarged, and the finger introduced and carried to its full depth revealed nothing. An ordinary urethral sound, No. 12 in size, was then introduced and carried farther in beyond the cystic duct, but nothing was detected, nor could it or a smaller instrument with varying curves be passed to any depth along the common duct. This exploration of the gall-passages by a sound, as is well understood, is more frequently followed by disappointment than otherwise, though I have succeeded in several instances, after the removal of gall stones, in carrying the instrument into the duodenum and thus satisfied myself of the patency of the whole canal. In this instance, with the hand in the free abdominal cavity and the sound in the gall-bladder, it could not be felt within an inch or an inch and a half of the duodenum. It was there arrested, nor could the common duct beyond that point be recognized. Palpation of the duodenum itself, and the region wherein the common duct was supposed to be, or of the parts adjacent to the duct and intestine, gave no evidence of the presence of any stone or tumor.

In this examination, however, it was recognized that the pancreas was distended to about three times its normal size, being, I should say, over three inches in vertical diameter at its head, and the size of the wrist as it stretched off well beyond to the left of the median line. No nodules or undue hardness of this gland were made out, but at its head a soft fluctuating mass was recognized, from which, on the insertion of a hypodermic needle, a clear, fluid-like normal pancreatic secretion was extracted.

In the hope that the sound or bullet-probe introduced at this point might pass into the duct of the pancreas and either discover a possible obstruction calculus in this duct, or in the papilla of the ductus communis, a small incision was made into this pancreatic distention and from two to three ounces of clear, slightly opalescent fluid were evacuated.

The exploration conducted through this opening, however, revealed nothing of a calculous nature. Neither the probe nor small sound could be carried into the duodenum. The cavity of the pancreas into which the probe passed was about the size of a hen's egg. These explorations occupied considerable time, a part of which was due to the arrest of the free oozing that came from the pancreatic incision. The bleeding here, however, while obscuring the exploration, was very easily checked by a tampon introduced into the little wound. Though nothing of a calculous nature was felt by these explorations, nor by palpation through the duodenal walls, it was proposed, in order to make the exploration a thorough one, that the duodenum should next be opened. But the pa-

[1] Read at a meeting of the Practitioners' Society, November, 3, 1893.

tient's condition showed that further operative procedures could not be safely continued. A glass drainage-tube was, therefore, carried into the pancreatic cyst, or rather distended pancreatic duct, and between this and the pancreatic wound a portion of iodoform gauze was packed in so that hemorrhage was readily arrested. The incised gall-bladder, now flaccid, was sutured to the parietal peritoneum by a number of fine, black-silk sutures, and into the gall-bladder another glass drainage-tube was passed, to which was attached, as was also to the pancreatic tube, portions of rubber tubing, so that drainage from these two organs should be safely carried beyond the reach of the external wound. A strip of iodoform gauze was also carried outside the gall bladder, and the abdominal wound closed by deep and superficial sutures. The wound was then protected as much as possible by strips of gauze moistened with collodion for a considerable distance beyond the line of incision. Through the applied aseptic dressing were conducted the rubber tubes, the distal ends of which were placed in bottles partly filled with an antiseptic fluid.

The bile, of a more brownish color, flowed freely the first twenty four hours from the tube in the gall bladder, and it may be briefly stated that for seven days the discharge from the gall-bladder was extremely free, running from ten to twelve ounces daily. For three days following, *i.e.*, up to the tenth day, it began to diminish, and it finally fell to four ounces per diem. During the first day after the operation comparatively little fluid escaped from the pancreatic tube, or, at least, it was not recognized. After that time from four to six ounces a day es caped. Within the first forty-eight hours after the operation the patient suffered a great deal from hiccough, which demanded the free use of morphine to quiet it, but on the fourth day, suspecting that the pressure of the drainage-tube might occasion this difficulty, the tube was withdrawn from the pancreas, whereupon the hiccough ceased. No symptoms of peritonitis ensued, though the passage of the pancreatic fluid, of necessity, after the removal of the tube, ran through a considerable tract within the abdominal cavity. As the glass tube running into the pancreas was perforated throughout its entire length, it is fair to infer from the beginning that more or less pancreatic fluid must have been in contact with the peritoneal surface. This only supports what has been observed in experiments upon animals, not only in reference to the pancreatic fluid, but also in reference to the bile, that when in a normal condition such secretions are not infectious nor irritating to the peritoneal cavity.

I was conscious that in my operative attempts to relieve this patient I had so far increased his jeopardy by bring ing about the escape from his body of such a large amount of pancreatic secretion; but I hoped that, as he had for an unknown period of time—certainly several weeks—been already deprived by the obstruction of that secretion in its intestinal uses, its escape might not be of great moment to him, and possibly, as in openings in the duodenum where such secretions have escaped (though not totally, it must be admitted), so here the process of repair would, as in the intestine, gradually close the opening. Moreover, Senn [1] had on this point stated that complete obstruction of the pancreatic duct would be followed by glandular degeneration and arrest of the physiological function of the organ.

The patient did fairly well for a time under this great loss of two important secretions. His jaundice was rapidly disappearing, as was to be expected, when emaciation and a decided deterioration of strength began to show themselves. The stools still continued clay-colored and were found to contain large amounts of free fat. No chills had recurred, nor at any time had his temperature gone above 100° F. He took a tolerably good amount of nourishment. The color of the urine had improved and there was no reaction to the ordinary test for bile pigment. The examination, made several times of this pancreatic fluid by Professor W. Gilman Thompson, showed that the fluid possessed very remarkable digestive activity; that it emulsified fat, formed peptones from meat, and converted cooked and raw starch to sugar with great promptness. This deterioration of the patient's condition, after it began, advanced so rapidly that I felt that I was justified in making the attempt to conduct one or both of these secretions in some expeditious manner into the intestinal tract. I first, however, wished to know whether the bile-discharge contained pancreatic fluid or not. This was possible if the obstruction existed at the duodenal papilla and left free a communication between the pancreas in a reverse direction through the common duct to the gall-bladder and out from my drainage-tube. A specimen of this fluid was also examined at this date by Professor Thompson, with the report that it contained no pancreatic juice at all; that it digested cooked starch a little, and emulsified fat very little, but had no action on raw starch at all, nor did it form peptones. What feeble digestive power it had is often to be found in the bile. And he further says, if any trace of pancreatic juice were

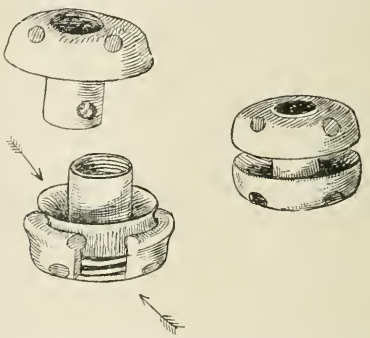

Fig. 1.—Murphy's Button. The button-like expansions are pushed into the incised intestine and gall-bladder, for example, and secured by a purse-string suture. The cylinder of the lower button passes within the upper one. Two teeth projecting inward in the lower cylinder catch in the threads inside the upper cylinder, when they are pushed together and prevent any separation of the compressed intestine and gall-bladder. The ring at the upper arrow indicates the ring that regulates this compression. The lower arrow points to a gap left to better demonstrate the regulating ring.

present, it would be more active. Had pancreatic juice been present a very simple communication could be established with the intestine and in a very rapid manner by employing the device suggested by Dr. Murphy,[1] of Chicago, and which I now show.

Not finding this secretion in the biliary discharge it was felt that the surgical procedures would demand either that the establishment of a fistula between the intestine and the pancreas should be made, if possible, or that the opening in the pancreas should be closed by firmly applied sutures and a solid tamponade. The practicability of establishing a pancreatico intestinal fistula was based only upon the fact that quite a large cyst-like dilatation of the common pancreatic duct was found at the first operation and of a size sufficient to admit one end of the Murphy button, when the other being placed in the opening of the adjacent intestine, the two could be forced together and the fistula rapidly completed.

In this judgment my colleague, Dr. Frank Hartley, concurred. On the tenth day the patient's condition was one of considerable weakness, but with a pulse of 92, and temperature 99½° F. Under ether the abdominal wound was opened, the recent adhesions separated, and the opening into the pancreas rapidly reached. The cavity which had existed at the last operation had so contracted that nothing more than a dilatation sufficient to admit a No. 14 sound, English, existed. The pancreas itself had shrunk nearly to its normal size; considerable hardening, however, existed along its head, and was suggestive of an infiltrated neoplasm. The possibility of establishing an intestinal fistula with the pancreas was therefore abandoned, and the opening into this organ stitched up

[1] Senn: Surgery of the Pancreas, 1886.

[1] Medical Record, December 10, 1892.

with deep and wide-reaching sutures. This part of the wound was then firmly packed from the line of suture to the surface with iodoform gauze.

Though it was well known to both Dr. Hartley and myself that patients with biliary fistulæ can discharge externally, without apparent detriment to health, a large amount of bile,[1] in one instance two hundred and thirty grammes for eight years, and also that the closing of the pancreatic opening, even though it healed, would not help the secretion of that organ to get into the intestine, it was considered, under the present serious conditions, it might be of benefit to pour the secretion of the liver into the intestinal tract. This was accomplished rapidly by separating the opening of the gall-bladder from the abdominal wall and inserting into it one of the portions of a Murphy's button, and placing the other portion of the

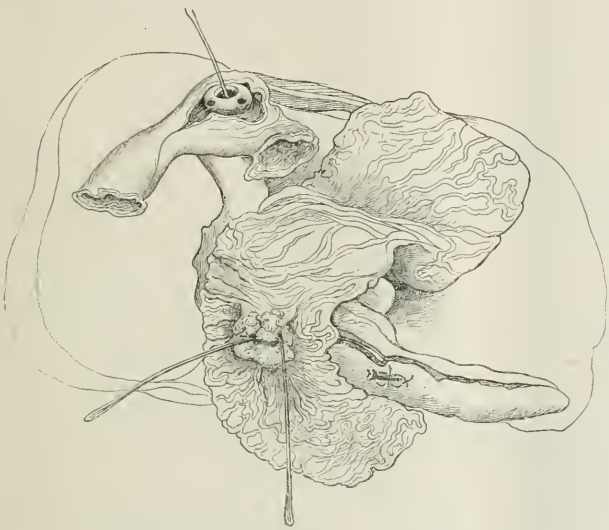

Fig. 2.—Obstructive Carcinoma of Duodenal Papilla. Probes have been carried through the (post mortem) dilated papilla (1) into the slit-opened pancreas and (2) through the common duct and gall-bladder, emerging at the cholecystenteric fistula established by means of Murphy's button.

button into a slit in the upper part of the jejunum, after which the flanges[2] of these buttons were held *in situ* in the intestine by a purse suture introduced prior to the incision and which closed the incisions tightly against the projecting cylinders; pressing the two projecting portions of the button one into the other, a proper approximation was made, and the fistula completed. The actual time in making this part of the operation did not exceed eight or ten minutes. The abdominal wound was then closed, as in the previous operation, save where the strip of gauze and pancreatic suture emerged. The patient's strength, during the first part of the operation, held out fairly well, but at the end of the surgical procedure he was much exhausted and gave but little hopes of long surviving; in fact death ensued within two hours after the completion of the operation.

The specimen obtained at the autopsy revealed a small, soft tumor, 3 ctm. in length, the longest diameter being parallel with the axis of the gut and rising slightly above the level of the intestinal mucous membrane. It presented a general cauliflower appearance (see Fig. 2), and on subsequent microscopical examination was found to be a carcinoma. The duct at this point at first was thought to be impervious, but after manipulation a plug of thickened bile and mucus escaped through the tumor, after which a probe could be passed, with some difficulty, from the cystic and pancreatic ducts into the interior of the intestine. Both the common hepatic, as well as the pancreatic, duct were very much dilated and thinned. The proximal third of the pancreatic duct was remarkably dilated, the head of the pancreas was hard and did not appear to be encroached upon by tumor tissue. The body of the pancreas, and also the tail, appeared to be normal on section. The liver was stained from the coloring matter of the bile, its ducts were dilated, and through all the organ there was an increase in connective tissue. There was one small white nodule found on the under surface of the left lobe, 1 ctm. in diameter. At the autopsy the apposition produced by the use of Murphy's button was found to be in a satisfactory condition.

In connection with the foregoing case I venture to present to the notice of the Society another in which a pancreatic cyst was inferentially due to a calculus in the duct of that organ.

II. Pancreatic Cyst from a Calculus—Impaction Removed by Manipulation—Mrs. H. L——, aged twenty-seven, was referred to me by Dr. Dingman, of Spring Valley, N. Y., February 27, 1888, with a history that up to two years ago she had been in good health when an attack of cramp like pain began in the abdomen, which lasted intermittently for a period of four months and then ceased. Eight months ago these attacks were repeated, coming on in precisely the same way as the first ones. They did not last long, only one of them continued for several hours. Four months ago she noticed the rather sudden appearance of a hard, tense swelling in the upper part of the abdomen. This continued to increase in size for three days, when, during the night, without apparent cause, it suddenly disappeared, and a considerable quantity of fluid was, within the next twenty-four hours, discharged from the bowels. No constitutional symptoms followed, except weakness and loss of strength. Sixteen days ago the tumor reappeared in the same place as the first time, and it slightly increased in size for six days, when it was tapped and a pint of dark, wine-colored fluid was withdrawn. A specimen of this fluid was submitted to an examination by Professor W. Gilman Thompson and pronounced by him after a number of tests to be pancreatic. The tumor has since remained of the same size.

During the past eight months the bowels have been constipated, but the fæces have been of a dark-brown normal color.[1] The patient has not noticed any change in the power of digesting fats. On admission her temperature was 102° F.; pulse, 100; urine free from albumin and sugar. On examination the abdomen was found to be considerably distended, with the swelling more prominent on the left side, and situated well above the umbilicus. The tumor was very globular, tolerably well defined, tense, and presenting an indistinct wave impulse. It was dull on percussion, and no change in the percussion-note was observed when the patient was moving about. An aspirating needle withdrew fluid which had the characteristics on examination by Professor Thompson as follows:

Color of a dark brown-red; on dilution with an equal bulk of water it gives the color of hæmoglobin solution; strongly alkaline; specific gravity, 1.014; somewhat fetid in odor; well-marked viscidity; bile pigment absent; no peptones present; neutral oils were emulsified by it; albumin and egg-albumin were slightly and feebly digested; raw starch unaffected, cooked starch thoroughly converted into glucose; albumin present in slight amounts. Microscopical examination showed numerous leucocytes

[1] Courvoisier, Pathologie und Chirurgie der Gallenwege, 1890, cites instances of total escape of bile through a fistula for periods of two to twelve years, yet, generally speaking, such complete flowing brings speedy death.

[2] Vide Dr. Murphy's paper, loc. cit., Figs. 2, 3, and 4.

[1] Walker, of London, maintained that pancreatic secretion was necessary to produce the usual dark-brown coloration of the fæces, since bile only tinges these of a light brown. The case above narrated goes against the idea.

and large, round cells containing protoplasm and pigment. Few small crystals appeared, apparently phosphates; no red blood-corpuscles. Diagnosis, pancreatic fluid.

The next day, February 20th, she was put under ether, and at the examination before the exploratory incision was made, it was noticed that the abdomen was unusually flaccid, and only a deep obscure mass could be recognized in place of the tumor which had been readily felt the day before, when quite a thorough examination had been made by several surgeons. Nevertheless, a small two-inch incision was made in the median line well up above the umbilicus and two fingers introduced. No fluid tumor could be felt, but in the situation of the pancreas was a mass, apparently as large as the two fists, which extended across the median line, more prominent on the left side than on the right, quite hard in consistency but no irregular nodules of undue hardness were felt in it. The cyst was supposed, from this examination, to be due to either a calculous obstruction of the pancreatic duct, which at times completely closed up the exit of the ordinary secretion, or else to a neoplasm exerting a similar influence. The abdominal wound was closed up, the patient made a prompt recovery, and returned in due time to her home.

From that time to this, five years, she has been under observation, and up to several months since, when last heard from, she has been in good health, without a recurrence of the tumor or attacks of abdominal pain. It seems as if this might therefore be considered a case of calculous obstruction of the pancreatic duct removed accidentally by manipulation.

THE MODERN AND HUMANE TREATMENT OF THE MORPHINE DISEASE.[1]

By J. B. MATTISON, M.D.,

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Obersteiner, the eminent Austrian alienist, writing, in 1883, of the morphine disease, declared—"Quite an incredible number of our colleagues have fallen victims to it, and many have only just escaped." History has repeated itself along this line, during the last decade, with startling and sorrowful frequency, and the end is not yet; for it is a well recognized fact—which my own experience fully and increasingly attests—that among our own profession morphinism finds its favorite victims. Granting this, no apology is needed for bringing this trite—to many, it may be—topic before a congress of medical men, some of whom have, it is safe to say, a more or less direct, personal, perchance, painful interest in the question it involves.

For nearly one-third of a century, this disease has had a place on the list of toxic neuroses. During many of these years it was added to largely—almost wholly—by the favorite form of subcutaneous medication; a method facile, yet often fatal—but which, happily, is now, in my opinion, decidedly on the decline. While felicitating ourselves that the progress of this destroyer is less rapid than in days agone, we cannot ignore the fact that it is still with us, and that whatever holds out the promise of undoing the mischief it has done, whatever gives assurance of ending, or even lessening, the ruin it has wrought, must have a claim upon our interest, and make worthy the best effort at our command.

It is now nearing a quarter century since a case of this disease first came to my care. For most of these years my attention has been exclusively devoted to its study and cure, with a result that warrants me in asserting at no time has the treatment been so simple, satisfactory, and successful as now.

The modern and humane treatment of the morphine disease—pre-eminently an American plan—is compassed mainly by three drugs—bromide of sodium, codeine, and trional. These form a combination of unrivalled value, if properly used, in proper cases, and, with certain minor aids, make a method far in advance of any yet presented to accomplish two leading objects—minimum duration of treatment and maximum freedom from pain.

In 1876, the attention of the profession was invited by the writer, to a new application of the well known power of the bromides to subdue reflex nervous irritation, by commending the use of bromide of sodium in this disease, after a plan quite original, which consisted in giving it, in gradually increasing amount, often enough to secure the effect of a continuous dose, for six to ten days, during which time the habitual opiate was to be gradually, but entirely, withdrawn, the object being to secure, by this preliminary sedation, a maximum sedative influence from the bromide at the time of maximum nervous irritation from the opiate-ending.

This, too, was the origin of what is known as the "rapid method," and history will attest the writer's claim to whatever of merit it may have, though, by many, it has been placed mistakenly to the credit of a foreign physician. This plan, a mean between two extremes, avoiding the painful ordeal of abrupt disuse, and the tiresome delay of prolonged decrease, was correct in theory, and in practice proved a success.

The preliminary sedation feature of this method consists in giving the bromide of sodium in initial doses of 30 grains, twice daily, at 10 A.M. and 10 P.M., and increasing this dose 10 grs. each day, *i.e.*, 30, 40, 50, 60, etc., until a maximum of 100 grs. semi-daily, is reached on the eighth day. On the ninth and tenth days, this maximum 100 grain dose is given in the evening only.

This giving of the bromide applies solely to typically eligible cases. With some it is clearly contra-indicated, with others, a minor degree of preliminary sedation will suffice; and with all patients this rule governs: *Each case is a law unto itself, and the length and amount of the bromide giving, and consequent rate of opiate decrease, is determined entirely by individual peculiarity, as shown both before and during treatment.* This must not be forgotten; brains must be mixed with the bromide. This is a point of prime importance, and failure to put it in practice will account for ill success.

Of the value of the bromide thus given, to counteract and control the nervous symptoms usually incident to the morphine ending, there is no question; and it is the absence of this special feature that makes the Erlenmeyer plan, which is complete opiate quitting in two to ten days, inferior to the method we commend.

During this time of bromidal medication, no other treatment is called for, usually, save a tonic regimen, and such regulation of gastric, renal, and alvine functions as each case may seem to demand, in this respect being markedly and favorably in contrast with any method that does not include preliminary sedation, and which makes essential various anodynes, sedatives, stimulants, and hypnotics during the opiate decrease, if the patient's comfort be conserved. For full details of this opiate-quitting régime, see paper by the writer, "The Mattison Method in Morphinism."

Having secured the desired sedation and reached the end of the morphine-taking, whatever reflex symptoms present are met, mainly, by codeine. This is the second special factor in the modern treatment of morphinism. And it is no excess of assertion to declare that it has revolutionized the therapeutics of this disease. With it, the ordeal of quitting a long-used opiate is robbed of its terrors, and it comes nearer to making a "royal road" to freedom for the captive morphinist than anything now at command.

Of this therapeutical triad, codeine is the most important, for it can be used with good in all cases, whereas some will present in which the bromide should not or need not be employed, nor is trional essential.

Codeine may be given pure, or in either of three salts—phosphate, muriate, or sulphate. Pure codeine is not fitted for subdermic use. It dissolves with acid and may be given by mouth. Of the salts, the muriate and phosphate are richest in codeine—eighty and seventy-

[1] Read before the Pan-American Medical Congress, Washington, D. C., September 6, 1893.

six per cent.—and the phosphate is freely soluble. My usual solution is six grains to the drachm. The sulphate dissolves in boiling water, two grains to the drachm. The dose should be one to three grains, by mouth or skin, every two to four hours, according to case or condition, and continued in gradually decreasing dose and increasing intervals till no longer required. The dose by stomach should be double that by skin. As a rule, codeine is not called for till after the entire morphine-quitting. If needed earlier, it should be given.

Cases will present in which the bromide need not, or should not, be used. In these codeine, with, may be, some hypnotic, a few nights, will serve every purpose.

The credit of first commending codeine in morphinism belongs to an American physician—Lindenberger, of California—who, in 1885, claimed for it merit after a method of his own. Later, Schmidt, Fischer, and Rosenthal, abroad, asserted its value, and my own experience, large and enlarging, makes me regard it my most valued aid.

For larger details along this line, vide the writer's paper, "Codeine in the Treatment of the Morphine Disease;" reprint if desired.

The third factor in this modern method is trional. Of hypnotics this is the latest, and in treating narcotic habitués the greatest. There is no doubt of this. I have given it hundreds of times, and say whereof I know. It is better than sulphonal—its nearest rival, and which, till the advent of trional, led the list of hypnotics in this condition—having an effect more certain, pronounced, and prolonged. My usual dose is forty grains for males, and thirty for women, given dry on tongue at 7 P.M. in the evening, after the last morphine-giving. It is largely soluble in hot water, milk, soup, or tea, and thus taken, acts quite promptly. It is not only *the* soporific in these cases, but is markedly sedative, and so serves doubly for good. We use it exclusively during the first six or eight nights, decreasing it gradually to half the initial dose, and then, if needed, resort to chloral, paraldehyde, or cannabis. Some cases do not require it. One of the most striking ever under my care, now making a good recovery, has done notably well without it, codeine phosphate having secured several hours sleep each night. My opinion, steadily growing, of trional in the insomnia of morphine habitués, is that it is the most valuable soporific we now possess. See my paper, "Trional, the New Hypnotic; its use in Narcotic Habitués;" reprint on request.

Such are the main measures in the modern treatment of the morphine disease. Minor symptoms along various lines will, at times, present, to be met, as they can be, and effectively, as they seem to demand. Treatment must needs be varied, as case requires. The patient as well as his disease, must be treated. Details need not detain us. They are at command of any who desire, in the paper first cited: "The Mattison Method in Morphinism."

Regarding humane treatment, a brief statement of fact and this paper is ended. In 1879 Levenstein presented his "Morbid Craving for Morphia," a book valuable along some lines, but harrowing in its gruesome tale of suffering incident to his plan of treatment. Since then this method—abrupt and entire disuse—has found favor with some medical men, who, from ignorance or disregard of distress—either of which is without excuse—have been led to commend it. These men, misguided and mistaken, may mean well, but they fail to appreciate the sorrow their counsel entails, and it is safe to say, were they forced to run the gauntlet of such suffering, were they bound to the rack of such torture, there would be a rapid and radical change of opinion.

Levenstein's grim tale—cold and terse as a hardware catalogue—of the tortures through which the patient passes—the days and nights of writhing, the sleeplessness, the restlessness, the thirst, the endless vomiting and purgings; his vain pleadings for liberty, for morphia, for anything which will relieve the intolerable anguish—are fairly burning with their burden of tragedy!

In 1883, an American physician, T. L. Papin, said, "Suppose your patient is habituated to morphia, how will you cure him? Let him quit short, absolutely, and entirely. If he have the will-power, trust him; if he cheats, lock him up; put a Hercules over him as a nurse. All substitutes are simply a prolongation of the agony he must go through. The patient who quits morphia suffers from insomnia, diarrhœa, nausea, vomiting, achings, and debility to such a degree that it is a marvel how he lives. All this suffering will last five to ten days. No medicine will do any good; the stomach rejects everything, even a mouthful of cold water. At last, after several centuries of torture, little by little, and without medicine or substitutes, nature accomplishes the cure. This terrible treatment, I am sure, is not only the best, but the only safe one to cure and secure the patient against a relapse."

Well may one stand amazed and aghast at the "cruelty" of such "ignorance," and well may Bartholow declare, "Having had one experience of this kind, I shall not be induced to repeat it; if for no other, for strictly humanitarian reasons, since the mental and physical sufferings are truly horrible."

In 1888, a teacher in one of our leading medical schools—J. C. Wilson, University of Pennsylvania—in a clinical lecture, commended this treatment: "The patient is put to bed, and the physician administers the drug hypodermatically. During the first twenty-four hours the dose should be that he is in the habit of taking. The next day, the dose should be diminished one-half. The following day it should again be diminished one-half, and by the fourth day the dose may be entirely stopped. As soon as the physical effects of the morphia which has been taken, pass off, there is relaxation of the vaso motor system of the intestinal tract, with a pouring out of fluid into the intestines and stomach, with copious vomiting and free diarrhœa, often colliquative. There is intense craving for the drug. There is marked nausea and inability to take food. There is complete sleeplessness, and, sooner or later, delirium appears, and this is often attended with tremor. Finally, the delirium may become intense and active, and during this period there is danger of sudden heart failure and collapse, which in some cases have proved fatal.

"With reference to the necessity for this sort of treatment, it may be said that it is desirable to undertake it in every instance where you can prevail upon the patient and his friends to submit to it. It is not without much suffering and some danger. There are cases in which, from heart failure, the danger to life is so great, you must abandon the attempt."

Sorry, indeed, the lot of a hapless morphinist under the care of any physician so lacking in skill or feeling as such counsel implies; and, verily, a teacher like that has mistaken his calling along this line, and should limit himself to a field in which larger knowledge and broader experience give his counsel greater weight.

In 1893 another American doctor, E. P. Hurd, in a paper on "The Erlenmeyer Treatment," wrote: "The method contemplates and seriously attempts the entire withdrawal of morphine in about a week, the daily dose being first cut down one-fifth, then two fifths, then three-fifths, then four-fifths, and so on till none is given. *During the period of withdrawal* (italics mine) the place of the morphine is supplied by various stimulants, narcotics, and hypnotics. It may be necessary during the first week to give large quantities of whiskey, almost to intoxication; chloral and sulphonal in large doses, quinine and strychnine, will also be needed to meet indications. After the last dose of morphine has been given the patient will be in a condition of great depression, and powerful stimulation will be required for a few days; sometimes diarrhœa or collapse will indicate the necessity of a temporary resort to morphine or to deodorized laudanum. Then, when the patient is sufficiently weaned from morphine, the task is begun of weaning him from the drugs and from the alcohol by a tapering off plan which will require about three weeks. Naturally, it is a month of

anxiety to the physician, and of trial and suffering to the patient."

What a travesty on rational therapeutics! If such be the "Erlenmeyer treatment," the less of it the better. In justice to this eminent German physician, whom I personally know, I am bound to say I do not accept it as his method.

Modern medicine has done much for humane relief of the hapless morphinist, but that ignorance of this advance still obtains, the following extract from a letter recently sent me by the writer last cited—Hurd—will well attest. He wrote: "If you, or any other man, or an angel from heaven, were to tell me that the morphia 'habit' could be cured without great physical suffering, I would reply that this is intrinsically and scientifically 'improbable!'" What presumption! this in the face of his further statement: "I am free to confess myself only a novice and learner, and have not yet passed beyond the state of tentative experimentation for that of positive and scientific certainty." Let me assure this gentleman, and all other like sceptics, that the time of "tentative experimentation" in the therapeutics of the morphine disease, has *gone*; the day of "positive and scientific certainty" has *come*.

The Levenstein method is crude in theory and cruel in practice. It is brutal—utterly unworthy a healing art—and needs only to be described to be denounced. It incurs the risk of a fatal ending, has killed more than the world will ever know, and brought many perilously near to death. It has no claim to merit, either in abridging treatment or preventing relapse. Jennings truly says: "Dreadful as are the tortures inflicted, they do not, as a matter of fact, afford any safeguard against relapse." Most of Levenstein's patients had return of the disease, "notwithstanding the unwarrantable tortures to which they were subjected."

No valid excuse can be offered for its practice, save in rare cases, where conditions are peculiar and quite beyond control; and any physician so ignorant or inhumane as to counsel and compel it, except under such conditions, deserves to be made defendant in a suit for malpractice. The Erlenmeyer method, while less distressing and disastrous than the Levenstein, entails much suffering that can be avoided. It has no special merit as effecting rapid or radical cure, and does not, in any way, well compare with the humane method we commend.

Quite apart from the merit of this humane method on the score of humanity, it has another bearing which is far-reaching and important. There can be no question that the dread of such suffering as attends the largely held idea of escape from the thraldom of morphia, is a decided bar to many an effort in this regard. Many think escape only possible through prolonged distress, and, despite a consummation devoutly wished, prefer to bear the ills they have. A notable case in proof is recalled. Fifteen years ago, a naval surgeon, three years a hypodermic morphia-taker, first consulted me. Six years later he came to my care, and avowed the reason of his delay was the reading of Levenstein's book, and fear of such suffering as that treatment entailed. This gentleman made a surprisingly good recovery, was dismissed on the thirty-second day, and has remained—nine years—well.

When the practice of this humane method more largely obtains, we shall note a steady increase in the number of ex-poppy habitués.

Mr. Chairman, this paper is a plea for merciful measures, to release from a galling bondage—made such by force of conditions beyond control—many who are deserving of deep commiseration. These measures are surely at command, and the medical man who does not, or will not, so acquaint himself, had best consign such cases to other care. Few advances in modern therapeutics have been more marked than the one to which we refer: and the writer is both glad and grateful that it has been his privilege to proffer humane help to many bearing the grievous burden of this phase of human ill.

Prospect Place, near Prospect Park.

NOTE UPON THE OCCURRENCE OF INDICAN IN THE URINE OF INSANE PATIENTS.

By E. D. BONDURANT, M.D.,

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Indican, $C_{52}H_{62}N_2O_{34}$, classified as one of the normal coloring substances, or, more correctly, color-producing substances of the urine, has come of late years to possess a certain pathological interest, and even some, although as yet it must be acknowledged questionable, value in the diagnosis of morbid bodily states. It is supposed to exist in minute quantity in the urine of all persons after the age of infancy, but in so small proportion—five to ten milligrammes per 1,000 c.c.—as to give no reaction with the tests ordinarily employed. This quantity, however, varies widely in different individuals and at different times; is largely dependent upon the character of the food, being increased by a meat diet (Von Jacksch), and is enormously increased in certain pathological states. It has been noted in large amount in the urine of patients suffering from abdominal tumors, especially carcinoma of the liver, tuberculosis, typhoid fever, Addison's disease, cirrhosis of the liver, peritonitis, inanition, and, in especially large quantity, in many forms of intestinal disorder, complete obstruction standing at the head. In the lower animals its excretion has been found to be wonderfully increased after experimental ligature of the small intestine.

The method of its physiological production, and the rationale of its increase in the various forms of disease above enumerated, is, according to the researches of Baumann and others, about as follows: Indican is a derivative of indol, and is formed in the blood by a process of oxidation whenever indol makes its way into the circulating fluids. Indol is a constant product of the action upon albuminous matters of the bacteria of putrefaction, and is also found during late stages of pancreatic digestion. Any interference with or delay in the process of intestinal digestion, and, in particular, any obstruction to the ready passage of the intestinal contents, by favoring fermentative and putrefactive changes, increases the production of indol, and furnishes to the blood the mother-substance for the elaboration of indican. This same result may, in a lesser degree, be brought about by putrefactive changes in other parts of the body, as in a case of a decomposing pleural exudate, reported by Von Jacksch, and in purulent peritonitis. In general terms, and with exceptions and limitations, it is in those diseases accompanied by disordered intestinal digestion that abnormal increase in amount of indican excreted by the kidneys is found.

In the wards of our State Insane Hospital, in the course of a somewhat extended clinical study of the nephritic complications of insanity, involving among other things the frequently repeated examination of the urine of a large number of insane patients, some attention in passing has been given to the subject of *indicanuria*, with a view to discovering if the presence in the urine of an increased amount of indican could be made of any practical value in the diagnosis of disease among the insane.

The results have in the main been disappointing. Indican in amount greater than normal has been found in a variety of cases, representing a large number of mental and bodily disorders, but such increase is seemingly not peculiar to nor characteristic of any single morbid state nor group of symptoms. A few patients in average health have exhibited a notable increase, while some in the last stages of bodily disease returned a negative result, though a considerably larger proportion of cases showing distinct indicanuria has been found among the weak and ailing than among the strong and robust.

In reviewing the mental symptoms of the cases examined, however, a feature of some interest is discovered in the noticeably greater frequency of indicanuria among the acutely insane, the proportion being more than twice that shown by the patients suffering from chronic forms

of mental aberration. The truth of this statement is made at once apparent by the figures of the table below.[1]

Forms of Insanity.

	Total number examined.	Showing increase in indican.
Chronic mania, melancholia, and dementia	193	13
Chronic insanity with epilepsy	41	4
Paranoia and states of defective development	7	1
Acute mania, melancholia, and dementia	160	34
Acute delirium	5	2
General paresis	5	1

Less than eight per cent. of the cases of chronic insanity show an abnormal amount of indican; more than twenty per cent. of the acute cases yield a ready reaction to the tests. The most reasonable explanation of this difference is to be sought, not in any peculiar influence exerted upon the vital processes by the varying mental states of the patients, but in the widely differing states of physical health of the two classes. The chronic cases, having survived the stress of acute mental disorder, measurably recovered from such bodily ailment as may have existed, and readjusted to life upon a lower plane, are, as a class, in comparatively good health, all animal functions being properly performed. Many of them attain a good old age. The more active forms of intellectual disorder, on the contrary, are most usually attended by a derangement of the vital mechanism, often of a serious nature; tissue-waste is active, and the digestive and general restorative processes are imperfectly carried on.

Such grave disorder of the digestive and assimilative apparatus as is so frequently seen in the states of acute delirium, typho-mania, and other active forms of insanity is doubtless sufficient to induce over-activity in the fermentative changes in the contents of the small intestine, with consequent increase in formation of indol, and its derivative, indican; and it is precisely in those cases of insanity accompanied by intestinal disorder that increase in quantity of indican in the urine has been most frequently noted. As further indicating the physical disorder as the essential agent in causation of indicanuria, it is noteworthy that as the bodily disorder subsides, the patients progressing to recovery or to chronic mental disorder, the indican usually falls to normal amount. Be it observed, however, that not all cases of acute insanity with intestinal complications exhibit indicanuria as a symptom; and that, as above mentioned, a small proportion of persons in comparative health do show an unusually large percentage of urine indican.

Of other forms of disease in which clinicians have reported the existence of indicanuria, examples of several have come under notice here.

Examination in nineteen patients suffering from tuberculosis of lungs and other organs resulted in the detection of indican at each of two or more analyses in seven of the cases; in two others indican was found at a single examination, but not subsequently. Five of the seven had tubercular disease of small intestine and mesenteric glands, as shown by autopsy, with bowel disorders during life. The presence of large amounts of indican in the urine of tubercular patients has been several times referred to by writers. Hochsinger, in Vienna, in 1890, published a paper in which he claimed the presence of indican in the urine of children less than six years of age to be absolutely diagnostic of tuberculosis in some form. Kahane shortly thereafter corroborated this statement in part; but observations by more recent writers (Steffen, Voute) have not seemed so conclusive. Among adults the symptom is of little value, although the excretion of large amounts of indican is more frequent in tubercular cases than in persons in fair health.

In three cases of partial obstruction of the bowel with peritonitis, indican was found present in large quantity. Two of the cases terminated in death. In the third case, which ran a more favorable course, the indican was found at every examination made during the height of the attack, but disappeared as convalescence was established.

We have had two cases of carcinoma of the breast, each of which showed indicanuria. In the first case the mamma was amputated; the growth, recurring, was removed a second time, and glands in axilla were extirpated; growth recurred in glands of the neck and in the tissue of the lung, patient finally dying by suicide some five years from time of first appearance of the tumor. Indican was found at every examination made during this time. In the second case removal of the tumor and improvement in general physical state was followed by subsidence of the indicanuria. The tumor has not recurred, and indican is not now present in the urine.

Many of the cases of indicanuria are complicated by the presence of albumin and casts in the urine, and among them are not a few cases of severe renal lesion. In the more severe forms of nephritic trouble the proportion of cases of indicanuria is especially large. This is equally true of the non-insane patients who have been examined. Of fifty-eight such cases, six showed increase in indican, and of these the two giving the largest increase were cases of well-marked and eventually fatal Bright's disease.

In the mild transient diarrhœas prevalent during the summer months the proportion of cases of indicanuria is not especially great.

The table appended will show the forms of disease represented among the fifty five cases of indicanuria reported.

Tuberculosis	7	Morphinism	1
Carcinoma mammæ	2	Septicæmia	1
Intestinal obstruction	3	Ulcer of leg with debility	1
Diarrhœa (uncomplicated)	3	Heart lesion	2
Acute nephritis	5	No bodily ailment, but health not robust, albumin and casts in urine	10
Chronic nephritis	4	In apparent good health	7
Puerperal state	3		
Chronic bronchitis	1	Total	55
Chronic malarial poisoning	1		
Epilepsy	4		

It may be said, in brief recapitulation, that an increase in the proportion of indican present in the urine usually indicates disordered intestinal digestion, and such intestinal disturbance constitutes the essential feature in the large number of different maladies, including acute mental disease, in which indicanuria has been reported. In certain cases its discovery may throw some light upon obscure symptoms, which fact, together with the ease with which the tests may be applied, would justify a test for indican at each and every urinalysis; although in the present state of our knowledge of the subject, any very positive value cannot be assigned to its presence in the urine in abnormal quantity.

[1] Cases giving a reaction for indican at one examination, but in which subsequent analysis proved negative, are not included; so that it may be assumed that the indicanuria persisted during a longer or shorter time in each of the fifty-five cases reported. The tests employed are Weber's, Jaffe's, and Heller's, detailed accounts of which may be found in any work on urinalysis.

Hartford Medical Society.—The Medical Society of the City of Hartford, organized in 1846, is to receive a fund for the erection of a building to be devoted to its purposes and to those of the medical profession of that city. It will be in memory of the late Dr. Ebenezer Kingsbury Hunt, formerly president of the Connecticut State Medical Society, in compliance with the terms of a bequest of the late Mrs. Mary C. Hunt, of Hartford, widow of the late Dr. Hunt. The medical school at Yale University will also fall heir to the sum of $25,000 under the will of Mrs. Hunt.

The Symptoms of Coryza Accurately Stated.—A four-year old caught a severe cold while his mother was out of the city, and on her return rushed up to her, and throwing his arms around her, cried, "Oh, mamma, both of my eyes is rainin' and one of my noses won't go."

ASTASIA-ABASIA.[1]

By W. C. WEBER, A.B., M.D.,
CLEVELAND, O.

Mr. President and Members of the Society: The case which I am about to describe is one of rather rare occurrence, and possesses more than a passing interest. This patient was under daily observation by Drs. F. C. Taylor and R. Pollock, house physicians of the City Hospital, and myself.

History of the Case.—Mr. S——, aged twenty five, Russian, in the United States six months. Heredity good, no acquired or venereal dyscrasia. Laborer, and always in excellent health until present illness. He insists that his personal habits have always been correct, notwithstanding the fact that he has consumed sixteen ounces of alcohol daily for some time before he became a resident of our country, and since which time he has experienced no inconveniences in his efforts to substitute our own national beverages for those of the land of his nativity.

A few days prior to his admission to the hospital, patient experienced a slight dizzy sensation, became entangled in coils of red-hot wire, in an iron-works in which he was employed, fell to the ground and sustained several burns from the second to the fourth class on the forearm and around one lower extremity, midway between the knee and ankle. For the burns he received the usual treatment, and as far as these local injuries were concerned, made a rapid recovery.

When it was decided to permit patient to leave his bed, he was greatly surprised to find that he was unable to stand. In order to ascertain whether the cause of this was debility or a loss of the power to guide or control the movements, his body was now supported by two men, but he could no more walk than he could stand alone before.

While in the dorsal decubitus or when sitting, he possessed the ability to describe any normal motion or to exhibit a considerable degree of muscular strength, though he was not of the muscular type.

Careful examination revealed the following: A complete degree of analgesia extending from the toes to the body, about one or two inches above the pubis. At any point in the designated area a pin or any sharp-pointed instrument could be thrust without eliciting the slightest pain. The tactile and thermal senses were normal. The patellar tendon reflex was completely abolished. Digestion was good, and the circulation normal. The lungs and other internal viscera were also normal.

In the recumbent or sitting postures the various muscular movements are executed with perfect ease; but no sooner is the erect posture gained than all the co-ordinative power is lost. Certain groups of muscles are in spastic contraction, while others are in a state of relaxation, during the attempt to stand or walk.

Astasia abasia is the name given to the disease, which has been defined as a functional neurosis of a variable symptomatology in which the inability to stand or walk is constant.

Charcot and Weir Mitchell were among the first to call attention to this group of symptoms, about eight or ten years ago. But it was not until 1888, that Blocq described the disease very thoroughly, reporting a dozen cases, giving it its name and the following definition: "A morbid state in which the impossibility of standing erect and walking normally is in contrast with the integrity of sensation, of muscular strength, and of the co-ordination of the other movements of the lower extremities." Recently Dr. Knapp has gone into the subject very exhaustively, detailing fifty cases—all that are on record to date.

Anæsthesia, hyperæsthesia, visual disturbances, an exaggeration or diminution in the heat or muscle senses, usually with increased reflexes, are symptoms which are present in a variable proportion in nearly all cases. The greater number, perhaps, of observers of this disease incline to the view that it is related to hysteria and allied neuroses, while others admit the presence of an organic lesion in the spinal cord in certain cases. In all these cases the tendon reflex was diminished in only three or four, and the sense of pain in none.

The case which I report differs from those whose description has been noted in the following points: In this patient there was a complete absence of the patellar tendon reflex. There was complete analgesia. There was no history of any previous nervous disease, nor was there anything in his general appearance indicative of a hysterical neurosis. He was a hard laborer, accustomed to coarse food and an out-door life. In the cases hitherto reported the great majority were of the nervous temperament, and the remainder of sedentary habits.

The treatment consisted of alcoholics in no form, strychnia, grain $\frac{1}{30}$, every four hours, a nutritious and easily digested diet, and absolute rest. Patient made a good recovery in about three months.

The absence of evidence of any neuroses, the exemption of any previous disease, and his addiction to the use (more properly abuse) of a beverage so rich in fusel oil, are some of the reasons for regarding the pathology of this case as of an organic rather than a functional character.

Some of the diseases which naturally suggest themselves in connection with the subject in hand, and from which it must be differentiated, are multiple neuritis, tabes dorsalis, disseminated sclerosis, myelitis, paraplegia, etc.

It is not intended to discuss here the various diseases which bear a resemblance to our case, but simply to point out such differences as shall enable us to see the non-identity of these diseases.

The manifestations of the neuritis produced by alcohol are varied and peculiar. For sake of simplicity they can all be described under two varieties, though the clinical phases cannot always be differentiated. In the one, there are motor disturbances and atrophies, and in the other the disorders are sensory. In the former, the gait becomes ataxic, and closely resembles that of a tabetic, with the distinction that in the latter there is no loss of muscular strength, while in the former there is a comparatively early diminution in strength in consequence of muscular atrophy, which by preference affects the extensors in the beginning. In this variety there may or may not be present transient, violent drawing pains, principally in the lower extremities.

The patellar reflex is in many instances lost early, which may lead to an erroneous diagnosis of tabes dorsalis; especially may this happen if the alcoholic effects have extended to some of the ocular nerves. The absence of the Argyll-Robertson pupil, Romberg's sign, and the bladder symptoms in tabes, renders a differential diagnosis comparatively easy in the majority of cases.

The second form of alcoholic neuritis may exhibit no motor disturbances. Patient may complain only of pain along the course of the nerve, which may be either dull or lancinating in character, resembling the pain of locomotor ataxia. There may be anæsthesia, hyperæsthesia, formication, or numbness, all of which as a rule are confined to the lower extremities.

In acute myelitis there is pyrexia, well-marked trophic changes, a zone of anæsthesia surrounded by one of hyperæsthesia in the early stage. The muscles rapidly waste and the pelvic viscera are often involved

It is only necessary to mention Thompson's disease, spastic paraplegia, and paralysis agitans, etc., to make it patent that we haven't these to deal with, though each of them may have some symptoms in common with the case here reported.

The most interesting feature about the condition which bears the title of this paper is its pathology, concerning which so little is known. Assuming that we have to do with an organic disease, where is the lesion situated?

[1] Read at Cuyahoga County, Ohio, Medical Society, October, 1893.

Doubtless it will be agreed that its location is somewhere in the spinal cord, and probably in the lower dorsal or lumbar segment. If destruction of the posterior nerve-roots results in anæsthesia of the senses of pain, touch, and temperature, it is obvious then that the lesion is not there. The sense of touch being unaffected, it is safe to exclude the posterior columns from the diseased process also. It might seem that the evidence, therefore, pointed to the motor tracts as the part involved, including perhaps the multipolar cells in the anterior horns, thus furnishing an explanation of the absence of the deep reflexes. Of this we are, however, not so sure. The exact location of the various centres of pain, heat, etc., has not yet been definitely determined, but is thought to lie near or within the motor area—probably occupying that portion of the parietal lobe which is not directly concerned in its motor function.

The tactile and thermal impressions, but not the sense of pain, can be conveyed through a cord whose gray matter is impaired or even destroyed, provided the other structures are intact.

It has also been demonstrated in autopsies that in those cases in which existed an inability to appreciate differences in temperature and touch, and in which the sensation of pain was unimpaired, there were either lesions of the posterior columns or other interference with the conductivity of sensory impulses, but there was found in no such instance any destruction of the gray substance.

It is impossible, in the present state of knowledge pertaining to this subject, to determine in all instances, with any degree of accuracy, the exact pathology of muscular inco-ordination. There is not a great unanimity of opinion among writers as to the *modus operandi* of muscular inco-ordination, even in diseases whose pathology in other respects is well understood.

Lyden says ataxia is to be accounted for in a disturbance of sensibility. Some contend that it is a disturbance of the reflex activity in the cord; while Friedrich and others think it a disturbance of co-ordinating fibres. That the topography of lesions of the spinal cord is not yet the exact science we could wish it to be, is apparent, though the acquisition in this line has been considerable in recent years.

The question might be raised if the burns in this man were not the cause of the abasia and astasia instead of the amylic alcohol. This is not probable; for it would be difficult to understand in what manner the temperature and tactile sensibilities could escape unaffected if the abolition of the sense of pain is produced by peripheral paralysis due to the local traumatism.

It will be remembered that a lesion of the cord at any point below the fifth lumbar segment may produce anæsthesia only on the posterior aspect of the lower extremities; and when the lesion extends as high as the third lumbar segment, in addition to the above, the sides of the limbs also become involved; when the lesion is between the third and first lumbar segments, the anæsthesia extends to all parts of the extremities, and reaches an elevation corresponding to the area of distribution of the ilio inguinal nerve.

Now, by referring to the symptoms in this case, it will be observed that the analgesia invaded the highest point supplied by this nerve. As this nerve takes its origin from the first lumbar nerve, it becomes highly probable that the superior limit of the lesion was at a point on a level with the latter.

While it was more the purpose of this paper to report a case than to locate or assign definite pathological lesion to one or more of the various structures of the cord, it seems to me that the following conclusions are in keeping with the findings of our case:

1. The lesion was not unilateral.

2. The posterior columns (Goll and Burdach) were not included in the diseased process.

3. The probability is that the morbid process extended to the central gray matter of the cord, for this only can explain, it seems, the absence of the pain sense in the absence of any other sensory impairment.

4. That there might have been a disturbance of the large cells of the anterior horns which connect the motor fibres from the brain with those of the anterior roots of the spinal nerves, which did not, however, result in marked trophic changes.

5. That the motor tracts probably escaped; for if the destructive process included the direct or crossed pyramidal tracts, it is easily to be seen that the motor impulses would be inhibited.

Position of the body would have little or nothing to do in executing any movement; and therefore, inasmuch as any normal motion, as well as force, was within the power of this patient when in the recumbent posture, lesion of this portion of the cord can be also excluded. This, then, leaves the gray matter in the region before indicated as the only probable seat of the pathological changes.

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THE TREATMENT OF PHTHISIS.[1]

By E. P. HERSHEY, C.E., M.D.,
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No time could better present an opportunity for the iconoclast to assert his power than at the close of a century. By numerous interesting articles that have lately appeared in medical literature it seems that the good work of destroying the false images worshipped by many of our profession has commenced early. It is to be hoped that those who take part in this will not be considered cynics, but rather that they shall be aided in their efforts to destroy all that has been useless.

In no disease have we so artfully exposed our ignorance as in that enemy to human comfort—consumption. We have learned its pathology, but each step in its discovery has led to many new treatments. That there are many cases of phthisis that have cured spontaneously has been proven without a doubt. That we have not yet cured a case by direct medication to the diseased organ is also beyond a doubt. There are periods in the history of every consumptive in which, with absolutely no treatment, temporary improvement occurs. Indeed, at certain times it seems as though the patient is on the border-land of recovery, and the same has occurred in spite of all medication. The physician eager to convince the medical world of his skill publishes such cases, and in his enthusiasm forgets many in which the same treatment has failed. Years go by after these various methods have been tested, and as faithfully laid aside, when here and there we meet with many with whom they still find favor.

It would be safe to venture the statement that no matter how absurd the method taken for the cure of consumption it will find its advocates. When these poor suffering mortals anxiously watch for some genius medicus to rescue them from their hopeless condition, ever eager to grasp at the first offer of help, should we wonder at it if, when some mysterious apparatus is presented to them, their whole being becomes animated with hope, and that a new life should take possession of them? When instead of the depressed condition of despair renewed vigor enters their whole system they naturally show immediate signs of improvement. The same effect can be obtained by means of another apparatus diametrically opposite to it. The inhalation of rarefied air has its advocates as well as the condensed air. Pure oxygen goes hand in hand with diluted oxygen, and even the impure atmosphere of the gasworks, as far as the claims of their curative powers go.

Note the periods during the last decade in which certain treatments became fashionable in the cure of consumption. First, compressed air inhalations. Then,

[1] Read before the Denver and Arapahoe Medical Society, October 24, 1893.

with the idea of cooking the mischievous little bacilli, the patient was forced to inhale air at a suitable temperature for that purpose. We all remember the reports of the success obtained by these methods of warfare. Scarcely had their fame died out before the medical world was startled by the reversing of this method by reaching the lungs *via* the rectum — the injections of sulphuretted hydrogen. Physicians were clamoring for the necessary apparatus with which to assail their patients. Shortly after, when that body of sage men congregated to form the World's Medical Congress, many were armed with statistics to prove the efficacy of the treatment, when the assemblage was thrown into consternation by one bright light who suggested that he had discovered an easy method of administering the dose—advising patients to partake plentifully of Boston baked beans. Thus died the supposed great boon to the suffering world.

Everything was quiet for a while, except here and there in the distant backwoods a few flashes would be seen among those who had just learned of the discovery, and with all the faith in the world were trying it, when suddenly there was a leakage in the walls that bound up in secrecy the experiments of one of the most noted investigators in the medical profession—Koch. Soon that breach became a widening gap, and the world became flooded with the greatest discovery of the nineteenth century—a sure cure for consumption. Scarcely had the eminent professor time to ascertain whether the compound killed or cured, before thousands of our brethren had found it infallible, and to day, who among us handling this article of warfare, will claim the greatest number among the slain? But we are too much in haste in calling for statistics as we still have a few that are trying it.

These sure cures must come faster. Hence back in the Buckeye State there suddenly appears a hero. At last the enemy is at our feet. We are daily confronted with numerous testimonials as to the success of a certain treatment. Every city has an emissary of this great king in the person of a duly authorized practitioner. The name of the discoverer is on the tongue of every consumptive. Has it been a success? Yes! in a way. We understand that some poor unfortunate, unable to legitimately gain a livelihood in his town or village has become the recipient of thirty-three and one-third per cent. of the receipts, or five dollars a month for each victim.

Except for cases similar to this last we believe that most of the methods in years gone by have originated in the minds of earnest philanthropic members of our profession; it is not therefore the object of this paper to condemn the originators of the many treatments that have been presented to us in the past, as it is to show how apt we are, in our desire to lessen our humiliation in the eyes of our patients, to accept anything that comes along.

Apart from these mechanical contrivances, what have we in the line of medicaments that have been promised as beneficial in this disease? Alas! their name is legion. For night sweats, atropine, agaricine, camphoric acid, and quinine. For every patient who will give the credit of curing their night-sweats to the physician, who may have used any one of these drugs, there can be brought forward a dozen who will laud the never-failing remedy of the bucket of water under the bed in which the patient sleeps, and a score or more who claim that the night-sweats left them without any treatment.

And the fevers. How they come and go with or without medication, unless it be those cases in the latest stage of the disease, where the fever seems permanent, until after a time we see our patient daily sinking beyond all reach of experimental therapeutics.

What healthy man could withstand the medication to which we submit our consumptives? Our hygienic laws teach us to avoid impure atmosphere. Scientists are striving to invent an apparatus by which the immense volumes of smoke can be consumed that they may not pollute the air of our cities where thousands are congregated in small spaces, and the cry is "give them fresh air," and yet, with an intelligent look upon his face, the physician advises his patient to inhale the very oil of smoke—creosote. Let us extend to our fellow practitioners an invitation to partake of the following health restorers (?). We shall select only a vigorous, hearty man, one who has a healthy stomach, good circulation, and whose lungs are in a normal condition. Let him take what had been the treatment of a patient who recently came under my care, his physician having left town for a few weeks.

Diagnosis.—Dulness throughout the upper lobe of the left lung, slight dulness in the apex of the right. Dry and moist râles at the apex of the right. Bronchophony throughout the upper portion of the left; moist râles at the base of same. Signs of small cavity in left lung. Evening temperature, 101.5° F.; morning, subnormal. Night sweats.

Let our healthy physician commence now on what this patient was taking. Every opportunity he may have left him shut out the pure air by means of a fine wire screen that holds within its concave surface a sponge saturated with creosote. Mark you, the more he shuts out the pure air the better. Then, in order that he may have missed the chances of getting enough of the organic compound into his system, *via* the air-passages, have him take at least three or four times a day some of the same creosote into the stomach, mixed up with pure whiskey, steadily increase the dose to tolerance! (Tolerance of the stomach we presume.) Now let him take five grains of quinine every five hours, and just about 4 P.M. let him take ten grains of antipyrine, acetanilide, or phenacetine. Then just before he is to sink into nature's pure, calm, restorative sleep, let him take a nightcap of opium or belladonna, and if that kind hearted victim of scientific research does not go into consumption at an early date, it will be because either there is nothing in the laws of hygiene or else his system has so revolted against the inhuman treatment that he is compelled from sheer exhaustion to discontinue his test.

We have gone far enough with our experiment, though we may be anxious to try, for our advancement, a few hypodermatic injections of certain dilutions of the quintessence of putrefaction known as "tuberculin," thus further impoverishing his blood; or, being anxious to ascertain just how long the patient's circulation can stand it, we might suggest what is now highly praised, a mixture of guiacol and iodoform in sterilized olive-oil.

It is a serious matter, and seemingly an important one, for anyone to doubt reports of cures as reliable as they have come to us concerning the benefits derived from certain forms of treatment. But how is it, with so many benefited or cured by the various methods, that we are not using them now? We meet only with an occasional remnant of an old fad, forced upon a patient by one who either has not yet witnessed the ruins, or else who holds on to it as the most plausible method to present to the innocent.

It seems almost incredible that in the face of our knowledge of the pathological changes that occur in the lung-tissue in tuberculosis, that so many intelligent physicians should attempt to conquer the disease by so many methods opposed to common-sense. A fleeting thought of a great man becomes a theory, and in the minds of thousands this theory is forced into a fact. But the poor suffering patient, how about him? Instead of pure air he gets stifled with various forms of polluted atmosphere. In place of his stomach receiving good nutritious food, drugs of all descriptions are forced into it. Instead of allowing the already weakened circulation to aid in restoration, it is contaminated with foreign substances, which throw an extra burden upon the organs of elimination.

A disease essentially the result of ill development from malnutrition, a process of slow decay due to an absence of vitality, cannot be whipped into renewed activity. The death of any portion of the body cannot be restored

to life by internal medication. Decay suggests the surgeon's knife. But the surgeon must admit his inability to apply his art to so delicate and active a structure as the lung. Of all the medication that has been suggested within recent years for tuberculosis, none has as yet proven itself worthy of further trial, and there remains yet a treatment that will surpass that laid down by Alonzo Clark, who, after sixty years' experience, advised, in a lecture delivered in 1882, the following:

"Consumption may be cured in its early stages. Horseback exercise, twenty-five miles daily. One to one and a half quart of milk with a half pint of cream daily. Rare beef. Friction to the surface of the body night and morning. Peaches. In case of poor appetite, a teaspoonful of tincture gentian comp. in a good sherry wine three times a day, and in case of severe cough, spray the throat with glycerine and water, a grain of opium to the ounce." Surely no method could be more simple than this.

Have not the recent so-called advancements made in the treatment of consumption greatly increased the rate of mortality? It would be an injustice to assert that physicians wantonly retain their patients until such time as climate will prove of no benefit to them. Sustained by what should be reliable statistics, they feel warranted in subjecting their patients to the advocated treatment only to find out that time has been lost, and so the patient is held back so long that climate proves of no avail.

We have all had more or less experience with consumption, and we find unreservedly that all the cases we provide with death certificates give you a line of treatment they underwent for months before coming to Colorado; on the other hand, how many patients we have had, now in the full vigor of health, who were either well advised to go, or of their own free will came, to this country in the first stage of the affection. Even some of the more advanced cases improve and get well if the good effects of pure rarefied air are not counterbalanced by too much drugging.

The same desire to medicate so prevalent in the lower altitudes infests us. The patient escapes his physician at home only to be waylaid by one here, or he may soon be led with the belief that though his physician at home was wise enough to know the uselessness of medicine, he should have his stomach filled with various drugs, thus depriving him of what might have been a benefit—the unencumbered effects of an exhilarating climate.

The accompanying table will show the comparative results of delay and promptness in change of climate, a few cases still living, but showing signs of rapid failure being classed as fatal; also entering those who show such signs of improvement that, from our experience in such cases, are either sure to recover or else live many years without inconvenience from their affection, as cured. The cases originating in Colorado give histories of feeble vitality; in one, the mother dying of consumption soon after the birth of the child, another losing both parents from the same disease, the mode of life in both cases being such as to provoke lung trouble. The word treatment is used strictly in the sense of direct attention to the lungs by any of the recent methods.

Cases.	Originating in Colorado.	Treated 2 to 5 years before coming to Colorado.	Treated 1 to 2 years before coming to Colorado.	Treated 3 months to 1 year before coming to Colorado.	No treatment before coming to Colorado.
Number, 328 ...	8	92	90	41	97
Fatal....	5	62	32	8	5
On the road to recovery.....	3	26	36	19	25
Recovery	..	4	22	14	67
Per cent. of fatalities.	62½	66⅔	35⅝	19½	5⅛

Except in very rare instances phthisis florida, or the so-called "Galloping Consumption," is not more than benefited by the climate of Colorado. All other forms of phthisis become at once the possessors of a new lease on life, except those presenting a condition of general breaking down. As curious as it may seem, and yet the statement can be vouched for by every practitioner in Colorado, patients who, at the expiration of thirty days, have not been benefited by the change of climate, with extremely rare exceptions, would do as well, or better, at their homes; those whose symptoms have subsided even in the least degree at the expiration of the thirty days, with exceptions as rare, either make a complete recovery, or else are so improved as to make life comfortable. The former cases belong almost exclusively to those who have lingered at home under the vain hope of receiving aid by medical treatment. To the other class belong those who have been fortunate enough to fall into the hands of the wise physician, one who possesses that keen intelligence which enables him to recognize his own inability to cope with the disease.

Again, except attention to the digestive organs or to the improvement of other organs of the body which may be affected, those patients coming to Colorado for consumption fare far better when advised only to exercise, diet, and general hygienic laws than those who are drugged. Entrusted as we are with the care of these subjects, a charge more sacred by far than the chance patients we may get, it seems almost inhuman to submit them to all that has failed at their homes. They have been sent to us not to drug, but either to advise them as to the best means of obtaining the benefits of our climate, or to guard them against certain indiscretions they may be apt to commit. It would not take a prophet to foretell the outcome of a case who spends much of his time indoors sifting air through wire meshes saturated with antiseptics, waiting in some close quarter to receive his hypodermatic injection of tuberculin or guiacol, who is fearful lest he might come in contact with fresh air or that the bright sun should mar his complexion, taking into his stomach numerous drugs that very nature would reject were it not for the enfeebled condition of that organ. Nor is much wisdom required to know how he will fare who lets all drugs alone, exercises in the fresh, invigorating air, substitutes for drugs rich milk and well cooked food, who, instead of taking the hypodermatic injection, is sure that just as the food is converted into blood pure air strikes the lungs, that what is left of them may play their part in oxygenating that fluid, that it may course more smoothly and perfectly through its channels, and in its turn perform its proper function in the restoration of diseased parts.

No cure has as yet been accomplished by attempts to destroy tubercle bacilli, and there is every reason to believe that much harm may be done by taking away the excellent advantages afforded by nature to eradicate the disease. It is therefore to be hoped that all physicians, as fortunately many do, will admit their inability to master the disease, and with this in view will advise their patients as to the importance of a speedy change of climate, and the necessity of complying with the general laws of hygiene rather than putting dependence upon the curative effects of drugs.

Pyloric Stenosis.—1. Pyloroplasty, as devised by Heineke-Mikulicz, is the safest and most efficient operation for cicatricial stenosis of the pylorus. 2. Pylorectomy in the treatment of carcinoma of the pylorus is a justifiable procedure when the disease is limited to the organ primarily affected and the patient's general condition furnishes no contra-indication. 3. Gastro-enterostomy by the aid of large, moist, perforated plates of decalcified bone should be resorted to in the treatment of malignant stenosis of the pylorus as soon as a positive diagnosis can be made, and a radical operation is contra-indicated by local or general conditions of the patient. —Senn.

Progress of Medical Science.

Diabetes in a Baby.—Drs. Duflocq and Dauchez report a case of death from diabetic coma in an infant of only eighteen months of age. When Dr. Dauchez first saw the child, on January 6, 1893, he found it had been peevish and uncomfortable for only about a fortnight (*The Practitioner*). It was very thin, weak, and of somewhat venous tint, and its discomforts were attributed by its parents to its teething, but to the doctor's ear the history of constipation sounded more serious. He gave it gentle purgatives and stimulants, and did not attribute any special importance to the mother's statement that it was drinking more than four pints of milk a day. Next day it was much weaker and more cyanotic, and the temperature had sunk to 96° F. More energetic measures were taken; it was wrapped in cotton-wool and given punch, ammonium carbonate, and an enema of coffee. Dr. Duflocq was called in, and found the baby comatose, with lost corneal reflex, quick breathing, and dry tongue. It did not feel the injections of ether, and in a few hours was dead, *i.e.*, in less than thirty-six hours from the time when medical advice was first called in. The possibility of diabetic coma was recognized, and a little further search showed white powdery patches on the napkins and bed-linen, and an abundant amount of glucose by further chemical analysis. Dr. Conolly has recorded (*Medical Times and Gazette*, July, 1874) a very similar case in a child of twenty-one months, with marked constipation ending in sudden coma; and instances have been given by Busch (*Ugeskrift for Læger*, March 25, 1875), Hauner, and Rosenbach (*Berl. klin. Woch.*, 1874), at a still earlier age. In the two last cases, however, death resulted from exhaustion rather than from coma. Hagenbach relates another case where death came on from pulmonary gangrene in a child of six months. There is one case to quote of recovery, in a little baby of Dr. Kitselle's, who was made out by his father within a fortnight of his birth to have diabetes, but who got over it by the time he was eight months old under careful treatment (*Revue de Médecine*, June, 1893).

Treatment of Some Irritable Conditions of the Stomach.—According to Hemic, the cause of cardialgia is spasmodic contraction of the gastric openings, especially the cardiac. Above this there is often a dilatation of œsophagus, in which air and food are enclosed, giving rise to spasm. In dilatation of the stomach and very loose abdominal walls, it may go on without spasm to painful sensations in the cardiac end by traction of the full stomach on the œsophagus, and to collection of air from closure of the cardia after the organ is thus distended. Likewise, as a result of swallowing air, and after the ingestion of certain foods, cardialgia may be produced by undue distention of the stomach. By this immoderate distention cramp at the pylorus may also arise, although with pyloric spasm the distention is usually an effect of the cramp, not the cause of it, the spasm being set up by other conditions, such as irritating contents, especially when increased irritability co-exists of the pyloric portion. For spasmodic cardialgia many remedies have been tried. Subnitrate of bismuth enjoys a great reputation. Morphine acts quickly and strikingly, but temporarily, and leads to lax gastric walls. Gastric pain is produced by irritation of ulcers and sensitive spots in the stomach as well as by spasm. Food or over acidity of the gastric juice excites these places, and pain is the result. If these are supplied with a protective covering, much is done to relieve suffering and encourage healing at the same time. Russmend has recommended subnitrate of bismuth for this purpose. It can be taken in large doses with safety; and as it rapidly falls from watery suspension, it forms a covering for the irritable organ. The method adopted is to wash out the stomach, and pour in ten to twenty grains of bismuth in lukewarm water, and keep the patient at rest for half an hour until it settles; food may then be taken. At first the washing out may be daily; then on alternate days. Toxic symptoms do not arise. The results are excellent, as the troubles even in old and hopeless cases are relieved, and the feeling of improvement continues for several days. That bismuth actually forms a protective covering may be inferred from membranes of that substance seen when the next washing out takes place. It is probable that it is firmly deposited on ulcerated parts, and by its protective action relieves pain and lessens the motor unrest of the stomach and spasms. Over-acidity is diminished, and starchy food is better borne after.—*The Practitioner.*

The Aniline Products in Carcinoma.—In *The Annals of Surgery* Dr. Willy Meyer says: The use of the aniline dyes in the treatment of inoperable carcinoma (malignant growth) generally is "a palliative treatment," no cure. In *very* rare cases this treatment may cure. Carcinoma and sarcoma of hard type (especially the latter) are better influenced than soft ones; those of the soft tissues easier than of the bones; those with a scanty blood supply more successfully than rapidly growing neoplasms with abundant circulation. The disseminated cancer is no object for the aniline treatment. The treatment with parenchymatous injections requires a perfect knowledge and application of the principles of aseptic and antiseptic surgery. If a doctor does not understand them, or can or will not take time to follow them strictly, I should call out to him: "Hands off; do not try it; you must do harm, and will be disappointed; your tumor will soon suppurate and slough, and your patient die of acute or chronic sepsis." Without antisepsis the treatment is bound to harm rather than to do good. It also requires a good deal of patience and perseverance on the part of the surgeon as well as on that of the patient. It will, in the very best case, require a continuous attendance for many weeks or months. On account of the necessary antiseptic precautions, the treatment is time-robbing.

Significance of the Excessive Secretion of Uric Acid.—Dr. Herter believes that the deposition of amorphous urates in a sample of urine is pretty reliable evidence that uric acid is in excess, and the probability of this is increased if the density of the urine is less than 1.025. Unfortunately, we cannot conclude that urine which does not deposit urates does not contain too much uric acid. The early separation of uric acid as such from the urine, however, gives no real reason to think that it is present in actual excess. Every acid urine protected from putrefaction will deposit most of its uric acid in time. As a normal standard, is taken urine in which the proportion of uric acid to urea is about 1.50. When it rises to 1.40 uric acid is to be regarded as being excreted in excess. At 1.35, the excess is to be considered large; 1.30 is a very great excess, and higher than 1.20 is never found. The author regards an excess of uric acid as commonly due to disorders of digestion. Acute disorder of gastric or intestinal digestion temporarily increases it. A very large meal, the use of alcohol, or a large amount of sugar, act in the same way. He regards uric acid as formed by the breaking down of neuclein largely in the liver and spleen. Its excess does not give us information about a particular morbid state or diathesis, but rather indicates the existence of a defect in general nutrition that is, perhaps, commonly induced by the existence in the blood of toxic substances formed during the process of digestion. This being the case, such terms as "uric acid diathesis," and "lithemia," as commonly used, are incorrect and misleading. It does not seem likely that uric acid has much to do with chronic nephritis, since it appears to be rapidly and readily excreted by the kidneys. An increase of uric acid in the urine does not mean that the patient is suffering from the effects of an excess of it in the blood. For patients showing such a tendency, the wisest plan is to continue a mixed diet, in which all classes of food are represented, allowing as much starchy food as is consistent with the avoidance of uric acid excess. The

amount of uric acid excreted gives an objective basis for deciding the value of the line of treatment pursued. If a certain course reduces it to normal, it may be regarded as satisfactory. If, after several days, it fails to do this, it should be changed. It is extremely doubtful whether drugs given to eliminate uric acid really do so. Herter's own experience with piperazine led him to think that the trivial increase in uric acid reached after its use was to be attributed to slight disorders of digestion. He believes we have been attaching a too serious significance to uric acid in its relation to disease, and that the view that it is in any sense a factor in disease, except in a purely mechanical way, is destined to die out wholly.—*New York Medical Journal.*

Operation for Umbilical Hernia on the New-born Child.—M. Berger successfully operated on a female child thirty hours after birth, and exhibited it afterward at a meeting of the Obstetrical and Gynecological Society of Paris. The infant was born strong, breathing well. The umbilical hernia was of the size of a small hen's egg, and covered by the membranes of the cord. There was a distinct neck or pedicle as thick as a man's forefinger, and made up of integument alone, which was united to the membranes by a deep groove. The lower part of the hernia was reducible, and the sac was there transparent. Coils of small intestine showed through it; they could all be pushed back into the abdomen. The upper part was irreducible, and in close relation with the vessels of the cord. After birth the hernia and abdomen were well washed and dressed with iodoform. On the next day the hernial sac was opened, and the small intestine reduced. The irreducible portion consisted of the cæcum, the appendix, and about one-third of the large intestine, all intimately adherent to the membranes of the cord. A layer of these membranes had to be detached and reduced, together with the bowel. This manœuvre could not be done until a free incision had been made along the median line, as in abdominal section. The sac was excised. The peritoneum, the aponeurosis, and the skin were separately sutured. The operation lasted an hour and a quarter. The sutures were removed on the tenth day; recovery was complete at the end of a fortnight. Guéniot, in the discussion on Berger's case, referred to Lindfors' monograph "On Umbilical Hernia," which appeared last January in Volkmann's *Vorträge*. He said that, as in adults, very minute particulars in each case of this operation in infants would be needed. Nothing differed so much as two umbilical herniæ. Other abdominal viscera besides the intestine may lie in the sac, inseparably adherent, and the abdominal cavity may, by congenital defect, be much too small to hold all the herniated structures.—*The Canadian Practitioner.*

Syphilitic Changes in the Blood.—With a view of determining the causes of the paleness of the skin and mucous membrane observed in patients affected by syphilis, especially before the outbreak of the exanthem, and frequently after the lapse of years, Professor Neuman and Dr. A. Konried have systematically examined the blood in 200 cases of syphilis, and in 160 of them this was done repeatedly. The results of the examination were shortly as follows: The quantity of hæmoglobin diminishes even in the first stage fifteen to thirty per cent. The diminution remains constant at the commencement of treatment; with the number of inunctions, or under the use of other anti-syphilitic remedies, the hæmoglobin returns to its normal amount. Older untreated cases of secondary syphilis constantly show a diminution of the hæmoglobin. This diminution varies from forty-five to seventy-five per cent. The action of anti-syphilitic remedies is here plainly observable in the return of the hæmoglobin to a normal quantity. The low amount of hæmoglobin is characteristic of tertian syphilis. Treatment here brought about an improvement in the hæmoglobin, but not to the normal. As regards the red blood-corpuscles, the primary disease did not reduce their number in proportion to the hæmoglobin. With the development of constitutional syphilis they diminished to a third of the normal number; under treatment they returned to the normal. Too large doses of Hg. diminishes them again. Untreated secondary forms invariably showed a diminished number of red blood corpuscles, but treatment restored them to the normal amount. In tertiary forms the average proportion was four millions. There is therefore a diminution, but antiluetic treatment restores them completely, while in the same cases it does not altogether restore the hæmoglobin. The number of white blood corpuscles increases parallel to the diminution in the number of the red, and inversely diminishes with the increase of them. These investigations were to be continued in part *pari passu* with the determination of the specific gravity of the blood, as thereby many of the observations would be widened or completed. According to the views of the authors, for the future the qualities of the blood must be taken into account in regard to the symptomatic of syphilis, as the severity of the disease and the action of remedies will be thereby better judged of and better under control.—*Medical Press.*

Orchidopexy.—Dr. Jalaquier has performed this operation for testicular ectopy fifteen times in thirteen patients. Ten cases were unilateral, inguinal. Two bilateral cases were complicated with hydrocele or hernia. In all these cases there was communication with the peritoneal cavity. The most important point about these cases is the occlusion of the vaginal sheath, not the fixation of the testicle. His results were perfect in twelve patients. The cord always remained somewhat shortened, but the hernia had not been reproduced. The case that failed was in an epileptic child. Dr. Felizet believed testicular ectopy was a complex lesion, and that clinically the defective position of the organ was of secondary importance. There are two great classes of ectopy, the mobile and the fixed. Each has its own therapeutic indications. When the testicle is movable it is ordinarily normal, and the external orifice of the inguinal ring is enlarged. When it is fixed the ectopic gland is valueless. It is painful at times, atrophied, and nearly always associated with a hernia, which does not favor the descent of the organ. In these cases the ectopy and the hernia require treatment, and operative interference is always indicated.—*The Canadian Practitioner.*

Ganglionic Fever.—Dr. Moussons reports two cases of this disease, which was described by Pfeiffer in 1889, and Stark in 1890. The disease is said to occur in children between two and ten years. After a few days of malaise there is a sharp fever, accompanied by restlessness, headache, and vomiting. There is pain on movement of the neck, and difficulty in deglutition. On examination of the sides and back of the neck a great number of engorged glands are discovered; they are tender, moderately enlarged, and are distinct one from the other. Sometimes the enlargement is unilateral, but almost always it is bilateral; sometimes the submaxillary region is also involved. After a few days all the symptoms are less intense, a little fever may persist with hacking cough, some pain in the abdomen in the region of the umbilicus; finally there is obstinate constipation. One recognizes at once the enlargement of the lateral and posterior cervical glands, while those of the axilla and groin are normal. The liver and spleen may be slightly enlarged. There is often great emaciation and loss of strength. The author has noted in his cases some prolongation of the breath-sounds. In his case there was a distressing cough, which, with change in the breath-sounds, was supposed to be due to enlargement of the peritracheal glands. The cause of the disease is unknown. Stark believed it to be directly due to constipation, which favored the absorption of toxic material from the intestinal canal.—*University Medical Magazine.*

Clinical Department.

A CASE OF MYXŒDEMA WITH UNUSUAL FEATURES AND RAPID RECOVERY.

By R. B. KIMBALL, M.D.,
NEW YORK.

THE following case, that came under my observation during the past summer, seems to me to present two features of unusual interest.

1. The intercurrence of an acute and very extensive disturbance of the skin, apparently a vaso-motor neurosis, which appeared suddenly, persisted about four weeks, and disappeared in a few hours after the beginning of the thyroid treatment.

2. The extreme rapidity with which the myxœdemic symptoms disappeared under treatment, and the seeming completeness of the cure.

The patient was a woman fifty-five years of age, quite stout. Had borne four children, and always enjoyed good health until after the change of life. Since she attained her fiftieth year has been ailing continually, much of the time in bed. During this period of five years the hair has completely disappeared from her body. Her skin has become remarkably thickened and its sensibility impaired. She has never perspired at all. Her mental condition has undergone gradual deterioration. She has suffered constantly from dyspepsia and neuralgia, is hypochondriacal and suspicious. In fact, her life has been a burden to herself and her family.

I saw her for the first time July 18th. She had then an extensive discoloration of the skin that had appeared suddenly two weeks before and gradually increased in area and severity. Her limbs, chiefly in the extensor surfaces, were covered with large red blotches which were painful and sensitive. The entire extremities were much swollen. These spots came suddenly with burning and tingling sensations, were at first of a livid red, and gradually became purple and blue as they faded away, to be replaced by others. There was no rise of temperature, no general disturbance. The condition was not unlike Raynaud's disease, though it fell short of it in intensity. There was no gangrene. This condition grew steadily worse until the beginning of the thyroid treatment, July 18th. At that time her condition was as follows: She had no hair at all. Her scalp was dry and scaly. Her skin had a yellowish, waxy look, with red spots on each cheek. It was everywhere enormously thickened. This infiltration was especially noticeable about the eyes. These seemed half closed all the time, and this effect was heightened by the redundant overhanging eyelids and the curious elevation of the eyebrows. Her ears were massive, and protruded far out from her head. Her lips were very thick, and her tongue seemed doubled in size, and was protruded slowly and with difficulty. Her hands were so swollen that she could not approximate the fingers, and she used them awkwardly. Her speech was slow and drawling, and she often stopped in the midst of a sentence and forgot what she was talking about. She complained constantly of cold. The sensibility of the skin was greatly diminished—this was a most striking symptom. Flies would alight upon her face and crawl about entirely unheeded, and she had twice been severely burned with mustard without feeling the pain. Her digestion was very poor, entire loss of appetite, and all solid food distressed her so that she subsisted almost entirely on milk. All her acts were performed slowly and listlessly, and her whole appearance was suggestive of apathy and stupidity. She spent most of her time in bed swathed in flannels, seldom ventured out of doors, and never walked. Her mental condition was weak. She was slow of comprehension, querulous, obstinate, and suspicious of every one about her. Her temperature was subnormal, and averaged about 97⅘° F.; pulse about 100. Her urine, which was examined twice, was negative, except a very low specific gravity, 1002 to 1004. Daily quantity was not measured, though it did not seem immoderate.

Treatment was begun August 2d. The thyroids were administered in the form of capsules containing five grains each. She took three the first day, one after each meal. During the evening she had a violent chill, and at 9.30 P.M. her temperature was 103° F., with headache and vomiting. Temperature subsided gradually during the following day.

August 4th.—But one capsule was given.

August 5th.—She took one morning and evening.

August 6th.—She again took one after each meal.

No further febrile reaction occurred, but throughout the entire duration of the active treatment she suffered from nausea, indigestion, and extreme nervous irritability. On this account it was several times necessary to omit or diminish the capsules for a day.

It is curious to note that the vaso motor phenomena vanished immediately after the febrile reaction of August 2d. No new spots appeared, and those already existing faded rapidly away.

At the end of one week (August 9th) the effect of the treatment was already apparent. Patient looks thinner in the face and perspires slightly about the neck.

At the end of second week (August 16th) facial expression much changed. Natural lines about the face and hands beginning to reappear. There is a perceptible growth of new brown hair in the eyebrows. Perspires freely about the head and neck. Rapid absorption about the eyes makes them appear much larger. Pulse, 105; temperature, 98° F.

End of third week (August 23d). Patient has emaciated wonderfully. Looks haggard. Perspiration profuse. Face and hands look wrinkled, and expression entirely changed. Complains of nausea and diarrhœa; seems very weak and nervous. Thyroid capsules reduced to two a day. Prescribed strophanthus, 5 drops, strychnia sulph., gr. $\frac{1}{60}$, and milk punches three times a day.

September 4th.—Patient still weak and nervous. Has apparently lost fifty pounds. Skin seems soft and moist. Thickening noticeable only in ears and tongue, and slightly about eyes. Speech and ideas much more fluent. Nausea and diarrhœa not so marked, but still present. Reduced capsules to two every other day.

September 13th.—Patient returned to her home in New York City. Has greatly improved in strength and vigor since last reduction. Has been out to drive twice; walks down-stairs every day. The change in her appearance is startling, now that she is dressed. Her clothes hang loosely about her. Fine growth of new hair beginning to appear all over the scalp. Pulse about 90; digestion and appetite beginning to mend. Discontinued strophanthus and strychnia, and prescribed Fraser's chamomilla comp., ℥j, t.i.d. before meals. Still taking two thyroid capsules every other day.

September 22d.—I saw her in town. Patient was sitting at a second story window as I drove up, and came quickly down stairs to meet me. She looks very well and is vivacious and chatty. Has good appetite, sleeps well, can eat solid food. Hair has grown luxuriantly, and is one-fourth of an inch long. Pulse, 85; temperature, 98° F. Specific gravity of urine, 1020. Number of capsules reduced to two per week.

November 13th.—Saw patient after lapse of seven weeks. She seems perfectly well, is strong and ruddy, talks volubly, with no suggestion of her former drawl. Her family say that she is cheerful and amiable. Attends to her household duties. Walks about a mile every pleasant day. Has been down-town shopping (from Eighty-ninth Street) several times, and has taken a railway journey of thirty miles alone. Her hair is over an inch in length and is very thick. Eats everything, and is hungry except after taking the capsules. Pulse, 80. I could discover no trace of her myxœdema. In fact, she looks and acts like any healthy and contented woman of fifty-five. Advised her to take but one capsule a week.

December 7th.—Patient still perfectly well. Has taken no thyroids for two weeks.

24 EAST FORTY-FIRST STREET.

SUPPRESSION OF URINE FOR TWELVE DAYS, WITH RECOVERY.

By JOHN W. ROSS, M.D.,

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Hilary W——, white, aged ten, schoolboy, resident of Milton, Fla., came to me from Dr. Judge, of Milton, Tuesday, December 23, 1890. Had not urinated since the preceding Thursday, December 18th, suppression having come on during an attack of fever, probably malarial. Dr. Judge had used the catheter frequently during that time, but had found no urine in the bladder.

I also found the bladder empty, and it remained so until December 30th, when a pint of urine of low specific gravity, but otherwise normal, was voided by the patient.

In the interval there existed marked anæmia and the usual symptoms, though in a mild degree, of uræmic intoxication. There was extreme nervousness, and convulsions seemed frequently imminent, but no explosion occurred.

The treatment was perfect quiet in bed between blankets, constant rubefaction over the loins, diaphoresis, mild catharsis with calomel and salines, and milk diet. The reappearance of the renal secretion was shortly preceded by the occurrence of slight ptyalism.

Recovery was gradual, but uninterrupted, and in two months the patient was at school in his usual health. His mother stated that he had all his life had occasional brief periods of trouble with his kidneys, during which the urine would be scanty.

He continued in fair health for nearly three years, but died the latter part of September, 1893, of acute nephritis, apparently the sequel of malarial fever. During a visit to Milton I saw him once in his last illness, but found him moribund.

A PLEA FOR THE SLOW AND GRADUAL EXHIBITION OF ANÆSTHETICS UNTIL THE "FIRST STAGE," OR STAGE OF EXCITEMENT, HAS BEEN PASSED.

By JOHN B. RICHARDSON, M.D.,

LOUISVILLE, KY.

In your esteemed New York Medical Record of October 28, 1893, pp. 573 and 574, there appeared an article by Dr. A. M. Adsit, of Hastings, Mich., which well deserves to be written in enduring letters of gold upon the minds and memories of all physicians and surgeons—and this mode of administration should be emphasized by all teachers in our colleges—concerning the only proper and humane manner of administering anæsthetics.

For any one to speak of that "whereof he knows" he must have had personal experience, not in anæsthetizing others only, but having had another place him under the influence of an anæsthetic.

From my reading, experience (of thirty years), and interchange of opinion touching this subject, I am positive that a very large majority of my professional brethren deem it essential—more especially in the administration of ether as an anæsthetic—for the immediate and remote safety of his subject, that he must produce anæsthesia as rapidly as possible. This is almost tantamount to asphyxiation.

Dr. Adsit very truly says: "To avoid these bad effects (the initial disturbance of inspiration, preventing the proper aëration of the blood, and, as a result, we have the flushed face, the distended veins, the coughing, the jerky, catching respiration, and I add, that horrible dyspnœa, and its concomitant sensation, that you are powerless to exhale the irritating ether vapors already inhaled, and the feeling that your heart will burst from over distention, the increased flow of mucus, and the wild struggle for liberty), two rules must be observed: 1st, begin the administration with air lightly charged with ether; 2d, always permit all the air necessary to sustain life comfortably." Physicians seem to forget that neither chloroform, ether, nor any other anæsthetic can be substituted for air. "There is no good reason why a patient does not require as much air while taking an anæsthetic as at any other time. If you think that they secure the needed supply of air, place a cone over your own face and permit some one to hold it down tightly for five minutes."

Now this is not overdrawn, for I would much prefer the cone being pressed down tightly upon my face for five minutes, and take my chances for the small amount of atmospherical air, than to have that modicum surcharged with the vapor of ether or chloroform.

All of us probably have at times been able to anæsthetize children while asleep, but to enable us to do so, we had to dilute the anæsthetic with air freely at first, and administer it slowly, gradually increasing its strength, that no disturbance of the patient should occur.

If in thus seconding the mode of slow and gradual exhibition of anæsthetics—which my personal experience enables me to do—I shall influence some of my brethren to substitute this method for the rapid and sudden manner generally employed, and shall thereby save some poor mortals this greater suffering and shock than at times the operation performed proves to be, I shall not have pleaded in vain.

A CASE OF PAINLESS LABOR.

By THOMAS J. LARKIN, M.D.,

NEW YORK.

On November 24th I attended a case of labor, the conditions of which I have deemed sufficiently notable to report.

The patient, Mrs. M——, aged twenty-nine years, was a large woman weighing over two hundred pounds. She was the mother of three children, and gave the history of her former labors thus: First child was born in twenty minutes from the time of first pain; second labor lasted three hours, and the third two and a half hours. None of the previous labors had been protracted, but all had been accompanied by the usual sensation of pain.

The children, aged five years, three years, and thirteen months, respectively, are all living. Upon my arrival at the house, at 10 P.M., she complained of feeling nervous and announced that "the waters had broken at 9.30," but she had no pains. During the previous day she had had a pain in the back which lasted but a short time and disappeared after the application of camphorated oil. Upon examination I found the os dilated to the size of a silver dollar and the head in the median line. After waiting thirty minutes, during which time there had been no pain experienced by the patient and no sign of uterine contraction, a second examination discovered the cervix obliterated and the head in the vagina. Fifteen minutes later, at 10.45, the child, a boy weighing ten pounds, was born, the placenta following in ten minutes.

At no time during the labor had there been any sensation of pain, nor could the most careful palpation detect any evidence of uterine contraction. The thickness of the adipose tissue upon the abdomen prevented the most thorough uterine palpation; the after-history of the case was uneventful except for a complete relaxation of the uterus, which caused the fundus to ascend higher than the umbilicus. This was unaccompanied by flooding, however, and was overcome by strychnine sulphate, grain $\frac{1}{60}$, three times a day. The complete absence of pain and apparent absence of uterine contraction render the case noteworthy.

There was no loss of sensation in any other part of the body.

Inunction in syphilis is attended with an evaporation from the rubbed-in mercury, which is later on absorbed through the skin and by the lungs in considerable quantity. If an energetic action is desired, a portion of the ointment should remain smeared upon the surface.—Welander.

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"CENTRAL SUPERVISION" OF THE STATE HOSPITALS.

THE policy which the Lunacy Commission is pursuing will, if followed to its logical conclusion, result in the subordination of the State Hospitals to political control, and thus accomplish their inevitable ruin. From the first the Commission has proceeded along lines laid down many years ago by a coterie of politicians whose purpose and aim have been to bring all the departments of the public service of the State under their centralized management. This policy was boldly announced by the Commission, soon after it had begun active work, in the following terms: "The Commission does not hesitate to affirm, that in its deliberate judgment no great and enduring improvement in the management can reasonably be looked for until they (the State Hospitals) are put under more effective and thorough central supervision by the State than now obtains." The argument by which this proposition is sustained is based on the change in the management of the prisons and canals by which a single officer was invested with powers that the Commission declares are "so absolute that not even the Legislature can interfere . . . with their (his) appointment of subordinates." In anticipation of the enormous power which it would wield, and the immense patronage at its disposal should its policy of centralization succeed, the Commission declares that the interests concentrated in these hospitals "in the number of persons employed . . . rivals the canals and the schools, . . . surpasses by far the State prisons."

This is a prize which the politicians had long eagerly sought to grasp before the creation of the Commission, but the local Boards of Trustees, the superintendents, and the State Board of Charities, have stood as impregnable barriers to the accomplishment of their purposes. Even the original law organizing the Lunacy Commission was carefully drawn to protect the hospitals from the exercise of any executive control in their management by that body. In this respect the law closely followed the English Lunacy Commission Act, which, for nearly half a century has given to England the best administration of her institutions for the insane of any civilized country. Repeated efforts have been made to induce the English Commission to obtain from Parliament a centralization of executive powers in the management of the asylums, but it has steadily refused. The Earl of Shaftesbury, who originated the Act, and who was Chairman of the Commission for upward of a score and a half of years, always maintained that the usefulness of the Commission depended entirely upon its lack of power, and to the fact that its duties consisted in constant visitation of asylums and exhaustive inquiries into the management, with friendly advice and aid.

Though the projectors of the law creating the Lunacy Commission of this State were governed by the conservative opinions which have made lunacy administration so successful in England, the Commission created by the law was from the first inspired with the idea that reforms in the management of the hospitals could not be effected through the local Boards by friendly advice and assistance, but must be accomplished by its own assumption of executive powers. Instead of immediately making an exhaustive examination of all the institutions in order to discover defects of management, and attempt to remedy them by advice and friendly co operation, the first notable act of the Commission was to secure an amendment of the entire law. There are three noticeable features in the amended law, viz.: 1. The salaries of the Commissioners, already liberal, were considerably raised. 2. The regular and systematic visitation of hospitals, made statutory as in the English Act, were made discretionary, the reason of this change, as given by the Commission, being that the individual Commissioners had not the physical ability to make the required visits. 3. A much more simple and direct method of enforcing the orders of the Commission upon the hospital management. By these amendments the objects sought to be attained by the original law were largely nullified or perverted, and the first step in the direction of "central supervision" was taken. The physical inability of the Commission to make inspections became evident when left to their discretion, while the peremptory orders issued from the central office proved that their energies were diverted to another sphere of activity.

The passage of the State Care Act added to the power of the Commission, and the policy of "central supervision" was finally consummated by the Act of the last Legislature providing the necessary appropriations for the care of the transferred pauper insane. That law gave the Lunacy Commission full power to revise the monthly estimates of the asylums, and thereby not only to enter directly into the details of their management, but absolutely to control their operations. Practically, the local Boards are ignored, and the superintendents are brought into the most abject subordination to the central authority at the Capital. The last stage in the policy of "central supervision" of the State Hospitals, in accordance with the precedent of the prisons and canals, so highly commended by the Commission, will be the reduction of its numbers from three to one, and that one must be a partisan politician. This is the logical conclusion of the policy which the Commission has declared to the people of the State that it approves, has inaugurated, and is now zealously following. Admitting that the present Commission is composed of men who will wisely exercise their power and jealously preserve the State Hospitals from the contamination of political influences, the history of centralized power at Albany shows conclusively that sooner or later it brings disaster to the interest which comes under its control. It remains for the Legislature to determine how far the policy of "central supervision" of the

State Hospitals, under the plausible guise of economy, shall proceed to intrench itself in our State system of supervision of public charities. While we heartily approve of State supervision of the institutions for the Insane, as provided by the law of 1889, which also brought into existence the Lunacy Commission, we earnestly recommend that such duties be conferred upon a conservative body which can be relied on to build up and strengthen the institutions of the State, rather than to make them the medium through which it seeks to gain power and patronage.

THE HEALTH DEPARTMENT AND PULMONARY TUBERCULOSIS.

The recent decision of the New York City Health Board to adopt measures for the restriction and prevention of pulmonary tuberculosis deserves the commendation and earnest support of the medical profession. Although the communicable character of this disease has now been recognized for more than ten years, not until recently has its general acceptance by the profession justified sanitary authorities in taking active measures for its prevention.

While tuberculosis is an infectious disease, yet it differs so radically in nature from most other infectious diseases that a large proportion of the medical profession, although accepting the experimental proof of its infectiousness, have felt that more harm than good would be produced by the official and public declaration of its nature by sanitary authorities. The time has come, however, when this objection can no longer be considered as valid, and the action of the Health Department, in officially declaring it to be a communicable disease and in adopting measures for its prevention and restriction, must be considered as a step thoroughly justified and in harmony with the best public policy. The importance of this action cannot be over-estimated, for not only do we trust there is good reason to believe it will result in the course of a few years in a decided diminution in the number of cases of pulmonary tuberculosis in New York City, but the action of the New York Health Board is likely to be followed by sanitary authorities in other towns and cities throughout this country.

The work as determined upon is understood to be largely educational in character and preliminary to the adoption later of a more comprehensive scheme for dealing with this disease. The exact scope may be determined from the preamble and resolutions offered by Commissioner Edson and adopted by the Board, which are to be found on another page of this issue.

These were based on a report recently made to the Board on the subject of pulmonary tuberculosis and the importance of its prevention by Dr. Hermann M. Biggs, the pathologist of the department.

Whatever may have been the feeling of the medical profession in the past regarding the Health Department and its work, justice requires that after a review of the work for the last year, which includes the successful management of an outbreak of cholera in the fall of 1892, the stamping out of an epidemic of typhus fever in the winter of 1892–93, the developing of a scheme for the systematic bacteriological diagnosis of diphtheria, the successful limitation of an outbreak of small-pox in the fall of 1893 and last, but not least, the measures recently adopted for the prevention of tuberculosis, the profession should accord due credit to it for having taken a most advanced stand regarding the diagnosis, management, and general sanitary surveillance of contagious disease.

DO THE SICK EVER SNEEZE?

For somewhat over twelve months the readers of medical literature have been confronted in small caps with the conundrum: "Do the Sick Ever Sneeze?" We do not know why this inquiry has become so popular; no prize has been attached to its proper answer; in fact, comments and replies are not even solicited. But the simple query has been travelling around from Sheffield and London to Texas, Oregon, and Philadelphia, and it has not been answered yet. There are some problems which the human mind shrinks from grappling, sometimes because they are too deep, and too consuming, or again, because we dread the consequences of an awful certainty. No medical man has yet dared to come out squarely and say in so many words that the sick do or do not sneeze; and the world is curious to know whether this is due to fear or incompetency; or is it that doctors simply do not know?

Perhaps despite the fact that this question—which was first thrown upon the world by Mr. Jonathan Hutchinson, the greatest living authority on a number of things—we say despite the fact that this question has been so continually pressed home to students of medical science, it may not yet have made the impression it ought. There is a deal of flippancy in the world and some may have said on reading the inquiry: supposing the sick do sneeze, or do not, what the dickens is the odds? Well, we shall still have cakes and ale irrespective of sternutation, but science exists for the purpose of adding to the eternal verities; hence, the question of sneezing must be dealt with seriously and answered in accordance with the illumination furnished by thorough and matured knowledge. It cannot be lightly thrust away by appealing to points of economics.

We are aware that collective investigation is a little out of fashion, but here is an opportunity for fruitful work, and we should like to have our readers lay aside mental indolence and address themselves boldly to Mr. Hutchinson's problem in hyperkinetics: "Do the Sick Ever Sneeze?" The eminent author himself has never seen a sick man sneeze; on the other hand we venture to say that we have never seen a man sneeze who thought he was perfectly well. Between these wide ranges of experience there lie rich fields, fructifying study.

THE TEXAS DYSENTERY CURE.

Down in Texas there is some excitement and hopeful anticipation over the supposed discovery of a new and sure cure for dysentery. Dr. R. T. Knox, of Gonzales, tells about it in the *Texas Medical Journal*. He had himself suffered from this malady for three years and had tried many things in vain. He had become reduced from one hundred and ninety-six pounds to one hundred and forty-two. Irrigation, hydrastin, lactopeptin, bismuth, opium, salol, petroleum, silver, milk, fish, roast potato, and infant foods, were all useless. Horse-radish root chewed and the juices swallowed did the most good. Finally a

farmer advised him to try the infusion of a shrub known as Bisbiranda armagosa or chappero bush, which had much repute among the Mexicans. He tried it and began to get well, in two weeks he was convalescent and he was eventually cured. The journal reports two other cases cured and expects to add to the list soon.

We trust that the chappero will turn out to be all that is expected. The records of clinical medicine, however, are full of cases of apparently hopeless dysentery cured by very different agents. One should read the autobiography of Dr. Marion Sims to appreciate this fact.

THE TEMPERAMENTS.

It is interesting to find that so thoroughly scientific a man as Professor William Preyer has adopted the four-fold classification of temperaments made nearly two thousand years ago, namely, the choleric, sanguine, melancholy, and lymphatic. The existence of one or the other of these temperaments may be discerned, he says in his work on "The Infant Mind," very early in the great majority of children—in the second quarter of the first year, beyond a doubt.

Nearly every one who has written about temperaments has gotten up a classification of his own, Galen had nine, Haycock gave six, Graham Brown, seven, and others have got down as low as two. Modern writers use the word nervous for choleric and bilious for melancholic temperament. With these verbal modifications the old classification seems to answer all practical purposes, and individuals can build up combinations as needed.

Hutchinson defines temperament as the sum of the physical peculiarities of a man exclusive of his tendency to disease. This is not very satisfactory, though, perhaps, temperament is a thing a little too vague to be satisfactorily defined. In modern terms it may be said to be the peculiar way in which the individual reacts to the stimuli of his environment. There is no doubt that one class of persons reacts quickly and easily, expending energy profusely and often needlessly in their life work; others react hopefully and work buoyantly yet with less waste. We can thus distinguish the nervous, the sanguine, the melancholic, etc. A capacity to recognize and appreciate the importance of temperament used to be considered part of a sound medical training. It has been too much neglected in our pursuit of minutiæ with microscopes and test-tubes. Our teachers of practical medicine might well revive its study.

DOES EXALGINE POSSESS LOCAL ANÆSTHETIC PROPERTIES?

Exalgine is a derivative from acetanilid, made by the substitution, for one hydrogen atom of the latter, of the methyl group CH_3. Both have the same general power to lessen painful sensation, and to lower bodily temperature. In a recent number of the *Bulletin Médical du Nord*, Combemale gives the result of a series of experiments made to ascertain whether or not exalgine possesses any local anæsthetic power.

The experiments were made upon six dogs and one guinea-pig. The solution used consisted of exalgine, one gramme; alcohol, five grammes; and distilled water, twenty grammes. It was placed in the conjunctival sac, in the nares, and injected into the subcutaneous cellular tissue in the proportion of two milligrammes for every twenty centigrammes of bodily weight. The sensibility of the skin and mucous membranes with which the remedy had been brought in contact was tested immediately and during the half-hour succeeding the injections.

In general terms the results were as follows: In all cases, no matter what the avenue of introduction, the quantity of saliva was greatly increased. There was no constancy in the effect on the conjunctiva above the uniform congestion. In some instances the corneal sensibility was somewhat lessened. The dimensions and mobility of the pupil did not appear to be at all influenced. The effect seemed to appear far more quickly from instillation into the nares than into the conjunctival sac.

Combemale concludes that the remedy has a definite anæsthetic action, but that it is very small in degree and very transitory. It may be sufficient for exploratory manœuvres and for momentary operations.

News of the Week.

The Return of the Grip.—The prevailing despondency and stringency in medical circles might be somewhat relieved by a vigorous prevalence of the grip. Yet physicians do not anticipate its coming with any less alarm than other classes. For the grip seems to take a particular fancy to doctors, and to lay them up to a disastrous extent.

The Murderer of Mayor Harrison, Prendergast, is considered insane by most of the alienist experts of Chicago who have examined him.

Sir Andrew Clark's Will.—The will of Sir Andrew Clark, who died a few weeks ago, disposes of a property worth $1,021,000. A legacy of $2,500 is to be used in founding a medical scholarship at the London Hospital. The rest is to be distributed in the family. Sir Andrew started life as a poor boy, and died a millionaire. His income for many years was very large, yet it is difficult to believe that any physician can earn a million of dollars by professional work alone.

The Profession and Managing Boards.—Referring to the criticisms that have been made of the New York Infant Asylum Managers recently, the *Post-Graduate* says: The profession ought to have an aggressive and defensive union against hospital managers that behave in this way; but how to remedy the condition of things until the profession respects itself and refuses to take places that other men have resigned on account of bad treatment, we cannot say. It is a vast question, this of the relation of medical boards to boards of managers. In some hospitals it is solved by having the doctors on the board with equal powers with their fellows. This, we think, is the happiest solution. Men cease to quarrel with each other, if they are gentlemen, when they sit down face to face with equal rights, but separate them and let accounts of what the others think and do, come as rumors, or exist only in suspicions, and difficulty is inevitable.

The Academy and Politics.—Pretty soon it will be said that the Academy is going into politics, when it recommends that vaccination shall be enforced by law, or that school-houses be ventilated. This great fear of poli-

tics invading scientific bodies sometimes comes from men who are engaged in personal and "peanut" politics of the first order. There is no danger that the Academy of Medicine will ever engage in anything like partisan politics, but attention to the higher hygienic sanitary and medical matters pertaining to the commonwealth it must give, or sink to the position of being an asylum for decayed essayists on "The Virtues of Vegetable Extracts," and "The Significance of Supernumerary Toes."—*Post-Graduate.*

The Bill to Regulate Medical Practice in the State of Georgia has failed to become a law. It was defeated chiefly through the agency of eclectics. Georgia has been a particularly fertile field for cheap medical schools and cheap doctors. The State has now at least five medical schools, and in its history are the records of seven others which have lived a variable period.

The First State Hospital for Epileptics.—Thanksgiving-day was observed with peculiar appropriateness in the little town of Gallipolis, in the southern part of Ohio, for the day marked the opening of the State Hospital for Epileptics, the first of its kind in this country.

The Next Meeting of the American Medical Association will be held at San Francisco, on the first Tuesday in June, 1894, instead of on the first Tuesday in May, in order to permit of a discussion of the Code by the various State Societies that meet just before the meeting of the National Association.

Tufts College Medical School.—This new venture, in Boston, is designed for both male and female students. The first year's class contains over seventy pupils. The school has temporary quarters at No. 188 Boylston Street.

St. Luke's Hospital.—Dr. Van Horne Norrie has been appointed an attending physician, to succeed Dr. George L. Peabody.

The End of an Uncalled-for Action at Law.—Last Saturday Commissioner Fairchild, sitting in Buffalo, dismissed an action that had been brought by Mr. Anthony Comstock, against a firm engaged in the manufacture of surgical tables, for having sent through the mails circulars illustrating their wares by means of pictures showing nude persons in various attitudes on their tables. We are informed that these delineations are reproductions of those published in the reading-matter of different reputable medical journals, and that the circulars are sent to members of the medical profession only. That being the case, it does not seem to us that Mr. Comstock was justified in his attempt to suppress them.

The Revolt of the Brazilian Medical Staff.—The entire medical staff of the Brazilian navy, which has been loyal up to the present time, has joined the forces of the insurgents and placed itself under the orders of Admiral Gama.

Bequest for a New Hospital.—The late Mrs. Johnson, of San Francisco, has bequeathed the sum of $6,500,000 to found a free hospital in that city. The money is in the charge of Archbishop Riogan.

Vacancies on the House Staff at the Woman's Hospital.—A competitive examination of candidates for positions on the House Staff of the above Institution will be held at the Hospital, Forty-ninth Street and Fourth Avenue, on Thursday, January 11th, at 3.30 P.M. Gentlemen wishing to present themselves will address Bache Emmett, M.D., 18 East Thirtieth Street, New York.

Dartmouth Medical College, New Hampshire.—The following appointments have been made: George A. Leland, M.D., of Boston, Professor of Laryngology, in place of F. H. Hooper, M.D., deceased; Tilghman M. Ballist, M.D., of Philadelphia, Professor of Therapeutics, in place of H. M. Field, M.D., resigned; Gilman D. Frost, M.D., of Hanover, Professor of Anatomy, in place of L. B. How, M.D., deceased.

Dr. G. Baumgarten writes: "A short paragraph has just come to my notice in your issue of October 14, 1893, page 512, concerning a 'Dr. Jacob Hartmann, of St. Louis Medical College.' There is no such person connected with the St. Louis Medical College."

"**Grip of the Abdominal Type,**" says Dr. H. F. Eichacker, of this city, "prevails quite extensively among the children of the poorer classes. The main symptoms are abnormal high temperatures—103 to 105° F., with anorexia and decided meteorismus, no pulmonary disturbances. The onset is always sudden. The disease usually lasts from five to eight days, and ends in a mild bronchitis."

The Late Dr. William F. Hutchinson.—At a meeting of the Executive Council of the American Electro-Therapeutical Association, the following resolutions on the death of Dr. William F. Hutchinson, of Providence, R. I., were unanimously adopted:

Whereas, It becomes our painful duty to announce the death of Dr. William F. Hutchinson, one of the Foundation Fellows of the American Electro-Therapeutic Association as well as the First Vice-President of the same, and

Whereas, in his death we lose a warm and faithful friend, a valued associate, and an accomplished member of the profession, therefore be it

Resolved: That this Association desires to place on record its appreciation of his genial spirit, his active co-operation in the work of the Association, and of his deep interest in the scientific questions of his chosen profession.

Resolved: That we express our sincere regret and heartfelt sorrow at his death.

Resolved: That we tender to his sorrowing family an expression of our profound sympathy in their great loss.

Resolved: That a copy of these resolutions be sent to the bereaved family, to the medical journals, and that they be spread upon the minutes of the Association.

AUGUSTIN H. GOELET, M.D.,
W. J. MORTON, M.D.,
G. BETTON MASSEY, M.D.,
ROBERT NEWMAN, M.D.,
CHARLES R. DICKSON, M.D.,
Executive Council.

Four Full Courses in the Rush Medical College.—The trustees and faculty of Rush Medical College have given notice to the Secretary of the American Medical College Association that at the next meeting they will introduce a resolution requiring all students who begin their studies in the fall of 1895, to attend four full courses

of lectures in the Medical College, of not less than six months each, providing that graduates of all literary and scientific colleges of good standing shall be allowed to graduate in three years, and providing that graduates of dental colleges requiring three full years of study may be allowed to graduate in two years, and that graduates of dental and pharmaceutical colleges requiring only two years of study, may be allowed to graduate in three years in the medical college.

Dr. L. Younghusband has been appointed a member of the Board of Health of Detroit.

Liability of a Physician for Selling Intoxicating Liquors in Iowa.—The Iowa statute which prohibits the sale of intoxicating liquors, makes an exception in favor of licensed physicians, permitting them to dispense, in good faith, such liquors as medicine to patients actually sick and under their treatment at the time of such dispensing. The defendant in the case of State *v.* Field, decided by the Supreme Court of Iowa, October 5, 1893, was a physician and kept a drug-store. The evidence showed that people would go to his store and ask for "red medicine," which meant whiskey, or "white medicine," which meant alcohol, and obtain it. The theory of the defence was that whatever was obtained was prescribed by the dispenser as medicine. The trial court instructed the jury that if it found that the liquor was sold and dispensed, as by a physician to patients actually sick and under his treatment, to acquit. This the Supreme Court said was a correct statement of the law as applicable to such a case, and that it would not be correct to add to the charge the clause, "or whom the doctor believed to be actually sick."—*Journal of American Medical Association.*

New York's Laws for the Insane.—The laws of New York and Massachusetts have placed those States in the foremost rank of intelligent and liberal care for the insane. The enactments regulating the commitment to asylums, and the care while there, of the insane, and especially the State Care act of New York, have been in the main wise and beneficent. The weak point in the New York law is that a plan for centralizing in a State Commission power as to details of management of the hospitals, which was overwhelmingly defeated in the Massachusetts Legislature, has become part of the New York statute, and that the Lunacy Commission, which ought to be a purely supervising and advisory board, has executive functions which are not only needlessly vexatious to the hospital managers and medical officers, and prejudicial to the interests of their patients, but also may be destructive of good morals. The managers and medical officers of the hospitals for the insane have taken courage from the political upheaval in their State, and are attempting a reform, in which we wish them every success.—*Boston Medical and Surgical Journal.*

Royal College of Physicians.—Dr. Russell Reynolds has succeeded Sir Andrew Clark as President of the Royal College of Physicians.

A Congress of Quacks.—A motley assembly, claiming to be a "National Congress for the Free Practice of Medicine," met in Paris on November 20th. All sorts and conditions of irregular practitioners—*masseurs*, magnetizers, faith-healers, bone-setters, *et hoc genus omne*—were invited to take part in the proceedings, the only essential condition of membership apparently being the fact of being engaged in the practice of the healing art without a legal qualification. In such a gathering the possessor of a regular diploma would have been as much out of place as the *testiculi sibi conscius mus* in the temple of the Bona Dea. Unfortunately, no report of the proceedings has reached us, but it is not difficult to imagine the nature and general drift of the discussions. A special feature of the "Congress" was that patients who had been cured by members of the unqualified fraternity were invited to come forward and recount their experiences, for all the world like the brands snatched from the burning at a revival meeting. When the Greek philosopher Bion had his attention called to the votive offerings of persons who believed themselves to have been saved from shipwreck by the power of the gods, he answered, "But where is the list of those who were drowned?" The moral of which remark lies, as Jack Bunsby would say, "in the application of it."—*British Medical Journal.*

The Presbyterian Hospital Refused to Send an Ambulance.—The refusal of an attendant in the office of the Presbyterian Hospital to allow one of the hospital ambulances to convey the Rev. Charles N. Douglas, the assistant rector of the Church of the Redeemer, Park Avenue and Eighty-second Street, to St. Luke's Hospital, December 15th, may result in Mr. Douglas's death. He was at the church Friday evening. In the middle of the choir rehearsal, at 9.30 o'clock, he was suddenly seized with a coughing fit, and, sinking into a chair, had a hemorrhage. Mr. Douglas was carried into the vestry, and the Rev. W. Everett Johnson, the rector, and Dr. J. B. White, of 1013 Madison Avenue, soon arrived. Dr. White pronounced the case pleuro-pneumonia, and he urged that the patient be taken to a hospital with all possible haste. Mr. Johnson telephoned to St. Luke's Hospital, but as that institution did not have an ambulance at its immediate disposal, Mr. Johnson telephoned to the Presbyterian Hospital. The attendant who answered the telephone curtly replied to the request for an ambulance to convey a patient to St. Luke's Hospital with a "Certainly not." He said that they would send an ambulance if the patient was to be brought to the Presbyterian Hospital. Mr. Johnson would not consent to this, but Mr. Douglas's condition was getting worse, and finally it was decided to send him to the Presbyterian Hospital. About one o'clock in the morning the ambulance arrived, and Mr. Douglas is now in a serious condition in the hospital. A *Tribune* reporter saw the attendant last night who answered Mr. Johnston's telephone calls. He said: "Certainly I refused to allow one of our ambulances to be used to carry a patient to St. Luke's Hospital. What do the people think we are? A public institution? Not a bit of it; this is a private hospital." He did not consider the possible propriety of criticism upon the refusal of the Presbyterian Hospital to give the use of one of its unemployed ambulances to the Episcopal St. Luke's Hospital, especially considering that a clergyman of a sister church was in great danger of dying. [The proper remedy for such an outrageous ambulance service is to place the entire ambulance system under the charge of the police, who should be empowered to compel all ambulances of so-called "private" hospitals to do such work as the police may direct.]

Reviews and Notices of Books.

A Contribution to the Pathology of the Vermiform Appendix. By T. N. Kelynack, M.D., Pathologist to the Manchester Royal Infirmary, etc. 8vo, pp. 222. London: H. K. Lewis. 1893.

This volume presents the main results of an extended investigation into a number of points connected with the pathology of the cæcal appendage. These comprise accounts of the anatomical character of the organ, its anomalies of position, and the pathological conditions as bearing upon symptoms, diagnosis, and treatment. The author has collected a large number of statistical data to prove many important points bearing upon the distinction between operative and non-operative cases, and in this way has given a decidedly practical turn to the purpose of the book which will be duly appreciated by the surgeon. His conclusions, based on pathological conditions, are not at variance with the present accepted views of operators. While laying proper stress upon the fact that many cases can recover without operation, all doubts are dispelled in those cases in which there are evidences of acute perforation, gangrene of appendix, or circumscribed abscess, and in which surgical interference is necessary to avert death. The bibliographical index is the most complete of its kind that has yet been published.

An Account of Bellevue Hospital, with a Catalogue of the Medical and Surgical Staff, from 1736 to 1894. Edited by Robert J. Carlisle, M.D. Published by the Society of the Alumni of Bellevue Hospital. 8vo, pp. 376. New York. 1893.

With the design originally of making a complete catalogue of the consulting, visiting, and resident staffs of Bellevue Hospital, we have in the present handsome volume an elaboration of the same in the appearance of a well-written and intensely interesting history of the hospital itself, with admirable portraits of several deceased members of the consulting staff. The portraits of Mott, Wood, Clark, Barker, Van Buren, Parker, Flint, Taylor, Hamilton, McCready, Crane, Sands, and Dalton speak again to the hundreds of alumni who may wish to revive the pleasant associations within the wards of the grand old hospital. The history thus presented to the ex-interne is one of the reminders of the times gone by which he will fain cherish in connection with those earlier precepts and examples which have made his subsequent successes possible. Bellevue has always been justly proud of her record, her graduates number more subsequently distinguished men than any other similar institution in the land. The editor, with a painstaking endeavor to make the book worthy of its name, has succeeded in infusing into its make-up an amount of purely literary merit which calls for hearty congratulations. The account of the founding of the hospital, dating back since 1736, is full of historical facts systematically arranged and interestingly told. The same may be said of the accounts of the different members of the staff, which in themselves constitute a study of successful work in this and other parts of the country worthy of careful contemplation.

The work is the best of its kind we have seen, will be invaluable to the alumni of Bellevue Hospital, and a notable addition to the medical history of New York.

Bryce's Pocket Practice. A Complete and Condensed Work on the Practice of Medicine for Physicians and Students. By Clarence A. Bryce, M.D., author of "Bryce's Visiting List," "Physician's Companion," etc. Richmond, Va.: The Southern Clinic. 1892.

This coat-pocket volume, prepared by the editor of the Southern Clinic, is intended to meet the wants of the "rank and file" of the profession. The author believes it absurd to claim that the majority of diseases are induced by the action of micro-organisms. Erysipelas is classified as one of the eruptive diseases, and its contagiousness is doubted. Painting iodine or nitrate of silver upon the skin to check the advance is considered worthy of trial, while scarification, pressure with adhesive strips, and the more modern local dressings are not mentioned. Under Asiatic cholera, the author appears to make an exception to his general disbelief in micro-organisms, for we find it stated that "this is a disease due to some specific germ, and seems to be carried rapidly over vast areas in the atmosphere." This and other statements are so at variance with accepted teachings, that we could not recommend the book to students or, for that matter, to practitioners, unless to be read in connection and comparison with larger works.

Transactions of American Orthopedic Association. Sixth Session, held in New York. Vol. V., 8vo, pp. 282. Philadelphia, 1893.

This volume contains interesting papers on hip disease, caries of cervical vertebræ, but notably on the treatment of club-foot, supplemented, in the discussion of the latter subject, with some admirably practical remarks from the veteran orthopedist, Dr. L. A. Sayre, of this city.

Diseases of the Skin. A Manual for Students and Practitioners. By Charles C. Ransom, M.D., Assistant Dermatologist, Vanderbilt Clinic, New York. Philadelphia: Lea Brothers & Co.

Here we have another of those attractive looking green-covered little volumes of the Students' Quiz series, edited by Dr. Gallaudet. Like its fellows, it is made up of a succession of questions and answers. Not always the kind of question you would expect a quiz master to propound, but still one giving an opportunity for instructive information under the guise of an answer. These answers, too, are sometimes quite lengthy, and embrace the whole subject of etiology, symptomatology, and treatment of the disease under discussion.

The illustrations are chosen for the most part from familiar text-book and periodical plates, and preponderate rather with exaggerated and rare examples of disease or malformation. If it were possible, it would be much better to offer the student good pictures of the every-day eruptive appearances. The student who possesses this quiz book, or any book on the subject, must remember that to learn dermatology either the eruptions themselves or accurate reproductions must be seen and studied. It cannot be learned by quizzing.

The author has accomplished a not most-pleasing task in a creditable manner, and the subject matter will be found up to date, and conforming to the teaching of leading writers.

Brain Surgery. By M. Allen Starr, M.D., Ph.D., Professor of Diseases of the Mind and Nervous System, College of Physicians and Surgeons, New York, etc. 8vo, pp. 295. New York: William Wood & Co. 1893.

This book is a timely one from an authoritative source, and will be eagerly perused by everyone interested in the study of brain lesions and their proper diagnosis and localization for operative purposes. The talented and painstaking author has collected an amount of material which in itself would be of the greatest value independent of the careful deductions which he has offered as the result of an exhaustive study of his subject. The illustrations are admirably executed and are in great variety, showing the well-recognized areas of cerebral localizations, methods of measurement, and localization of the same, with all the necessary details of operative technique. The author, although enthusiastic in the treatment of the subject and naturally optimistic in reference to many points of diagnosis and treatment which are still *sub judice*, is very candid in his recommendations and fair in his conclusions. After a careful study of the chapter on epilepsy in its relation to trephining, we are prepared for the explanation of the numerous cases of failure after operation in the complex character of lesions, which

oftentimes makes the removal of the entire area of diseased conditions impossible, notably the resulting and progressive inflammatory changes after the original injury. It would also be gratifying to learn of fewer failures when the removal of localized tumors was attempted, but the successes have, however, been sufficiently numerous to afford every encouragement for future experience and research. At present we are forced to admit that the diagnosis cannot always be surely made, and that the most careful study of clinical history, constitutional tendencies, and localizing phenomena is necessary in every case, even after a supposed syphilitic element is eliminated by a three months' trial of mercury and the iodides. The author very properly lays great stress on the two essential preliminaries to any operation upon the brain, viz., the diagnosis of the nature of the disease which is present, and of its precise situation. Between these two possibilities there is an amount of accurate knowledge, sound reasoning, and familiarity with the recognized pathological probabilities, which call for sound medical, as well as surgical, knowledge. Altogether, the work is of a character which we might expect from the well earned reputation of the author in his chosen branch, and as such is a most valuable contribution to the study of a new departure in surgery which has achieved triumphs in the past and promises great things for the future. The chapter on trephining is, from its purely practical side, a leading feature of the work, and cannot in the space allotted it be improved in completeness of necessary detail.

Transactions of the Southern Surgical and Gynecological Association. Vol. V. Fifth session, Louisville, Ky. Published by Association. 8vo, pp. 434. 1893.

This progressive Association has presented its usual interesting yearly volume pertaining to the two branches to which it devotes its energies. There is a distinct effort to make the papers of value to the general practitioner. The majority, as might be expected, bear upon gynecology and abdominal surgery, although there is one paper on brain surgery and another on hare-lip, showing bold strokes in an upward direction. To such as are interested in gynecology, the work will be specially valuable.

The Pharmacopœia for 1890.

This work, which has just been placed upon the market, becomes official on January 1, 1894. It contains the usual variety of information, historical, chemical, and pharmaceutical, which we are accustomed to find in such a volume. To the practising physician the principal interest centres around the changes which have been made since the publication of the last decennial revision in 1883. Eighty-eight new titles have been added and ninety dismissed. Among the more notable additions may be named: acetanilid, citrate of caffein, hydrochlorate of cocaine, convallaria, eucalyptol, glycerites of carbolic acid and boro glycerine, hydrogen dioxide, hydrobromate of hyoscyamine, menthol, methyl salicylate (artificial or synthetic oil of wintergreen), naphthaline and naphthol, pancreatin, paraldehyde, salol, sulphate of sparteine, the strontium salts (iodide, bromide, and lactate), strophanthus, terebene, terpin hydrate, and viburnum opulus. We think many will feel surprised that cascara sagrada has been supposedly omitted, but they will find this useful remedy under the heading of Rhamnus Purshiana.

Among the articles dismissed are, first of all, the entire class of abstracts which have proven a failure, principally because the great number of pilules and triturates upon the market have rendered them useless. Several little-used preparations of various drugs and salts are no longer included. Ignatia charta, cantharidis, and juniperus were, but are not. Also our venerable friend, azedarach, has joined the great majority.

The list of changes of official Latin and English titles, especially the latter, is somewhat lengthy. Acetate of lead becomes lead acetate, etc. The spelling of certain words is also changed, *e.g.*, creasote to creosote, opium denarcotisatum becomes opium deodoratum.

The Committee on Revision have introduced the metric system throughout the volume. The old spelling of salts (bromide instead of bromid, etc.) is adhered to. Emulsum replaces mistura in the case of several liquid preparations (ammoniæ, almond, asafœtida, and chloroform).

The fluid preparations of opium remain as before of ten per cent. strength, with the exception of paregoric (4 grammes per 1,000 c.c.). By the new method of assaying, the stronger preparations are required to yield 1.3 per cent. to 1.5 per cent. of crystallized morphine.

All compounds are very properly excluded from the Pharmacopœia which are protected by proprietary rights, or which can be manufactured only by a patented process.

The value of an intimate knowledge of the Pharmacopœia goes without saying, but if the truth must be told, we believe that physicians generally are very neglectful on this point. The many mistakes made in prescribing incompatibles would mostly be avoided if the Pharmacopœia was frequently consulted. Though it is in one sense a technical book, yet anyone of average intelligence about matters medical can understand it. No intelligent physician in general practice can afford to be without a copy. The new edition, in point of manufacture, is quite inferior to the sixth revision, published by Messrs. William Wood & Co.

The Treatment of Constitutional Syphilis. By Oswald Ziemsser, M.D., Wiesbaden. Pp. 70. London: H. K. Lewis. 1893.

The author, living at a well known German health-resort, has had an extensive practice in treating all forms of syphilis. He believes that general curative treatment should be commenced as soon as possible after infection. He believes that the notion of local preventive treatment is based on fallacious premises. The bulk of the work is given up to a careful description of the various methods of administering mercury and iodides.

Cholera. Its Causes, Symptoms, Pathology, and Treatment. By Roberts Bartholow, M.D. Pp. 132. Philadelphia: Lea Brothers & Co. 1893.

In this addition to the literature of cholera the author traverses the usual ground, and incorporates his personal experience in two epidemics of the disease. He discusses all the modern plans of treatment, and believes that our therapeutical measures are attended with a constantly increasing improvement in the proportion of cures. On the whole, we believe that Dr. Bartholow's book is the most satisfactory of all the host of short works on cholera which have appeared in the last two years.

The Law of Cremation. By Aubrey Richardson. Pp. 187. London: Reeves and Turner. 1893.

The author of this work, a son of Sir Benjamin Ward Richardson, has collected from the legal literature of various countries much valuable information on the question as to whether a person can determine for himself as to the mode of disposal of his remains after death, or whether such disposal is entirely in the hands of his executors. He outlines the laws relating to cremation in ancient and modern times, and gives the rules and regulations of various cremation societies in all parts of the world. Himself a lawyer, his pages bear the imprint of extensive research and cautious observation. We believe that Mr. Richardson's book is a valuable contribution to the literature of a matter of absorbing interest.

On Snake Poison: its Action and its Antidote. By A. Mueller, M.D. 8vo, pp. 85. Sydney L. Bruck. 1893.

This work sets forth the advantages of the treatment by hypodermatic injections of strychnine, which the writer claims to have discovered a few years ago. His pages include a historical review, careful inquiry into the effects of the virus on different bodily tissues, and then

elaborates the special antidote treatment indicated. A chapter of clinical cases is added, together with an analysis of the causes of failure in certain fatal cases. The tone of the writer is at times polemical, but he makes a good presentation of the subject.

Cholera for Lay Readers. By Walter Vought, Ph.B., M.D., Physician in charge of the Fire Island Quarantine Station, Port of New York, etc. Pp. 105. Philadelphia: F. A. Davis. 1893.

Nothing new to the physician can be expected in a manual of this kind, which traverses only the conventional ground indicated by its title. We regard as its most important chapter the one which proves that, and shows how cholera may be prevented. Full directions for disinfection, etc., are given.

The Era Key to the United States Pharmacopœia for 1890. Detroit: D. O. Haynes & Co. 1893.

This is a small pocket manual containing an alphabetical list of the preparations of the new Pharmacopœia, with doses; convenient for reference.

Hernia: its Palliative and Radical Treatment in Adults, Children, and Infants. By Thomas H. Manley, M.D., New York, visiting Surgeon to Harlem Hospital, etc. 8vo, pp. 227. Philadelphia: The Medical Press Co. 1893.

The revival in recent years of the study of hernia has led to a perfect deluge of literature on the subject, with the result that we have had many indifferent and a few good contributions to our previous knowledge. The author finds in his dissatisfaction with existing treatises his justification for the preparation of still another. The work goes over the whole field with considerable minuteness, and is illustrated with numerous woodcuts, many of which are original, having been drawn from the writer's preparations.

The absence of a table of contents renders it somewhat difficult to give an outline of the author's views, and the index is so incomplete as to be practically worthless.

Physician's Chart-Book. New York: Bailey and Fairchild. 1893.

This is a pocket edition with the usual chart-rulings for pulse, temperature, etc. It has no practical differences from dozens of its class.

Minor Surgery and Bandaging, including the Treatment of Fractures and Dislocations, Tracheotomy, Intubation, Ligation of Arteries, and Amputations. By Henry R. Wharton, M.D., Demonstrator of Surgery, University of Pennsylvania, etc. Second edition. 8vo, pp. 529. Philadelphia: Lea Brothers & Co. 1893.

This concise work covers such a large portion of the field of general practical surgery that its main title is somewhat of a misnomer. We are not disposed, however, to criticise it on this account. Rather is the author to be congratulated that he has carried the art of condensation to such a degree of perfection. The section on bandaging is exceptionally well written, and the illustrations are so clear as to be almost as good as the living model. Of course little that is intrinsically new can be looked for in such a work.

Heath's Practical Anatomy. Edited by William Anderson, F.R.C.S., etc. Eighth edition, with 329 Engravings on Wood. 8vo, pp. 744. Philadelphia: P. Blakiston, Son & Co. 1893.

This work was written primarily for English students, and has in the present edition been subjected to an extensive revision in order to bring it to a level with current teaching with the present requirements of the London Examination Boards. It can never supersede the works of Gray and Quain, in this country at least, though it has good features peculiar to itself. For a review of the subject just previous to examination or for consultation by the operating surgeon, it is of especial value, as all irrelevant matter is excluded and one comes at once down to solid meat. Along the lines of regional anatomy it is worthy of special commendation.

Lectures and Essays on Fevers and Diphtheria, 1849 to 1879. By Sir William Jenner, Bart., G.C.B. 8vo, pp. 581. New York: Macmillan & Co. 1893.

These essays have all been published in various journals during the three decades mentioned. Owing to the vast strides which have been made in the study of these diseases, the volume has perhaps more of a historical than a practical value. Nevertheless, we must always remember that our knowledge of the present is largely a sifting of the work of our predecessors, and the high standing of the distinguished author alone would justify the preservation of his writings in the present form. It seems like going back to old times to read a paper on the "Identity or Non-identity of Typhus and Typhoid Fevers," yet this was one of the burning questions of the pathology of forty years ago.

It is good for the student of the present day to read the essays of the preceding generation. We pore so constantly now over the revelations of the test tube and microscope that we are in danger of forgetting that there is a physiological as well as a physical factor in diagnosis. In the matter of accurate description and grouping of symptoms, it is an open question as to how much we have improved upon the systematic methods of our fathers, and he who would pose as an authoritative writer of the present day must frequently go back to such writings as those which Sir William Jenner has collected in the present volume.

The author's breadth of view and clear diction alike make his writings a delight, and we are sure that they will ever hold their present position as an English medical classic.

Electricity in Diseases of Women and Obstetrics. By Franklin H. Martin, M.D. With Illustrations. Chicago: The W. T. Keener Company. 1893.

The author of the second edition of this treatise compliments himself on the hearty reception accorded to his work by the profession. Indeed even a captious critic will find little to merit anything but approval in this elementary work, which is evidently intended more as a guide for students than a reference book for practitioners. As for the so-called electro gynecologists, every one of them has his own peculiar ideas, which he ventilates sooner or later in book form.

Stricture of the Urethra. By G. Frank Lydston, M.D. Chicago: The W. T. Keener Company. 1893.

As compared with similar works on this subject, Dr. Lydston's book has the merit of leaving no doubt in the reader's mind what particular method of treatment is considered advisable by the author. The illustrations are mainly reproductions of well known originals. Lydston's views are those of a modern antiseptic surgeon, and do not differ materially from those now entertained by leading genito-urinary specialists.

Sciatica. A Record of Clinical Observations on the Causes, Nature, and Treatment of Sixty eight Cases. By A. Symons Eccles, M.B. Aberd., Member Royal College of Surgeons, England, etc. Pp. viii.–88. London: Macmillan & Co. 1893.

The generally accepted views touching the origin, symptoms, and treatment of sciatica, are lucidly presented in this brief record of personal observation. The author does not aim to furnish an elaborate monograph on the subject. . . . As a clinical contribution to sciatica the little book will be read with interest.

Society Reports.

PRACTITIONERS' SOCIETY OF NEW YORK.

Stated Meeting, November 3, 1893.

CHARLES L. DANA, M.D., PRESIDENT, IN THE CHAIR.

DR. V. P. GIBNEY presented three patients in illustration of his paper, "A Study in Congenital Deformity."

Discussion took place later.

A Simple Method of Closing Operation Wounds by Sliding Skin Flaps.—DR. GEORGE F. SHRADY described the method. (See page 717.)

DR. ROBERT ABBE thought the operation described by Dr. Shrady filled exactly a want in certain cases. As a rule, however, he had found Thiersch's skin-grafting give satisfaction. The chief need was to avoid tension and irritation in the wound.

DR. J. D. BRYANT said he had usually resorted to Thiersch's skin-grafting, but he recalled one case in which it was necessary to make a Y-shaped incision below the breast and slide the flap upward to close the large operation wound. The method, which was an old one, served the purpose very well in that case.

DR. SHRADY said, in connection with Dr. Abbe's remarks, that the method which he had described prevented the formation of cicatricial tissue, and avoided the necessity for transference of flaps. He had tried Thiersch's method frequently in covering up granulation wounds after amputation of the breast, and so on, but had found the resulting skin rather thin, leaving, in many instances, a very depressed scar with deficient tissue substance. At any rate, he thought it was preferable to have a thick integument over the wound from which the cancerous mass had been removed. The method described was applicable, of course, only to extreme cases, where a large portion of integument had been sacrificed.

The incision to which Dr. Bryant had referred was an excellent one, and he had himself used it occasionally with satisfactory result.

Obstructive Carcinoma of the Duodenal Papilla: Primary Cholecystotomy, Pancreotomy; Secondary Cholecystenterostomy by Murphy's Button.—DR. R. F. WEIR presented specimens and related the case, which is published at length on page 801 of this issue.

In connection with this case Dr. Weir referred to another, of tumor of the pancreas, in a woman twenty-nine years of age, who entered the hospital with the history that once before the tumor had come and disappeared. After etherization Dr. Weir found the belly was much more flaccid than it had been the night before, and on making an exploratory incision the tumor had entirely disappeared. It had been the size of two fists, and without special hardness. It had not returned since, and the patient had remained well. The only inference to be drawn was that there had been pancreatic calculus which became dislodged. It should be said that before she came to the city a country physician had punctured the tumor, withdrawn fluid, and found pancreatic reaction. It might also be remarked that an English observer, named Walker, had said the dark-brown color of the stools was due to the admixture of pancreatic secretion. In this woman's case the stools had all the time been of dark brown color.

DR. W. GILMAN THOMPSON said he had been struck with the great digestive activity of the pancreatic juice in Dr. Weir's first case. The man's nutrition had remained surprisingly good the few days after the operation, considering the loss of so large a quantity of pancreatic secretion.

THE PRESIDENT inquired whether there had been diabetes, and Dr. Weir replied that the urine contained some casts, but no sugar.

DR. PEABODY said the question had arisen in his mind, since having this case transferred from the medical to the surgical ward, where it was operated upon by Dr. Weir, if it would not be better, where obstruction of both glands was present, to examine the duodenum at once through an incision.

DR. WEIR said that question had also come to his mind, but the temptation was, on finding the obstruction and swelling, to cut into it; and had the patient's condition admitted a prolongation of the first operation, he would have resorted to it. He thought that in a similar case, and in a good many cases of calculous obstruction of the common duct, where we either failed to recognize the obstructing cause or were unable because of adhesions to dislodge it, it would be better to open the duodenum and attack the obstacle from that direction. No great damage would follow, unless the drainage-tube or tampon also occluded the duodenum, as the opening in the intestine would soon close.

DR. ABBE doubted whether attacking the papilla which obstructed the opening of the pancreatic duct from within the duodenum would be of much permanent value, not even if the opening were split up a little way, and therefore it would be better, he thought, to resort to the use of Murphy's button at once. Moreover, the handling of the parts which would be necessitated by opening the duodenum would cause considerable shock, as he had had occasion to know from experience with two cases. Having decided on establishing anastomosis, the question would arise, in case of biliary obstruction, what portion of the gut should be selected. Dr. Abbe thought there was no objection to making the connection with the colon instead of the small intestine, as experience had shown that no injury to the health resulted from having the bile empty into the duodenum, and it was easier to make the connection with the larger gut. If the small intestine were used, a kink would form which he thought would be more likely to result in fæces entering the gall bladder than in the other case. Herd had reported a case of anastomosis between the gall-bladder and ileum, which was followed by regurgitation into the gall-bladder and death.

DR. WEIR thought, from theoretical considerations, that there would be more danger of regurgitation of gases and infecting germs from the colon than from the upper intestine.

DR. ANDREW H. SMITH inquired whether the amount of the pancreatic secretion had been estimated.

DR. WEIR said that in his case some of the fluid escaped alongside the tube, so that the daily quantity could not be estimated with any approach to accuracy. It was estimated that from six to eight ounces escaped daily. Murchison placed it at forty ounces.

DR. THOMPSON said the pancreatic fluid, when collected through a tube, became much increased after a day or two, but less active. That present in Dr. Weir's case was much more vigorous than any which he had ever collected in cases of pancreatic cyst.

DR. WILLIAM M. POLK had had a case which confirmed Dr. Thompson's statement that the pancreatic fluid became greater in quantity but less active some time after the fistula had been established. The case to which he referred was one of pancreatic cyst, the size of an adult's cranium, which he tapped about three years ago, and the man's condition became so comfortable and his nutrition so satisfactory, that he refused to have the tumor removed subsequently. He was still living, the fistulous opening still persisted and discharged pancreatic fluid.

Dr. Polk thought the suggestion made by Dr. Peabody, to open at once into the duodenum in cases of biliary obstruction, an important one. It enabled one to explore the pancreatic duct as well as the biliary, and, according to his experience with one case, was a perfectly harmless procedure. The case occurred about three years ago, and in many regards was like the one related by Dr. Weir. He opened the gall-bladder and found about the same condition; met with the same failure on attempting to sound the ducts; then made a free incision into the duodenum, examined carefully the orifice of the common duct, and finding the stone farther from the intestine than he had supposed, so far that he could not remove it from that direction, he sewed up the duodenal wound, broke up

the stone, and succeeded in working it back and out at the gall-bladder, after the manner suggested by Mr. Tait. The gall-bladder was left open, no attempt being made to establish anastomosis with the intestine. He had expected to operate again, but the woman did so well, the jaundice disappeared, the discharge of bile through the opening soon ceased, the opening closed of its own accord, so that nothing further was done.

Dr. W. T. Bull would not regard the suggestion of exploring the duodenum, suggested by Dr. Weir, as quite so trivial a matter as it seemed Dr. Polk did. He thought opening the duodenum was rather a serious complication of any abdominal operation, basing his opinion upon personal experience and upon the physiology of the parts. Once, in trying to extract a gall stone which he thought was in the cystic duct, it proved that there was such close adhesion to the gut that he tore into the duodenum, and although the tear was not more than three quarters of an inch in length and was carefully closed, yet union failed, and there was so copious a discharge from the fistulous opening that the patient came near starving. He thought it was an accepted surgical rule that the duodenum should not be opened if it could be avoided, lest there should be failure of nutrition. He did not suppose that in a case like the one reported by Dr. Weir, the surgeon could hope to extirpate the malignant disease. The case had been of interest to him in the facility with which, it was said, Murphy's button could be used. It did not seem to him that the establishing of an artificial opening between the gall-bladder and intestine was likely to prove of any use, except where there was unquestioned evidence that the calculus which could not be removed was the sole cause of obstruction. If there were carcinoma of the cystic or bile duct, he would prefer to leave the patient to nature rather than assume the risk of making anastomosis. Little benefit could be expected to follow the operation, even should it not endanger life.

Dr. Weir thought Dr. Bull must have misunderstood him. When he referred to opening the duodenum, it was not in recognized carcinomatous trouble, but for exploratory purposes, especially where it was probable that gall-stones existed which could be best attacked from within the intestine. He knew of four or five cases in which the duodenum had been opened, without a single death. It would appear, therefore, that the objection which had been offered was rather theoretical.

Dr. Bull remarked that statistics had shown that, in fully one half the cases of jaundice from obstruction by gall stones, there was complicating malignant disease, and he therefore thought that in doubtful cases surgical operations should be of a conservative character.

Tongue Clamp.—Dr. Weir presented for inspection a novel tongue forceps for use in the accidents of anæsthesia. It was devised by Dr. Berger, of Paris. It is intended to replace the more clumsy and less rapid method of making traction on the tongue by means of a loop of silk passed through its tip by means of a curved needle.

A Study in Congenital Deformity, Clinically Illustrated.—Dr. Virgil P. Gibney then presented an abstract of his paper upon this subject.

Dr. Polk would be much interested to know what might be the etiology in the class of cases presented by Dr. Gibney.

Dr. Gibney said he had no knowledge of the cause. He had been able to question the mother in the case of the second child, and she knew of nothing unusual during the course of her pregnancy to account for the deformity. In cases of club-foot the explanation which had been offered was that the foot remained in the position which it assumed in early fœtal life. In the cases just presented he thought there must be some defect in the nervous system. Replying to an interrogatory by the President, whether there were other similar cases on record, he said he knew of none.

The President thought Dr. Gibney's cases fell under the department of teratology, and not of neurology; that they were not due to any defect of the nervous system. As had been said, the patients were bright mentally, whereas in congenital neurotic or nervous troubles the condition was nearly always progressive; the subjects become worse.

Epithelioma of the Breast.—Dr. William T. Bull presented specimens from a case with history.

Carcinoma of the Vermiform Appendix.—Dr. Weir presented a microscopical slide, showing carcinoma of the vermiform appendix, the organ having been removed during the quiescent stage after the twelfth attack of recurrent appendicitis. No tumor had been felt, nor to the naked eye was there anything pointing to malignant disease. The complication is an unusual one, for, so far, he had not been able to find record of a similar case.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 25, 1893.

H. P. Loomis, M.D., President, in the Chair.

Duodenal Ulcer with Abscess.—Dr. George P. Biggs presented a specimen of duodenal ulcer with abcess, found at autopsy on a female, twenty-seven years of age, who died of acute general peritonitis and intra-peritoneal abscess, the result of septic endometritis. Three weeks before admission to the New York Hospital she had a miscarriage during which she lost considerable blood. This was followed by profuse vaginal discharge, irregular chills, fever, and severe abdominal pain with tenderness and distention, lasting for one week. The discharge then ceased almost entirely, but she developed, in addition to the previous symptoms, sweating, cough, dyspnœa, vomiting, and diarrhœa.

On admission to the hospital examination showed a distended tympanitic abdomen, not very tender, owing to the almost moribund condition of the patient. The cervix was lacerated, but the internal os was closed. The uterus seemed fixed. Subcrepitant râles were heard all over the chest. She lived but four days, during which time her temperature varied from 100 to 101.8° F., and the pulse from 120 to 150.

At autopsy both large and small intestines were found enormously distended, and adherent to each other and the abdominal wall by recent adhesions. In the left inguinal region, and extending to the median line in the hypogastric region, there was found a cavity about the size of an orange, filled with thin, fecal pus. The walls of this space were formed by the left horn of the uterus, left broad ligament, small and large intestines, and peritoneum of anterior abdominal wall, which were united together by fairly firm adhesions. This space communicated by two openings, each about one by one-half centimetre, with the sigmoid flexure, by one similar opening with the small intestine, and also by a large opening with an abscess cavity in the cul de sac of Douglas. The uterus was slightly enlarged and the endometrium at the placental site covered with a diphtheritic membrane. The Fallopian tubes were moderately enlarged, but contained only a very small amount of pus.

In the posterior wall of the duodenum, just beyond the pylorus, was a circular ulcer, 1 ctm. in diameter, with smooth, rounded, firm border, communicating with an irregular, tortuous sinus, 5 ctm. in length and 1 ctm. in diameter, running along the upper border of the pancreas 6 ctm., and terminating in an abscess cavity about 5 ctm. in diameter, the walls of which were formed by the diaphragm above and behind, the upper border of the pancreas below, the posterior wall of the stomach an-

teriorly, and the inner surface of the spleen externally. There was no communication between this abscess and the general peritoneal cavity, though the adhesions of coils of intestine about it were numerous and suggested possible extension of inflammation through the wall. Other lesions of importance were broncho-pneumonia, pulmonary œdema, and chronic diffuse nephritis.

Dr. Biggs said he considered the peritonitis and intraperitoneal abscess to be secondary to septic endometritis and salpingitis. Primary ulceration of the intestine could be excluded, as all the perforations, with the exception of the one in the duodenum, were very clearly from without inward. Entire absence of lesions of the mucous membrane, except at points of perforation, all three of which were into a single cavity, would also be against ulceration beginning in the mucous membrane. The softened semi-necrotic condition of the intestine surrounding the abscess explains the ease with which perforation was produced into the intestine, fecal matter finding entrance into the abscess cavity by the same channels.

The abscess connected with the duodenal ulcer had produced only a slight local peritonitis, and apparently had no etiological relation to the general peritonitis or the fecal abscess. Perforations of the duodenum are usually of the anterior wall, and produce death quickly from shock or from acute general peritonitis. The firm, smooth, rounded border of the ulcer in the specimen presented would indicate comparatively long duration. It is of the so-called "simple" variety, the etiological factors concerned in their production being probably the same as those active in the production of similar gastric ulcers.

Carcinoma of the Stomach and Perforation of the Duodenum.—Dr. Biggs also presented a specimen showing carcinoma of the stomach and duodenum, with perforation of the duodenum at a point not invaded by the new growth. It was found at autopsy on an Italian woman, about fifty years of age, who died a few hours after admission to Chambers Street Hospital. The body was extremely emaciated and the abdomen distended, tense, and tympanitic. A large amount of gas escaped on opening the peritoneal cavity. There was only a slight general peritonitis, and comparatively little fluid in the peritoneal cavity.

The pyloric end of the stomach for a distance of 6 ctm. from the pyloric ring was firm and rigid, the wall being 1½ ctm. in thickness, and evidently indurated throughout with tumor tissue. The internal surface was smooth, distinctly fibrous in consistence, and devoid of ulcerations. There was no obstruction at the pylorus, though it was equally invaded by the tumor tissue. The stomach was not dilated. With the exception of an area in the anterior wall, 2½ ctm. in diameter, located just beyond the pylorus, the first 6 ctm. of the duodenum presented the same appearance as the pylorus, save that the wall was only ¾ ctm. in thickness and the mucous membrane not so completely destroyed. The portion of the anterior wall not involved was almost membranous in thickness, apparently purely fibrous in structure, and in its central portion there was found an oval perforation measuring 5 × 3 mm. No adhesions had been formed to neighboring tissues. Malignancy of the growth was clearly shown by extensive invasion of the tissues behind the pylorus and duodenum, the lesser and the greater omentum, the latter being drawn up into a hard cord, parallel to and attached to the greater curvature of the stomach. Two small whitish points in the left lobe of the liver, just beneath its capsule, had the appearance of metastases.

Microscopical examination of the pylorus showed that the mucous membrane and submucous layer had been completely replaced by a thick layer of fibrous tissue containing a comparatively small number of alveoli filled with epithelial cells of small size. Distinct alveoli were more numerous in the deeper parts. Portions of the fibrous tissue were quite dense, while other portions were rich in ovoid and spindle cells. The entire thickness of the muscular wall was infiltrated with similar tumor tissue, which, however, contained less fibrous tissue. Typical alveoli, filled with epithelial cells, were comparatively few, but sufficiently so for a positive diagnosis of carcinoma. The blood supply of the tumor tissue was very scanty. The gross as well as the microscopical appearances of the inner surface of this tumor suggested an attempt on the part of nature to completely heal over the large ulcerated surface which must have existed in an earlier stage of the growth. The history of the case must have extended over a long period, but unfortunately nothing could be learned regarding it.

The two minute points in the liver had the structure of medullary carcinomata, in which the cells were rather small and the alveoli delicate.

The cause of the extreme thinness and fibrous character of the uninvolved portion of the duodenum appears to have been lack of sufficient blood supply, the circulation through the surrounding tissues being interfered with by the deposit of dense, fibrous carcinomatous tissue. The superior pyloric branch of the hepatic artery mainly supplies this area, and probably was compressed or occluded by the growth.

Lesion of the Bladder Produced by the Distoma Hæmatobium Bilharzii.—Dr. J. S. Thacher presented a portion of a human bladder, exsected a few days previously at St. Luke's Hospital, by Dr. B. F. Curtis, and sent to the laboratory for a diagnosis of the nature of the tumor which it contained. When seen after immersion in alcohol, the mucous surface appeared intensely congested, and presented low, nodular elevations. There was one particularly prominent, measuring one-half inch in diameter, and having a rough surface like that of a papilloma. Stained sections were examined with the microscope, and after the first few examinations a preliminary report was sent, stating that no neoplasm had been found—nothing but inflammatory changes. On examining sections from the above-mentioned nodule, however, unusual appearances were noticed. Papillary outgrowths were seen, covered by a thickened epithelial layer, which also subdivided them by frequent in-dippings. At these spots there were abundant leucocytes, extremely distended capillaries, and many clusters of oval bodies resembling the eggs of the distoma hæmatobium Bilharzii. These ova are from 80 to 120 μ in length, from 30 to 40 μ in width, oval, and with a sharp, short projection at the smaller end. The outline is thin, but distinct; the contents of some finely, of others coarsely, granular; in some filling the shell, in others leaving a space just inside the shell, particularly at the ends. In some the granules are evenly distributed; in others there is a distinct circle of them at the centre of the ovum. They lie sometimes just beneath the epithelium, and again 2 mm. from it.

Adjacent portions of the bladder-wall show inflammatory infiltration, not entirely uniform in distribution, marked congestion, and many tubercle-like nodules. These last are about ½ or ⅔ mm. in diameter, are surrounded by a zone of crowded leucocytes, and made up of variously shaped connective-tissue cells, with scant fibrous material, giant-cells, and a few leucocytes. The giant-cells are rather irregular in shape, with many nuclei variously disposed. There are rarely any necrotic centres to the nodules or the giant-cells. There are usually present in the nodules several irregular lines of striking refractive power, often surrounding open spaces, and supposed to be shrivelled shells of the ova. Occasionally a shell is found of the regular oval shape.

The inflammation extends hardly at all into the muscular coat. The superficial epithelium, where retained, is thickened, but is for the most part lost.

On comparing these appearances with the descriptions given by Bilharz,[1] Griesinger,[2] Zancarol,[3] Harley,[4]

[1] Zeitschrift für Wissenschaftliche Zoologie, 1853, iv., pp. 59, 72, 454.
[2] Archiv für Physiologische Heilkunde, 1854, xiii., p. 561.
[3] Transactions of the Pathological Society of London, 1882, xxxiii., p. 410.
[4] Medico-Chirurgical Transactions, xlvii., p. 55; lii., p. 379; liv., p. 47.

Brock,[1] and others,[2] there can be little doubt that the ova are those of the distoma hæmatobium Bilharzii, or Bilharzia hæmatobia. This diagnosis having been made it was confirmed by learning that the patient had been a British soldier, and was eight years ago stationed in Cairo, and that hæmaturia had been a prominent symptom in his case for the past three years. Notwithstanding the remarkable prevalence of this parasite in various parts of Africa and the neighboring islands, it has been but rarely observed in Europe, and the speaker said he knew of no case reported in this country, though he had been informed that the eggs had been recently found in Chicago.

It is noteworthy that the bladder symptoms in this patient did not appear until five years after he left Egypt. Dr. Norman Moore reports two cases[3] observed in England, in each of which the trouble first manifested itself sixteen years after the patient left the country where he had undoubtedly been infected.

In regard to the tubercle like nodules in this specimen, it is interesting to compare the observations of Miura[4] and Laulanié,[5] who describe similar results from the presence of trematoid and nematoid eggs.

A Large Renal Calculus.—Dr. H. P. Loomis presented a calculus three inches in length by two inches in thickness, which had been removed recently by Dr. L. A. Stimson from a young man, nineteen years of age, whose symptoms of calculus dated back about three years. He gave a history of attacks of pain on exertion, of frequent micturition, and of passing dark and bloody urine. On account of his age and family history it was supposed at one time that his symptoms might possibly be due to tuberculosis, but no bacilli could be found in his urine. Repeated examinations of the urine at different times showed the presence of albumin, pus, blood, and granular and hyaline casts. At the operation the left kidney was found normal in size, and structure, yet this large stone was lying loose in the pelvis of the kidney. It was removed, and the kidney sewed up and replaced. In about ten days the patient was up and around. The outer crystalline portion of the calculus had been examined and found to consist of oxalate of lime.

The chief points of interest in the case are: 1, The size and general appearance of the calculus; 2, the age of the patient; 3, the fact that oxalate of lime calculi are much less frequent than those composed of uric acid; 4, the quick recovery of the patient; and 5, the fact that the kidney itself was not diseased.

Dr. Morris, of London, in a recent paper, reports the results of his examination of all the calculi in the Hunterian Museum—the largest collection of the kind in the world. He states that the calculi occurring in childhood consist almost always of urate of ammonia, those found in early adult life are composed almost uniformly of uric acid, while in later life oxalate of lime calculi are the most common.

The Society then went into executive session.

Prorotomy.—When it is necessary to enlarge the meatus in stricture operations it is best to keep the cut surfaces separated by a small pledget of gauze until complete cicatrization takes place. The patient can change them at each urination, and thus avoid the disagreeable hemorrhage and pain which accompanies the subsequent passage of sounds, as it is almost impossible to thoroughly cocainize this part by injecting the solution.

Sounds or other instruments should not be put into the jar of vaseline, and it is preferable to keep the lubricant in compressible tubes, which insures against subsequent infection.

[1] Journal of Pathology and Bacteriology, October, 1893, ii., p. 52.
[2] Brandt: Gazette Hebd. de Méd., 1891, xxviii., p. 382, and Lyon Médical, 1891, lxvii., p. 449. Norman Moore: St. Bartholomew's Hospital Reports, xxi., p. 89. Roberts: Urinary and Renal Diseases, 4th ed., p. 652.
[3] See Moore, ante.
[4] Virchow's Arch., lxvi., p. 310.
[5] Comptes-Rendus, xciv., p. 49.

NEW YORK COUNTY MEDICAL ASSOCIATION.

Stated Meeting, November 20, 1893.

Samuel B. W. McLeod, M.D., President, in the Chair.

Operation for Varicocele.—Dr. Samuel E. Milliken presented three men on whom he had operated for varicocele, removing the enlarged veins, except a few to nourish the testicle; in one the operation having been performed a week ago, in another one year ago, in the third, three years ago. There had been no tendency to recurrence. He had not found any necessity for excising the lower end of the scrotum, as had been advocated by some. All the symptoms had been relieved. The patient was detained from work only a week or ten days, but it required six to eight weeks for inflammatory trouble to subside after the operation.

Hammock for Applying Plaster-of-Paris Jacket.—Dr. Milliken also exhibited a portable apparatus for applying plaster-of-Paris jacket in the horizontal position in the Pott's disease of childhood. It was a kind of hammock, consisting of canvas stretched over two rollers, the latter supported by legs like those of a folding-table, a handle with ratchet-wheel turning one roller, and thus tightening the canvas to any required degree. The objection to the suspension apparatus had been in his hands the fright which it caused the little patients, and sometimes almost fatal syncope.

Prefers Suspension.—Dr. Reginald H. Sayre thought the apparatus well arranged as a hammock for applying plaster-of Paris jacket, but in his experience it was only in exceptional instances that the horizontal posture should be chosen: as in cases of long confinement to bed with abscess, or paraplegia with weakened heart-action. Wherever possible, it was desirable to apply the jacket while the patient was suspended, so as best to relieve the vertebræ of pressure, especially to take the superincumbent weight off the diseased portion. Regarding the outcry which children made during suspension, he had not often met with it. On the contrary, they were usually well pleased with it because of the relief from pain which it gave. The fact had been pointed out by his father some years ago, in his reply to Mr. Davy, when this gentleman first advocated the hammock. The great point in the treatment of Pott's disease of the spine was not fixation, but extension, and this could be best obtained by applying the jacket while the child was suspended. The jurymast was of further aid in some cases.

Dr. Judson thought that the apparatus shown was a great improvement over Mr. Davy's hammock. He stated that he had had almost no experience with plaster-of-Paris applied in either the recumbent or suspended position. He preferred antero-pressure applied by the use of a brace made of soft steel, which permitted changes and ready adjustments. He would apply pressure from behind forward at the level of the projection, limiting the degree of pressure only by the tolerance of the skin, and from before backward at the pelvis and the shoulders. He advocated the removal of the superincumbent weight from the diseased parts, and thought that was best accomplished by antero-posterior pressure or support, which transfers the injurious weight from the diseased vertebral bodies to the articulating processes, which are sound and well able to bear the extra pressure.

Dr. von Donhoff had been impressed with the danger of applying plaster jackets during suspension in a case of fracture of the spine, his patient passing almost into fatal syncope. He thought all the extension which was desirable could be obtained by antero-posterior pressure, applying the jacket while the patient lay on the hammock, back up. The plaster jacket should serve only as a mould from which to make one of manilla paper, in order that the patient might not be burdened with a great weight. He had never seen a jurymast do any good, unless the disease were high up. Apparatus, as

applied in many cases of Pott's disease, reminded him of a man trying to lift himself out of a mud-hole by pulling on his shirt collar.

Dr. Hoag had occasionally found trouble with adults during suspension, but not with children; at least, not longer than the first minute or two. He thought it was quite generally admitted that there was no cure for Pott's disease, except extension. Therefore, the jacket should be applied during suspension, and paper afterward take the place of plaster.

Dr. Milliken thought the plaster-of Paris jacket was a very cumbersome affair at best, and there were several other kinds of apparatus which were superior to it. All that we could expect in the line of extension was sufficient antero-posterior extension to prevent any further deformity. The plaster-of-Paris jacket was simply an immobilizing apparatus. In hospital practice it took so long to overcome fright and struggling during suspension, that this method had to be given up for the hammock.

The Treatment of Uterine Fibroids.—Dr. Augustus H. Goelet read the paper. According to his view, operative interference in interstitial and subperitoneal fibroids was limited to a narrow field. Nearly all cases were amenable to other treatment, especially electrical. He would try electricity in all cases, including those of small fibroids giving no symptoms, for galvanism often diminished the size of the tumor, and tended to prevent the development of symptoms in the future. Regarding the method of applying the current, some opposed puncture of the tumor, but Dr. Goelet regarded this as a safe and the most effectual method. He preferred vaginal puncture into the tumor, observing, of course, strict antisepsis. It had been objected that this treatment placed the patient in an unfavorable condition for operative interference, should this prove necessary. Dr. Goelet said just the contrary was the truth; that by checking hemorrhage, etc., the current put the patient in better condition to withstand an operation. If hemorrhage were excessive, curettement might precede electrical treatment. If hemorrhage followed electricity, it was due to the fact that the pole had not reached the entire cavity. The copper electrode was best for controlling hemorrhage. Where there was failure by this method, ligation of the uterine arteries might succeed. Removal of the tumor and uterus was called for in some cases. Extirpation of the ovaries had been abandoned by most operators, and in the opinion of the author should be practised only where these organs were themselves diseased. He had no faith in ergot or hydrastis. He did not discuss methods of hysterectomy.

Dr. George T. Harrison congratulated the author on his successful treatment of uterine fibroids without operation. Uterine puncture by one electrode might be safe in the hands of one so skilful as Dr. Goelet, but he thought it would be dangerous practice among the general profession. He was surprised to learn that treatment by removal of the uterine appendages had been abandoned. He knew that Dr. Lusk still had confidence in it.

Dr. Nathan G. Bozeman thought that subperitoneal fibroids, especially if they had a pedicle and were large, ought always to be operated upon. By pressure, they produced renal, vesical, and other symptoms.

Dr. J. Mount Bleyer said his practice had been devoted chiefly to the air-passages, but he might express the opinion that most failures in the treatment of uterine fibroids by electricity were due to studying the subject backward instead of forward. The tumor was not punctured deeply enough, or at a sufficient number of places.

Dr. Boardman Reed, of Atlantic City, said he had seen enough of Dr. Goelet's work to believe in his success with the electrical treatment. He had himself been able to control hemorrhage in a case of bleeding sarcoma by the use of galvanism.

Resolutions were adopted relating to the death of Dr. W. T. White.

Surgical Suggestions.

Superficial Excoriations produced by braces or adhesive plaster are readily healed by the free application of the sub-iodide of bismuth. It is a fine red powder with unusual absorbent and antiseptic powers.

Acute Hydrocele in Children, if tapped with a small trocar and cannula, can almost invariably be cured, if the sac is irritated, after the evacuation, with the blunt end of the cannula.

Potassium Permanganate solution (1 to 1000) is an excellent local antiseptic for the urinary tract. One of the advantages it has over other agents is that so long as pus or other excrementitious matter is present the fluid will be changed in color from the de-oxidation. For acute gonorrhœa it is particularly applicable, and in the preparation of cases for operation.

How to Find the Upper Extremities of the Divided Tendons in Cases of Division of the Flexor Tendons of the Fingers.—Félizet, of Paris, France, says: "I have observed a tolerably large number of cases of division of the flexor tendons of the fingers in which I had recourse with success to a very simple procedure in order to facilitate the search for the upper extremities of the divided tendons. My observations do not apply to wounds of the tendons of the thumb but only to those involving the flexor tendons of the four fingers, whether in the hand or at the wrist. The method of procedure I employ to trace the upper end of the divided tendon is based on the anatomical disposition of the fine fibrous bands which bind the tendons together. For example, to find the upper extremity of the flexor tendon of the middle finger, the other fingers, or at any rate the ring-finger, should be fully extended, and as a result the cut end of the tendon looked for is made to emerge, being dragged upon by the fibrous bands which bind it to the other tendons. The same principle can be applied in suturing a divided tendon. The neighboring fingers, the tendons of which are still entire, being fully extended, the cut extremities of the injured tendon approach each other, and the suture is rendered more secure by the upper end being stitched to one of the adjoining tendons before the divided extremities are united."

Multiple Operations at One Sitting.—For the past two years I have frequently done several operations at one sitting. I have repeatedly repaired the cervix and perineum and curetted the cavity of the uterus before opening the abdomen for the removal of pus tubes, and afterward stitched the fundus of the uterus to the anterior abdominal wall with silkworm-gut, and have thus far seen no cause to regret doing so.—Cushing.

I Hold that to put up all injuries of the elbow at right angles is a dangerous routine practice, as is shown by the number of cases of deformity that have been recorded, and by the very grave prognosis given by all our standard text-books.—Frere.

Wry-neck.—That shortening of the structures which produce wry-neck may occur during fœtal life has been demonstrated. Congenital wry-neck is never to be charged to the fault of the accoucheur or the midwife.—Peterson.

A Mild Degree of albuminuria (or nephritis), especially if recent, is not a contra-indication to the use of chloroform. Even in the presence of advanced and extensive renal changes an anæsthetic may be employed, provided the patient or the family be advised of the additional risk.—Long.

Senile Gangrene.—So long as the gangrene be confined to one or two toes one may wait and abstain from other than general antiseptic treatment, with high position of the limb, allowing the part to be spontaneously thrown off. If the process extends, however, to the dorsum or

sole of the foot, one should amputate above the condyles of the femur. Amputation below the knee is almost always followed by gangrene of the flaps and brings the patient in danger.—Powers.

Be Prepared to go ahead the moment patient is unconscious; don't waste either the anæsthetic or the patient's forces while you are threading needles.

Find the source of hemorrhage in gunshot wounds of the abdomen before you begin sewing up the wounds in the intestines.—Dalton.

Gall-stones call for operation when they cause frequent, repeated, or long-continued trouble. Operation is required for empyema of gall bladder, and for hydrops too, if it causes much annoyance. If cystic duct is closed, the gall-bladder inflamed, or its contents much altered, a temporary biliary fistula should be made.—Czerny.

Gastrostomy.—In the treatment of impermeable cicatricial stenosis of the œsophagus, gastrostomy not only furnishes a new inlet for the introduction of food into the stomach, and thus prevents death from starvation, but it often proves a curative measure in such cases, as the gastric fistula can be utilized for another purpose—successful retrograde dilatation of the stricture—Senn.

Golden Rules.—Never tap a suspected renal tumor through the abdominal parietes, *i.e.*, through the peritoneum. Never think lightly of any ulcer of the tongue or lips of a patient beyond middle life. Never permit a healthy wet-nurse to suckle a syphilitic child, or child of syphilitic parents. Never neglect to warn your patient about his eyes in treating a "first" attack of gonorrhœa. Never forget many gleets are due to slight contractions of the canal and may be cured by a steel bougie.

Creosote Subcutaneously.—In a large number of cases antisepsis in tuberculous phthisis can be secured by slow injection of pure creosote in olive-oil, sterilized by exposure to a temperature of 110° F. Thirty grains of liquid can be introduced beneath the skin in an hour.—Gimbert.

Empyema.—In the greater number of cases the resection of a part of a rib—usually about an inch of the middle third of the sixth or seventh—is incomparably the better plan; it should not occupy more than ten minutes, the peeling off of the periosteum occupying the greater part of that time, it gives ample space for emptying and washing out the cavity, and a new lamina of bone is soon secreted by the uninjured periosteum to repair the loss. But there is one precaution; keep the finger in the opening lest the pus escape too rapidly and the patient die from syncope.—Cadogan-Masterman.

Fractures.—The immediate application of a plaster-of-Paris dressing to a recent fracture is wrong, because the healing of a fracture with deformity can be prevented only by a perfect diagnosis in which the form of the fragments and their position, as well as the possibility of interposition of muscular tissue between them, must be considered in order to institute proper treatment.—Helferich.

Balsam of Peru ranks next to iodoform in the treatment of tubercular affections of bones and joints, and if the latter remedy for any reason cannot be employed, or has failed in effecting the desired result, it should be given a fair trial if operative treatment is not urgently indicated.—Senn.

Œsophagotomy.—The incision should be made large enough to permit of comfortable manipulation without much traction. Blunt dissection is to be avoided, as the tissues are less viable and succumb to septic influences more easily when torn than when cut. The line of the incision is just in front of, and parallel with, the anterior border of the sterno mastoid muscle, beginning a little below the cricoid cartilage and extending to the sternal insertion of the muscle.—Gerster.

Correspondence.

LOGIC VS. SENTIMENT IN THERAPEUTICS.

To the Editor of the Medical Record.

Sir: The Record of November 18, 1893, contains an article on "The Treatment of Enteric Fever" which may prejudice and mislead practitioners.

Being responsible for the increasing use of the Brand bath in typhoid fever, by reason of having made the first pleas for it in the English language (New York State Medical Society, Medical Record, February, 1889) and by subsequent active propaganda for this life-saving measure, I may be pardoned for defending it whenever it is unjustly assailed. There is so much of real value in the article, for instance, the excellent directions for diet and hygiene, and the adverse view on quinine, that the reader may be misled into accepting some of its less reasonable views.

When the author would persuade as, however, that "favorable action is obtained from calomel in doses of seven and a half to ten grains every forty eight hours until four doses have been taken," the cautious practitioner must ask for the rationale of this "favorable action." The author answers that it is difficult to give this, but that the calomel "perhaps removes fecal matter, bacteria, ptomaïnes, and leucomaïnes; that it doubtless relieves to some extent congestion and inflammation of the intestinal mucous membranes; that it very likely, either in its own form or modified chemically, acts as an antiseptic, that it perhaps acts on the liver, and possibly as a nerve sedative." The sceptical practitioner will possibly, probably, or perhaps not be satisfied with this vague statement of "the principles and method of treatment for the dissemination" of which the article was written. He will, after carefully sifting the evidence adduced by the author, come to the conclusion that while it may be safe enough and probably useful to administer one full dose of calomel to clear out the alimentary canal in the beginning of typhoid fever, it would not be prudent to continue its use four times forty-eight hours, viz., well into the second or third week of the disease.

Less harmful, perhaps, but utterly devoid of a rationale, is the author's "specific treatment by one drop of carbolic acid and three drops of tincture iodine in a wineglassful of cold water every two hours," whose action he attempts to explain by the statement that "carbolic acid and iodine are valuable antiseptics, etc."

Whether two ounces of a solution of carbolic acid (about 1 to 1,000), and of tincture of iodine (about 1 to 300) are capable of disinfecting the intestinal canal, any tyro in medicine is able to decide.

It is not surprising that Dr. J. C. Wilson, who with Dr. Bartholow is quoted as the chief advocate of the treatment, has abandoned it in favor of the Brand method.

The author's horror of the bath treatment is really affecting, and is the chief reason for this communication. He says: "At present, bathing, according to the method of Brand, is enjoying an enviable popularity as a method of reducing temperature and preventing complication. This may answer very well in hospitals, where it makes no particular difference whether any individual patient dies or gets well, etc."

The depth and extent of the author's human sympathy for the sick is well illustrated by this statement. "Very likely" few hospital physicians show the author's indifference to the lives and comfort of the hapless creatures who seek relief at their hands.

This sentimentalist goes on to say in a fine (?) vein of irony, "Much testimony to the efficacy has been presented, but rarely has any one taken the pains to describe in print the piteous and ineffectual appeals to be spared the distress of further Brand baths, of patients who, in spite of a continuance of the baths, died. Such cases never occupy a very conspicuous place in scientific reports

on modern antipyretic treatment. The pathetic side of the story never appears in statistics."

Such an "argument" offered in lieu of statistics or clinical data, scarce requires refutation. But as this innuendo may serve to intimidate some practitioners in whose breasts "the milk of human kindness" abounds I propose to analyze its merits.

Before entering into cold facts and figures it may be interesting to reproduce the following humorous rhyme written by a physician who has been subjected to the Brand method.

TUBBING AS I HAVE FOUND IT.

When you have a little fever
Doctor B.'s a firm believer
  In the virtues of the "tub."
But, as often said before
(A score of years or more),
  "Aye, there's the *rub*."

Two stalwart nurses lift you
And very gently shift you
  From bed to water;
Which is so bitter cold
That you feel inclined to scold
  In a way you hadn't oughter.

The tub they nearly fill
So you sink in deep until
  Your head is in;
While you wonder in your heart
At the science and the Art
  Of Medicine (!).

But the casual observer
Sees you trust your life preserver
  Doctor B.,
Who with genial cheery manner,
Keeps a waving Hope's bright banner,
  This is all.

Soon your teeth begin to chatter
And you ribs begin to clatter
  Against the tin,
While you shiver and you quake
And you quiver and you shake
  Amidst the din.

You wriggle à la vermis
As they scrub your epidermis
  Cherry red.
When at last they fish you out
And you are laid without a doubt
  In your bed,

You are so very much at ease
That you forget about the freeze
  In the bath.
You feel like Pilgrim when his pack
Rolled clear off his back
  Adown the path.

ENVOY.

A-rub a-dub tub,
  How they rub
  How they scrub.
List to my roundelay,
  A little less tub
And a good deal more grub
  Is the song
I sing to-day

This patient is evidently satisfied with his experience. He is an attending physician to several hospitals, and is one of the most ardent advocates of the Brand method to-day.

As there is so much unreasoning doubt cast upon German statistics, I shall select for illustration of the "pathetic side of the story" the statements of two American authors. Dr. J. C. Wilson, Professor of Therapeutics in Jefferson Medical College, states[1] that "the average number of baths in each case was forty-two. As a rule the patients did not object to the baths. When they did so the objections ceased after a few baths had been administered." Dr. W. Gilman Thompson[1] describes his personal experience, having been treated by baths for an attack of typhoid: "It is not agreeable, at any time, to be taken out of a warm bed and suddenly immersed in cold water, but the after effect was so soothing and the favorable influence upon all the symptoms was so pronounced that the temporary discomfort was easily endured." "The pathetic side of the story" has evidently not been experienced by these careful observers.

Nevertheless, it is true that in about one fourth of cases in private practice great complaint is made during the last five minutes of the bath. Granting that all these make "piteous appeals," we would have, according to Dr. Wilson's table, $42 \times 5 = 210$ minutes, about three hours of "piteous appeals" for each case. For the sixty four cases treated by Wilson without a death by cold baths in the German Hospital, we must have $64 \times 3 = 192$ hours of "piteous appeals." According to Dr. Wilson's table, the mortality in the other Philadelphia hospitals averaged fifteen per cent. Hence the Brand method saved about ten funerals. How many days of anguish, misery, and sorrow were thus saved to the friends and relatives of these ten who were snatched from the grave with the sacrifice of one hundred and ninety-two hours of "piteous appeals," the pathetically inclined author may be able to calculate. These plain unvarnished facts are cited to soothe the sensitive natures, who, like himself, may be deterred from adopting this life-saving procedure on sentimental grounds.

The truly "pathetic side of my story," however, is to be found in the fact that in this day of broad knowledge and enlightment such an argument as "piteous appeals" should be brought forward in lieu of statistics or rationale. The conservatism of medical men is but too ready to accept prejudice in lieu of argument. Hence this effort to meet it.

While it may be true that the Brand bath will "never be generally adopted in rural districts, I do not concede that it will be so in private practice in cities." Here the intelligence of the community will force even reluctant and sentimental physicians to save the lives of their dear ones. Already the lay journals have taken up this subject and they will continue to probe it. In our large cities the best teachers are converts who a few years ago were sceptics. When men like Delafield, Draper, and Peabody teach it in one school and W. H. Thompson, Loomis, and Gilman Thompson in another, and when it is daily practised with brilliant results in the New York, Roosevelt, Presbyterian, St. Luke, Manhattan, and Austin Flint's and Peabody's service in Bellevue Hospital, the bright young men being educated at these schools and hospitals will not allow sentiment or irrational therapy to guide them. There is need of more positivism in medicine. Between two positive methods like the Brand method and chemical antypyretics, it did not require much time to decide. Intelligent physicians are abandoning the latter, and many who have the courage of their convictions are adopting the former even in private practice. Dr. H. B. Ball has recently had but one death in forty cases at the St. Luke's and New York Hospitals. It is my custom in private practice to place the choice between the bath and expectant method into the hands of the relatives, who usually leave it to my choice. Dr. Ball informs me that he has encountered no serious objection in private practice, although his ultimatum is the bath or a change of attendants. I have treated the wife of a physician who had witnessed similar treatment of another patient in his household; I have thus treated a case in a fashionable summer hotel without trouble. I have treated three members of the same family by baths in three successive years, and I have seen the same tub used by four different families, each obtaining it from the other at my suggestion. "Piteous appeals" did not deter even these

[1] The Treatment of Enteric Fever, Medical News, December 6, 1890.

[1] In a paper read before the Forty-fourth Meeting of the American Medical Association, and published in the Journal of Balneology, August, 1893.

lay people from again permitting the use of the bath, sentiment and pathos must yield to logic and common sense in medicine. SIMON BARUCH, M.D.

51 WEST SEVENTIETH STREET.

THE CALOMEL TREATMENT FOR DIPHTHERIA. DEFENDING AN OLD FRIEND.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: My attention is directed to a paragraph in your issue of December 2, 1893, page 736, saying, "Dr. Hani writes from Elkhart, Ind., to say that Dr. W. H. Daly, of Pittsburg, Pa., does not advocate anything new when he, in his article in the RECORD of October 28, 1893, advises calomel in diphtheria." I beg to say again that I have never claimed anything new for this treatment, and if the doctor has done me the honor to read, even casually, any or all of the several articles I have published on this subject, he will find, not by reading between the lines, but by the lines and the words themselves, that I say in the outset and repeat the statement that the treatment is not new. The gospels of the Christian doctrine are not entirely new to some. Vaccination is not altogether new to the majority. Venesection is not new to others. The laws of gravitation are not new, yet they are all considered pretty good doctrines of their kind, and calomel treatment, though not new, and never claimed by me to be new, is yet none the less worthy of the most attentive consideration and trial; and if Dr. Hani, of Elkhart, Ind., has used the same with success for many years, that simply means that, even if the doctor has been wrong in believing I have claimed the treatment to be new, he is all right on the calomel treatment itself, and I am therefore pleased with the doctor's superadded testimony in its favor. But it seems as though it would be just as well for even Dr. Hani, of Elkhart, Ind., before he sits down to write a philippic, to see that he has a chair behind him.

I believe I am justly considered by my friends to be a good-natured man, and I am yet, notwithstanding that this is the third or fourth time I have felt called upon to publicly point, for my full justification for anything I have said about the calomel treatment, to the articles themselves. I append in foot-notes herewith the references which will fully control my statements on the subject, and I repeat I claim nothing new for it; but, nevertheless, the treatment will not disappoint the practitioner as often as other methods if begun early and kept up late, and in accordance with my instructions to the profession.

The medical profession are now gone mad after new remedies, and unless a remedy is new the author is sure to be told so. It is enough to give the average medical man nervous prostration to study the new remedies which appear in the various medical journals. Too many of them apparently based upon the trumped-up cases in practice by mercantile practitioners of medicine, who appear to be in the employ of wholesale drug-houses which are the owners of proprietary drugs. I honor medical advancement, but I shall not desert an old and tried remedy because it is an old-timer and simple in character, unless the newer one can be demonstrated to be better.

The late Sir Morell Mackenzie said once in my hearing, at the International Medical Congress, at Copenhagen, Denmark, of a new measure with questionable ear-marks on it, advocated by a German confrère: "I shall recommend my friends to try it, but I shall not feel safe in trying it myself, as my present methods are satisfactory and results fairly good." Faithfully,

W. H. DALY, M.D.

135 FIFTH AVENUE, PITTSBURG, PA.,
December 9, 1893.

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Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending December 16, 1893.

	Cases.	Deaths.
Typhus fever	0	0
Typhoid fever	10	8
Scarlet fever	71	6
Cerebro-spinal meningitis	3	2
Measles	267	7
Diphtheria	185	61
Small-pox	5	3
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

Tuberculosis a Contagious Disease.—The following was presented at the last meeting of the Health Board:

"HEALTH DEPARTMENT, NO. 301 MOTT STREET,
"NEW YORK, December 13, 1893.

"HON. CHARLES G. WILSON, *President.*

"SIR: The report of Dr. Hermann M. Biggs, the bacteriologist of this department, relative to tuberculosis is, in the opinion of the Chairman of the Sanitary Committee, timely and well advised. The subject is well summed up in the three facts relative to the disease set forth on page 5, to wit:

"First, tuberculosis is a contagious disease and is distinctly preventable. Second, it is acquired by direct transmission of the tubercle bacilli from the sick to the well, usually by means of the dried and pulverized sputum floating as dust in the air. Third, it can be largely prevented by simple and easily applied measures of cleanliness and disinfection.

"The following recommendations, based upon the foregoing premises, are approved and offered to the Board for its consideration:

"First, that a circular be prepared for distribution among the people, setting forth the danger of contagion from tuberculosis, and the fact that the discharges from the lungs of tubercular patients are not only dangerous to others but also to the patient afflicted, and also setting forth the danger of expectorating in places where the sputum is liable to be dried, and carried by the air in the form of dust.

"Second, that physicians and other persons to whom the knowledge of the existence of a case of tuberculosis may come, be requested to report to this Department all such cases within seven days of the time when such sick person comes under observation.

"Third, the medical sanitary inspectors should, as a part of their duty, investigate doubtful cases of the disease reported, and take specimens of the sputa for diagnostic purposes, the same as is done in cases of diphtheria. These specimens should be transmitted to the Division of Bacteriology for examination, and the Division of Bacteriology should be properly equipped for such examination, for the purpose of obtaining definite knowledge upon which the proper sanitary surveillance of those suffering from tuberculosis can be based. Upon the verification of the diagnosis, the inspector should visit the physician reporting each case and request him to fully instruct his patient, and the persons with whom he is in contact, concerning the nature of the disease and the danger of its transmission. If the case be reported by laymen, or if the physician prefers that the inspector should assume the aforesaid duty, then the inspector should personally perform this service.

"Fourth, the following preamble and resolution should be adopted and sent to each of the general hospitals, and to the Commissioners of Charities and Correction:

"*Whereas*, tuberculosis is a contagious disease and is distinctly preventable, and

"*Whereas*, it is acquired by the direct transmission of the tubercle bacilli from the sick to the well, usually by means of the dried and pulverized sputum floating as dust in the air, and

Whereas, it can be largely prevented by simple and easily applied measures of cleanliness and disinfection, and, to an extent, by segregation of those suffering from it, be it therefore

"*Resolved*, That this Board urge upon hospital authorities of the city of New York, the importance of separation, so far as possible, in the hospitals of this city of persons suffering from pulmonary tuberculosis from those affected with other diseases, and urge that proper wards be set apart for the exclusive treatment of this disease, and be it further

"*Resolved*, That the Commissioners of Charities and Correction be recommended to take such steps as will enable them to have and control a hospital to be known as 'The Consumptive Hospital,' to be used for the exclusive treatment of this disease, and that, as far as practicable, all inmates of the institutions under their care suffering from tuberculosis be transferred to this hospital.

"Fifth, it is recommended that the disinfecting corps disinfect places where evidence of infection from tuberculosis exists, whenever in the opinion of the Chief Inspector of Contagious Diseases it shall be necessary.

"Sixth, it is recommended that suitable receptacles for sputa (cuspidors) be provided and properly cared for in all places where persons are brought together or caused to congregate for any purpose, especially in factory buildings.

"(Signed) Respectfully submitted,
"CYRUS EDSON, M.D.,
"*Chairman of the Sanitary Committee.*"

Health Department—Circular to Physicians.—During the last few months a series of investigations have been made in the bacteriological laboratory of the Health Department to determine how long the Loeffler bacilli remain in the throat after the disappearance of all false membrane in cases of diphtheria. The results obtained are extremely significant, and have caused the Department to establish a new rule regarding the discharge from observation of patients who have suffered from diphtheria, and regarding the time of disinfection of the premises.

During the past three months 405 cases of true diphtheria have been subjected to repeated bacteriological examinations performed at short intervals during the course of the disease and during convalescence. In all of these cases cultures were made at the beginning of the disease, again after the lapse of three or four days, and finally at short periods after the complete disappearance of the false membrane, until the throat was found to be free from the diphtheria bacillus. In 245 of these 405 cases the diphtheria bacilli disappeared within three days after the complete separation of the false membrane; in 160 cases the diphtheria bacilli persisted for a longer time, namely: in 103 cases for seven days, in 34 cases for twelve days, in 16 cases for fifteen days, in 4 for three weeks, and in 3 for five weeks after the time when the exudation had completely disappeared from the upper air passages. In many of these cases the patients were apparently well many days before the infectious agent had disappeared from the throat. These results show that in a considerable proportion of cases persons who have had diphtheria continue to carry the germs of the disease in their throats for many days after all signs of the disease have disappeared. No doubt the disease is largely disseminated by these persons who are apparently well, and who mingle with others while their throat secretions still contain the diphtheria bacilli.

These experiments have led the Health Department to adopt the rule, that no person who has suffered from diphtheria shall be considered free from contagion until it has been shown by bacteriological examination, made after the disappearance of the membrane from the throat, that the throat secretions no longer contain the diphtheria bacilli, and that until such examinations have shown such absence the case must remain isolated and under observation. Disinfection of the premises, therefore, will not be performed by the Department until examination has shown the absence of the organisms.

Secondary cultures, as in the case of primary cultures, may be made by the attending physician, if he so desires; otherwise they will be made by the inspector of the district in which the case occurs. This applies only to cases occurring in boarding houses, hotels, and tenement houses—not to those occurring in private houses.

In this connection an interesting observation has been made showing that in diphtheria cases which have been subjected to frequent irrigation with antiseptic solutions from the beginning of the disease the bacilli, as a rule, disappear far more rapidly than in those in which such irrigations have not been employed. The Department would feel grateful for any data which physicians of the city may furnish as to the treatment employed in each case in order that more reliable conclusions can be reached as to the best mode of treatment.

Shamelessness Extraordinary.—From a widely-scattered circular, appealing to the morbid fears of the sexual hypochondriac in the customary language, we quote: "In all cases where the organ is small, or where it has become relaxed through self-abuse, disease, or age, the conjestor, developing liniment, and nerve seeds should all be used at the same time.

The price of the conjestor is	$10.00
Three bottles of developing liniment....	5.00
Six packages of nerve seeds.....	5.00
One suspensory bandage	2.00
	$22.00

"When the whole course of treatment is ordered at one time, we will prepare and send by express to any address on receipt of $20.00." It is fully explained in other parts of the circular that the "conjestor" acts like a cupping-glass, the air being exhausted, etc. The drug-stores are acting as local agents in this execrable traffic. Is there no city law or State law in Chicago to stop it?—*Medical News.*

The Breeding-place of Neurologists.—In his opening address as chairman of the Neurological Section of the Pan-American Medical Congress, Dr. Hughes gives an extended review of the contributions of American workers in this branch of medicine. He shows that Dr. Benjamin Rush taught that inebriety was a disease. The idea lay long dormant, but finally it was recognized and developed until the causation, pathology, and treatment of this disease is tolerably well understood. Having given in brief America's record, he says: "America breeds and develops neurologists as the water breeds and develops fishes. The pabulum neurology feeds upon is in the American people—their hustling, rushing habits, their business, professional, social, and political environment, and the numerous newspapers they read before breakfast, and every night before they forget to say their prayers; this moral, political, social, and business atmosphere of ambition and bustle tends to develop the strongly endowed, neurologically and psychologically, as it tends in the weakly endowed to the development of neuropathic conditions. It develops neurologists and psychologists to care for the neuropaths. It builds and breaks the nervous system. It cannot be said that we are a neuropathic people, though we are tending that way; but neurology is advancing with equal pace with neuropathic break down, and will, it is hoped, ultimately enlighten and save the people from their neuropathic sins." Thus the food upon which neurologists thrive is the physiological sins of the American people. As these are great, so do neurologists grow fat and rich in this world's possessions.—*American Lancet.*

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STATE AND MUNICIPAL CONTROL OF INFECTIOUS AND CONTAGIOUS DISEASES.[1]

BY JOHN WINTERS BRANNAN, M.D.,

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THE subject of public health has engaged the attention of law givers from the earliest ages, but it is only during the present half-century that much has been accomplished in the way of effective sanitary legislation. England, profiting by her experience with cholera, was the first nation to recognize the full importance and necessity of public hygiene. The Public Health Act, enacted by Parliament in 1848, was the beginning of a series of measures which have given that country the most perfect sanitary code in the world. It is not to our purpose to review this legislation, but it may be well to note briefly some of the results obtained by it. The average annual death-rate throughout England and Wales, during the twenty years previous to 1870, did not vary greatly from 22.5 per thousand of the population, and it was estimated by Mr. John Simon that one hundred and twenty-five thousand persons died each year of diseases due to defective sanitary conditions. Although Simon's figures were thought by some to be exaggerated, they nevertheless had great weight in persuading Parliament to adopt the reforms recommended by him. During the succeeding twenty years improvements on a large scale were carried out in all the large cities and towns throughout England and Wales, with the result that in 1889 the annual mortality had fallen to only 17 9 per thousand, thus more than justifying the calculations of Simon. The life of a human being has been estimated by Farr to represent a capital of $800. At this valuation the one hundred and twenty-five thousand lives now saved in England are equal to a money saving of one hundred millions of dollars annually.

The work accomplished in England has attracted the attention of other European countries, and they have all attempted to imitate her methods, but not all with the same degree of success. Sanitary laws must of necessity restrain the liberty of the individual, and can, therefore, never be thoroughly successful unless their provisions appeal to the intelligence and honest conviction of the public. The fact that in England these laws are made by the people themselves through their representatives in Parliament, aids much in securing their thorough enforcement. In our own country the conditions are equally favorable, except that here the power to enact such laws rests with the State and not the national legislature. The Supreme Court of the United States has decided [2] that all those powers which relate to merely municipal legislation, or what may be called internal police, are not surrendered to the general government; that consequently, in relation to these, the authority of each State is supreme and exclusive within its boundaries. Among these powers are inspection laws, quarantine laws, and health laws of every description. The State having thus all the power necessary for the protection of the health of the people, may delegate to corporations organized for local self-government the power of legislating with regard to such matters. The power remains, however, at all times subject to the control of the State, and may be resumed or cut down by the legislature at its discretion.

Municipal corporations are then to be considered simply as agents of the State, organized for local government. As the preservation of the lives and health of the people is one of the chief purposes of local government, reasonable regulations in relation thereto have always been sustained as being within the authority of these corporations. Municipal regulations must naturally interfere in some degree with the free exercise of private rights, but should not do so unnecessarily. As this so called police power is conferred for the purposes of self-defence, it must not be carried beyond what is necessary for protection.

In the State of New York and in many other States of the Union, the legislature makes a distinction between the larger and the smaller municipal corporations or cities, generally in the direction of giving larger powers to the former The powers to make sanitary regulations for New York City are contained in the Consolidation Act, and are conferred directly upon the Health Department. In considering the means employed by the Board of Health to control infectious and contagious diseases, I shall limit myself to those measures which bear most directly upon the subject. Pure food, pure water, pure air, and generally good sanitary conditions are of course indispensable and must be striven for at all times, but something more than these is called for to check the spread of contagious disease. The measures I refer to are compulsory notification, isolation, and disinfection. Under the head of isolation I include the power to remove the patient to a special hospital, if he cannot be efficiently isolated at home.

All of these measures are important, though perhaps not to the same degree. A law requiring the notification of infectious diseases is now in force in all the principal cities of this country, as well as in all the capitals of Europe. French physicians have always strenuously opposed the passage of such a law, maintaining that it involves the violation of professional secrecy. The Chambers, nevertheless, enacted the law about one year ago, and its provisions went into effect throughout France on the first of the present month. The opinion of the Paris Academy of Medicine was simply asked as to what diseases should be classed as infectious and contagious. There is a wide divergence of opinion and practice on this important point. In Chicago, typhoid fever is not reported, in Philadelphia and London measles is not deemed worthy of notice, in other places whooping cough is excepted, in others erysipelas.

This lack of agreement is probably due to the fact that there is still some confusion as to the exact significance of the words infectious and contagious. The old meanings no longer fit our present more definite conceptions of these terms, based upon the teachings of bacteriology, and yet it is difficult to use the old words without calling to mind the ideas formerly connected with them.

Dr. Prudden [1] defines an infectious disease as one which is caused by the invasion and reproduction within the body of pathogenic micro-organisms. According to the same authority, an infectious disease is contagious when the micro-organism which causes it can, under the ordinary conditions of life and by whatever means, be conveyed from the sick to the well in a condition capable of lighting up the disease anew. Dr. Prudden, however, insists upon the importance of recognizing the great difference

[1] Remarks before the Section of Pediatrics of the New York Academy of Medicine, December 14, 1893, during a discussion on scarlet fever.

[2] Parker & Worthington: Public Health and Safety, page 3.

[1] New York Medical Journal, 1892, vol. lv, p. 421.

in the degree of contagiousness which different diseases may possess.

These definitions of "infectious" and "contagious" are generally accepted by bacteriologists at the present day. As thus defined, each term has its own special field of application. An infectious disease is the morbid condition produced within the body by the entrance of pathogenic micro-organisms. There is no limitation as to the source of the infection, nor is the possible communicability of the disease suggested. The term infectious does not look beyond the individual already infected. Contagious, on the other hand, has gained what infectious has lost. It now includes all modes of conveyance of infectious disease. It is no longer a question of the manner of transmission, whether by direct contact or through the air or by other carriers of infection. If an infectious disease is communicable to others by any means whatever, it is also contagious. Contagion presupposes infection, therefore all contagious diseases are infectious, but not all infectious diseases are contagious.

It is surely a great gain to have thus simplified the meanings of terms, but it is unfortunate that in simplifying them we have also changed them. To us, as medical men, it perhaps does not matter that we have taken such diseases as typhoid fever, cholera, and tuberculosis, formerly called simply infectious diseases, and placed them side by side with small-pox and scarlet fever, diseases known to all as directly contagious by simple diffusion through the air. We know that there are degrees of contagiousness, using the word in its new and broader sense. But it is otherwise with our patients, who have not followed the steps by which we have arrived at our present understanding of infection and contagion.

I have discussed this question of nomenclature somewhat at length because it is especially important at this juncture that the public should understand what is meant by the term "contagious disease." Dr. Biggs, the pathologist of the New York Board of Health, has recently made an official report to that body, in which he advises that physicians practising in this city should be requested to notify the Board of all cases of pulmonary tuberculosis coming under their observation. I believe that the majority of physicians in New York will agree entirely with the spirit of Dr. Biggs's recommendation and will aid the Board of Health in carrying it out. But I also believe that there is a considerable proportion of physicians in the city who will be less willing to report the names of their private patients who are suffering with tuberculosis, if this affection is to be termed a contagious disease. They know the alarm that enters a household when a disease is declared contagious, associated as it has been in the past with enforced isolation of the patient. I would therefore suggest the use of the word *communicable* in place of *contagious*, and not only for tuberculosis, but for all diseases of this class. Communicable expresses exactly what we mean and no more, whereas contagious produces a false impression, due to the former meaning of the word.

If the term communicable is adopted to include all those infectious diseases which are capable of transmission in any mode whatever, then contagious may still be retained, but restricted to its old use. It would then include, as a sub-class of communicable diseases, such diseases as the exanthemata, whooping-cough, and mumps, which are conveyed by simple contact, direct or indirect.

Lest some may think that this change of nomenclature is impracticable, I will call attention to the fact that the State Board of Health of Michigan has for years used the term "dangerous communicable diseases" for all diseases requiring official regulation in the interests of the public health. I do not know what reasoning or experience led that Board to the selection of this term, but it has served it well in the action taken by it some three months ago, when it resolved that hereafter, tuberculosis should be included in the official list of "Diseases dangerous to the public health," requiring notice by householders and physicians to the local health officer as soon as such a disease is recognized. In this resolution the question of isolation of the patient is not mentioned. Its purpose is to secure to the health authorities knowledge of the location of each case of the disease, with the view of placing in the hands of the patient and his friends information which will enable them to prevent its further spread. Leaflets giving this information and entitled, "Restriction and Prevention of Tuberculosis," are distributed throughout the State by the Health Board. In these leaflets the disease is called communicable, and the mode of communication is clearly stated.

Although Michigan is the only State which has taken official action in the way of restricting tuberculosis, other parts of the country are also awake to its necessity. Two circulars, similar to the one I have mentioned, are published and distributed gratuitously, one by the Health Department of Providence, the other by the Pennsylvania Society for the Prevention of Tuberculosis. The language of both circulars is excellent, except that in both the disease is termed "contagious."

As we are about to follow the decided step taken by Michigan, let us in like manner call tuberculosis by its right name, a communicable disease.

I shall say but little regarding the other measures of restricting infectious disease, as they are to be fully discussed this evening by others. In the case of a purely contagious disease, such as scarlet fever, notification of the disease would of course be of little value unless it were followed by prompt isolation of the patient and disinfection of the premises at the termination of the illness. Under the conditions which prevail in New York it is seldom possible to secure efficient isolation of the patient at home. It is, therefore, very unfortunate that there exists in this city such a prejudice against removal of the patient to a contagious disease hospital. In London there are sometimes as many as three or four thousand cases of scarlet fever in the Metropolitan Asylums Board hospitals at one time. In that city even well-to do people seek admittance to the fever hospitals, and many are turned away for lack of room. In New York, during the whole of the year 1890, only 324 patients were taken to the Willard Parker Hospital, a number too small to have much effect in restricting the spread of scarlet fever in the city. In Boston, also, it has been found that the disease prevails epidemically, or to only a slight extent, without much regard to the restrictive measures of the health authorities. But it is the intention, in both New York and Boston, to forcibly remove many more cases to the isolating hospitals as soon as the new buildings, now under construction, are completed.

In closing, I will again instance the experience of Michigan in order to show what can be accomplished under favorable conditions by efficient isolation combined with disinfection. During the year 1889 there were 417 outbreaks of scarlet fever in that State. In 72 of these outbreaks, isolation and disinfection were both neglected, and the number of cases per outbreak was 16.78. In 52 outbreaks, both isolation and disinfection were strictly enforced, with the result of limiting the number of cases to but 2.69 per outbreak. In many outbreaks one restrictive measure was enforced and the other neglected. In all such instances the spread of the disease was checked somewhat, but never to the same extent as when both isolation and disinfection were enforced.

Salicylic Acid for Coryza —Dr. A. J. Wegg, of Spanish Town, Jamaica, deems salicylic acid, when employed as an errhine, a reliable agent for the arrest of coryza. A few drachms of the dry acid are placed in an ordinary paper pill-box, in the cover of which small pinholes are made. Before using, the contents of the box is shaken, and then the nostrils applied to the openings. This may be repeated time and again until sneezing is induced, as demanded, or as indicated by the amount of hyperæmia of the nasal mucous membrane.—*Medical Age*.

MULTIPLE CONGENITAL DEFORMITIES WITH ARREST OF DEVELOPMENT, MORE ESPECIALLY A DEFORMITY OF THE HAND RESEMBLING "WALRUS FIN."[1]

By V. P. GIBNEY, M.D.,

NEW YORK.

Some fifteen years ago an unusual type of deformity came under my observation, and I was unable to classify it at that time. The advice I got on the subject was unsatisfactory, and it was many years again before I saw a similar case. In fact, it was ten years later before a second case came under my observation. About two years later I saw a third case in Philadelphia, in the practice of Dr. De Forest Willard, and in January, 1891, a fourth case came under my care. So that, with three, at least, for a study, I have felt the subject of sufficient interest to present this evening for a discussion.

Just what to call the cases, other than general arrest of physical development, I do not know. The etiology is, of course, as in all these cases of congenital deformities, obscure. I am at a loss to give any explanation for these rare occurrences. In the true sense of the term, they may certainly be regarded as Lusus Naturæ. Ordinarily we understand a Lusus Naturæ as a deficiency or a defect of some kind that cannot be remedied by any treatment. Still, I do not know whether this will be accepted as a legitimate definition or not. I hesitate, however, to speak of these cases in this light, because they are amenable to a great amount of relief, and the simple narration of the cases will satisfy my hearers that a vast amount of good can be accomplished by persistent and systematic mechanical and operative treatment, intelligently carried out. Fortunately, I am able to present the cases themselves this evening, and they are here for your inspection.

Case I. *Arrest of Development of Hands and Patellæ, Bi-lateral and Symmetrical, Complicated with Genu-valgum.*—A. N——, a boy six weeks of age, was brought to me in the Out-patient Department of the Hospital on July 28, 1879. I failed at that time to make as full a record of the case as I should do at present, but some notes were jotted down, and in this way I am enabled to recall many of the features. I noted, for instance, that there were contractures of the flexors of the ring and little fingers on both hands, that there was a deformity of the feet simulating club-foot, which could be easily overcome by manipulation, that the knees were not well developed. The mother was instructed to manipulate the fingers and foot.

It was noted on December 1st, five months later, that the contracture of the hands had in a measure been overcome, but that the tendo-Achillis and the flexor longus pollicis remained shortened.

On December 24th we made a more thorough examination, and could find no trace of patella on either limb. The late Dr. Frank H. Hamilton, who was at that time a member of our consulting staff, saw the patient for us and presented it at his clinic. He wrote me as follows:

"Dear Doctor: I do not find any patellæ. The case is very interesting, etc.

"Very sincerely,
"F. H. Hamilton."

I remember examining the case frequently in search for the patellæ, and, after a while, I was pretty sure that I discovered rudimentary bodies on the outer side of the thighs, lower third, and my impression is that I was enabled to convince Dr. Hamilton that they were present, although quite rudimentary.

The case was under pretty close observation and treatment for the next eighteen months, and at the end of this period we had no difficulty in recognizing the patellæ. In order to overcome the knock knee, apparatus was worn, which apparatus, with a foot-piece, enabled us to extend the Achilles tendons and get the feet into very good shape. The hand muscles and the leg muscles were still small at that time, and nothing was done specially to increase their development. It was noted also that the thigh muscles, those anteriorly, were small.

It was noted on February 18, 1881, that he was walking without support, but was still compelled to use the apparatus for the correction of his deformity. As late as September 30, 1881, the report was that he stood quite straight—the limbs were much stronger.

I saw nothing further of the case until October 14, 1893, when his mother was advised to bring him to see me again by my friend, Dr. Edward S. Bunker, of Brooklyn. I made the following note: "Goes to school. He walks very well indeed, except that he wears his shoes off very rapidly at the ball, especially on the right side. He shows very little deformity as he walks—walks long distances. As he lies on the table, his knees are in slight genu-valgum, can't be fully extended, come down to about 165°. Can flex to about 120°. The patellæ are pretty good sized now and are in very nearly normal position, say about an inch too high and a half inch out of

Fig. 1.—Rear View of Case II. before Treatment.

Fig. 2.—Front View of Case II. before Treatment.

the way to the left. The comparative measurements of the knees: Right side, 8½, 10, 9½; left, 8¾, 10, 9¾; right calf, 9¼; left calf, 9¼.

Case II. *Congenital Talipes-equino varus, Extreme, with Arrested Development of Hands and Fingers, of Knees, Patellæ Rudimentary and Displaced, Marked Genu-valgum.*—K. K——, a girl about eight years of age, whose family history was negative, was admitted to the hospital June 18, 1889. She was well nourished, but walked with characteristic club foot gait, the plantar surface not touching the floor. Calves were undeveloped. The movements of the toes were limited. The hands exhibited a peculiar lack of development, in that the thenar and hypothenar eminences were practically nil, fingers were elongated and unshapely. The knees were in marked genu valgum. The patellæ were small and were dislocated upward and outward, toward the outer and anterior aspect of the thighs, lower fourth. (See Figs. 1 and 2, showing the front and rear view.)

On manipulating the parts one found that the deformity could be corrected a good deal without the employment of a great amount of force, and it was decided to treat the knees and feet by repeated applications of plaster-of-Paris, correcting as much as possible at every sitting. The Achilles tendons were found, at a later examination,

[1] Presented at the Practitioners' Society as A Study in Congenital Deformities, November 3, 1893.

to be quite short, and the first application of plaster was made under ether on June 21st, when the Achilles tendons and the tendon of the tibialis anticus, as well as the plantar fascia, were divided subcutaneously, that we might the easier improve the position of the feet.

On July 20th, August 12th, and August 19th, the plaster-of Paris was removed, the deformity still further corrected by manual force, including the knock-knee, and plaster reapplied, extending from the upper third of thighs to the toes.

On September 20th, under ether again, the feet were brought into a still better position by manual force. It was then found that the deformity of the right foot was very nearly corrected.

October 29th, under ether, tendo-Achillis of left foot was divided again, and the foot was brought up in dorso-flexion to an angle of about one hundred degrees. It was not possible to force it into better position, as the motion from this point took place only at the mid-tarsal joint, and not at the tibio-tarsal joints.

From January 7, 1890, to October 28th, ether was administered frequently, every three or four weeks, and the deformity partially corrected at each sitting. It was found, however, that the relief was not permanent, that the deformity would relapse on the slightest provocation.

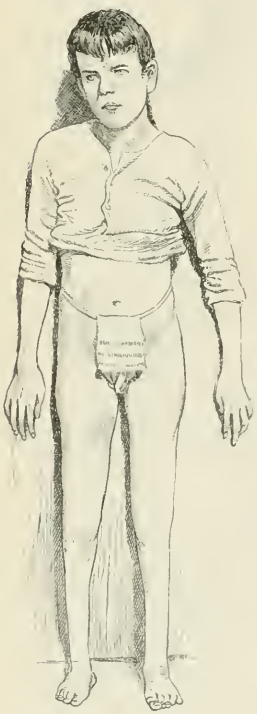

FIG. 3.—Front View of Case II. after Treatment.

FIG. 4.—Rear View of Case II. after Treatment.

The head of the astragalus on each foot could be felt distinctly, and seemed to be displaced forward, and it was thought that this bone interfered with the correction of the equinus.

Under ether, October 28th, the astragalus of right foot was enucleated and part of the cuboid, before the foot could be brought into excellent position.

The parts healed promptly, by December 2d, and, on December 16, 1890, the astragalus was removed from the left foot.

It was noted on the 23d, that the wound had become septic from some reason, and a wound remained, which, by the latter part of the month, had very nearly healed.

On January 19, 1891, she was examined for record, and it was found that the hip movements were normal, that both knees could be flexed to an angle of one hundred and forty-five degrees, and extended to an angle of one hundred and eighty degrees. It had been difficult, I omitted to mention, all along to flex the knee, and whenever the plaster was applied, not only was an effort made to correct the knock knee, but to stretch the quadriceps femoris tendon by flexing the joint a little. The right foot at this time could be flexed to eighty degrees, the left to one hundred degrees, and there was a range of motion on the left side of about ten degrees.

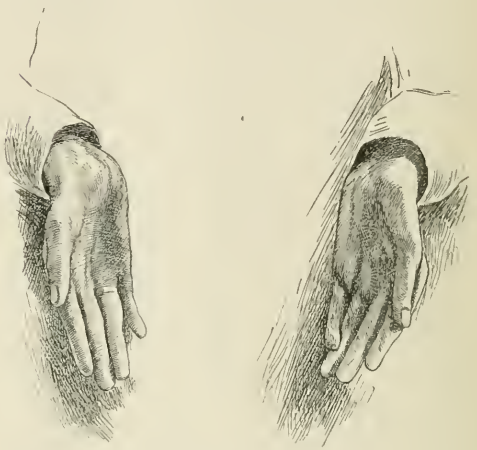

FIG. 5.—Appearance of Hands in Case II

On September 30, 1891, apparatus was employed in the shape of knock-knee springs, as her feet were giving us no longer any special trouble.

In November of that year our attention was called to a peculiar symmetrical contraction of the second toe, as shown in the photograph. This deformity of the toe made it exceedingly difficult to have her wear apparatus, and especially shoes, so that it was necessary to correct this extreme flexion of the toe. Ether was required to accomplish this.

By May 17, 1892, the feet were not in the best position, and a little force was employed to prevent this tendency to deformity.

On September 16th we had to administer ether again, and put both feet up in the extreme dorso-flexion. This had to be repeated on November 11th.

On January 12, 1893, it was noted that she stood squarely on the floor, and that there was very little, if any, tendency to inversion. In the left foot there was slight valgus That is to say, the foot was practically a flat foot, but the rotation of the whole limb was inward and gave a rather awkward appearance as she walked. There was no voluntary power of flexion nor extension of the ankles, but she had ability to flex and extend the toes. The knees could be flexed to about one third the normal range. Calf muscles were poorly developed. She was still wearing apparatus to maintain the good position.

At present the appliances are still worn, because we fear that there will be a relapse again if she is not kept under close observation. Looking at the photographs when she came into the hospital, one can easily note a decided improvement. (See Fig. 3, which shows her condition to-day.) When we consider how good a result is noted in Case I., it is fair to presume that this patient will be equally fortunate, and a good prognosis can, therefore, be given. She is able to use the hands for

ordinary purposes, and can even do needle-work. (See Fig. 5, from photograph.)

I do not recall any case of equino-varus that has proved so obstinate as has this one. Time and again I have felt that the cure was complete, and then, after several months, while still in the hospital, it would be found that the deformity had slightly recurred.

Case III. *Congenital Equino varus, with Multiple Deformity Affecting the Shoulders, Elbows, Hands, Hips, and Knees.*—On January 9, 1891, a physician of a neighboring town brought his baby, E. O'G——, a girl, aged three months, to see me, and, after making an examination, I felt utterly helpless in the matter of relief. I advised him to wait and let me study the case.

However, I noted at the time that the baby was hearty and well nourished, that the arms and forearms were held in inward rotation, so that the palms looked backward and outward; the arms were kept rather close to the side; shoulder-joints were pretty free in certain directions, though it was difficult to rotate the arms outward; there was no other deformity about the shoulder joints; the pectoral muscles were evidently shortened; the elbows were held in very slight flexion, in fact, they were nearly straight; it was difficult to effect flexion to ninety degrees without great pain; the hands were small, the palmar fascia shortened a little, the thumb drawn into the palm; the muscles of both upper extremities were small, especially in the hands, which were rudimentary. The lower limbs presented the following deformities: There was slight subluxation forward at the hips, the joints here not being as free as they should be; the thighs were rotated outward, so that the top of the feet looked directly outward. The baby could voluntarily flex the knees to ninety degrees, passively they could be flexed to an acute angle; patellæ were small, but in normal position; the joints themselves seemed normal so far as one could make out by manipulation. The feet were in marked equino-varus. There was a lack of symmetry of the head in front, the right side being slightly flatter than the left. The child was born at full term, was bottle fed, but seemed to be thriving. At birth the arms were in pretty much the same position as at the time of my first examination, but the feet were crossed, the limbs one over the other. Since birth the child had improved a little under manipulation of the different joints.

On March 22, 1891, under ether, I succeeded in pulling the head of the femur down into the acetabulum on right side. That is, I was able to cause disappearance of the hard tumor over the ramus of the pubis and to flex the thigh, to adduct, and to rotate. It was very difficult to rotate the limb inward, however, but this was accomplished by considerable force, so that the patella came in front. A little force was employed on the left side, and and the limbs brought down equal in length. The Achilles tendons were divided, and, by a trace of moulding and manipulation, the feet were brought into position of calcaneo valgus, just the reverse of what they were. Care was taken to hold the feet and limbs into good position while plaster-of Paris was applied from the toes up to the axilla, special pains being taken to pad the parts well and cut out sufficiently about the genitals to avoid excoriations. The patient took very little ether, but was completely anæsthetized so far as the reflexes went. It cried and moaned during the whole operation.

On March 28th, six days later, the baby was brought to my office, and it was reported that for the first few days she was very restless and seemed to be suffering a great deal, but for the last two or three days was comparatively comfortable. The plaster was soiled and broken in one or two places. The deformity had not recurred, and, on removing the plaster there was found no excoriation whatever. The dressing was renewed.

By the latter part of April the child was placed in a wire cuirass. During the summer months it was difficult to keep any apparatus on, but the mother persisted, and after a while the cuirass was replaced by a pair of light club-foot shoes.

Up to the fall of 1891 no attempt had been made to correct the deformity of the shoulders or elbows. Indeed, the winter was occupied in maintaining what had been gained, and re-correcting deformity after slight relapses.

On February 1, 1892, it was noted that the hips were in very good position. There was no dislocation when thighs were flexed. Elbows could be flexed to ninety degrees. Child was beginning to use its hands. It was still difficult to keep the feet in normal position.

April 25, 1892, the limbs were equal in length, no dislocation at hips. A moderate amount of force upward did not cause any subluxation, even. She could sit up. The right thigh was rotated outward a good deal and did not admit of adduction without considerable force. It was difficult to flex the right foot to ninety degrees. The left foot could be brought a little beyond this point.

In the spring of the present year she was subjected to still further treatment in an operative way, and at the same time an apparatus was made to assist in flexing the elbows and to correct the inward rotation of the arms and forearms. This was a spinal brace, with pieces over the shoulder to which arm-pieces were attached.

During the summer the child has worn the apparatus two or three hours, at least, every day, and the muscles

Fig. 6.—Represents a hand very similar to that of Dupuytren's contraction, but pathologically unlike it.

are already very good. She begins to use the hands and elbows more freely, and it is believed that this deformity can, in time, be completely overcome.

Thus I present, in detail, the notes of three cases. The fourth, as above mentioned, was seen in the practice of Dr. Willard, of Philadelphia, and I do not know what the result has been. I have not made a diligent search of the literature, but present them simply as a clinical contribution to the study of congenital deformities, a study which will assist materially in the correction of these deformities and will enable us to give, at least, an encouraging prognosis.

P.S.—The week following the presentation of this paper I saw, through the courtesy of Mr. S. M. Evans, a medical student at the College of Physicians and Surgeons, a patient who presented the same deformity of the hands, only a little more exaggerated. He is a blacksmith, thirty years of age, and presented a pair of hands from which I obtained a photograph shown in Fig. 6. I have been awaiting an opportunity to examine him more thoroughly, but learned this much at the time I had his photograph taken. He has, as far back as he can remember, presented this "walrus fin" hand. He finds the hand very useful, although he can't extend the fingers or the thumb. One looking at it would recognize a Dupuytren's contraction, but on close examination it is

found that the fascia is not involved, but that the skin is atrophied and shortened, and seems to be the chief factor in the production of the deformity. He tells me, furthermore, that his only child, a baby in arms, presents a deformity exactly like his own. This patient I have not seen, but I am promised an opportunity for observation. Dr. Abbe at the close of the meeting suggested the term "walrus fin," as aptly representing the deformity in question.

A CASE OF THORACOPLASTY FOR THE REMOVAL OF A LARGE CICATRICIAL FIBROUS GROWTH FROM THE INTERIOR OF THE CHEST, THE RESULT OF AN OLD EMPYEMA.

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F. E. S——, aged thirty-five, female, married, was admitted to the Methodist Episcopal Hospital on October 5, 1893, with the following history: With the exception of an uncle on her mother's side there is no history of pulmonary disease in the family. In May, 1886, the patient consulted a physician on account of a "squeaking" sound which she herself heard and felt, and which bystanders could also distinctly hear, in the lower portion of the right chest, when she took a deep inspiration. Upon examination she was informed that she was suffering from "fibroid phthisis." Her general health had not been good for some time prior to this, but she does not recall at this time that cough was a prominent symptom.

In March of 1887 she suffered an attack of pneumonia upon the right side, which seemed to run the usual course, as far as can be learned from her statements.

On January 31, 1891, following an attack of "La Grippe," so-called, during which cough was a prominent symptom, it was discovered that her right chest contained fluid. She was treated by blisters, and some internal medication to promote absorption. These measures were ineffectual, and in the following March the attending physician removed, by means of the aspirator, about sixty ounces of what was stated to be sero purulent material. At the end of two weeks another aspiration was performed, the result of which was about thirty ounces of bloody fluid. At intervals of two weeks a like amount of fluid, each time more decidedly purulent, was withdrawn. Five aspirations in all were performed.

In June, 1891, permanent drainage was established, a small rubber tube being introduced between the fifth and sixth ribs.

During the time that has elapsed since the first introduction of the drainage-tube the patient has never been able to dispense with the latter. Antiseptic irrigation of the cavity was practised quite regularly, and in the course of the next five years there was apparently but a very small space which would contain the irrigating fluid; all efforts to close this, including curetting, stimulating injections, etc., failed, however.

Examination showed a sinus with a depressed external opening lined with integumentary tissue, leading from the site of the latter between the fifth and sixth ribs directly inward for a distance of about five inches. Toward the bottom of this cavity the probe deviated in an upward direction and entered a small cavity. About midway between the inner termination of the sinus and its external opening the probe encountered a knob-like projection. With a strong light a rounded body could be seen rising and falling with each respiratory act.

An area of dulness extended vertically in an upward direction from the lower border of the liver to the level of the third rib. Vesicular murmur was found to be present upon auscultation at the apex; this gradually diminished in a downward direction until the area of dulness was reached, at which point it disappeared altogether. The heart was displaced to the right of the sternum. More or less purulent discharge had existed for a greater portion of the time since the drainage-tube had been placed in position, five years before. The patient stated that any attempt to dispense with this was followed by an accession of febrile symptoms.

The patient's general condition was fair. The urinary secretion was diminished to about two thirds of the daily normal amount, although no albumin or casts were present. There was no cough.

On October 7th, the following operation was performed: An elliptical-shaped vertical incision, four inches long, was made in the axillary line extending downward from the fourth rib, so placed as to include the orifice of the sinus. The soft tissues were retracted from each edge of the incision, the chest-wall cleared, and about three and a half inches each of the fifth and sixth ribs removed. There was then revealed a mass of cicatricial tissue which was firmly attached to the chest-wall, and through which the sinus passed in the direction of the median line of the body. This mass was isolated by blunt dissection from its attachments to the chest wall. As the dissection advanced the mass increased in size, until it was found to extend, in a downward direction, to the diaphragm. It was peeled off from the latter until its limit toward the median line was reached. Here it was found to rest against the displaced pericardium. By making strong traction and working with the tips of my fingers, occasionally employing the curved blunt scissors where the adhesions were particularly dense, I at last succeeded in detaching it from the last-named structure. The movements of the diaphragm, as well as those of the heart, impeded the dissection, and great care was needed to prevent wounding the important parts in the neighborhood. The mass was lifted from the cavity of the chest, and finally detached from the lung above.

During the operation hemorrhage was held in check by crowding dry sterilized gauze behind my fingers and exerting considerable pressure thereon. During the separation of the mass from the lung bleeding was quite free, but when this was finally accomplished the hemorrhage ceased almost entirely. But a single vessel required the clamp, and this was in an adhesion on the pericardial side of the mass. As the mass came away a hiatus was left which represented the lower three-fifths of the right cavity of the chest.

Oozing from the surfaces of the cavity was checked by gauze pressure. The heart's action could be accurately studied as this organ beat tumultuously in the depths of the cavity. The latter was tamponned with iodoform and zinc-oxide gauze, the external wound dressed with the same, and the whole secured in position by a chest-binder.

The patient suffered considerable shock following the operation. She soon rallied, however. The breathing did not seem to be greatly embarrassed, but the heart evidently resented the pressure made by the tampon. The pulse remained alarmingly frequent for the first twenty-four hours, at the end of which time it was considered advisable to remove the tampon. It was only necessary to tampon the cavity lightly thereafter, following which the pulse-rate fell from 160 to 120 to the minute. The temperature reached 102° F. within the first twenty-four hours and then fell to 101° F., where it remained for the following three days, from which time on it fell to within a fraction of a degree of normal, save upon one occasion when some digestive disturbance caused an elevation to 100.3° F.

The cavity was irrigated once daily with a 1 to 1000 Laplace solution of mercuric chloride (mercuric chloride, 1 to 1000; tartaric acid, 5 to 1000); what remained of this solution was subsequently washed away by the plasma salt solution. Upon each occasion the cavity was thoroughly dried out and re-tamponned with oxide of zinc gauze. As the lung expanded, a space developed behind the latter which required considerable care to properly cleanse and drain.

The heart gradually receded from its abnormal position, and the granulating tissue, under the stimulating influence of the gauze tampons, together with the expansion of the lung-tissue in the upper portion of the cavity and the collapse of the chest-wall due to the resection of the ribs, gradually closed the cavity. The capacity of the latter progressively diminished until, from holding nearly thirty-two ounces, it finally held less than an ounce. The gauze tampons were now omitted on account of the partial closure of the external opening and the difficulty of dressing in this manner without enlarging the latter. Larger drainage-tubes placed side by side were substituted, and these gradually abandoned as the cavity contracted. Finally, the cavity held less than a drachm, and as this represented about the space occupied by the tube itself, this was omitted altogether. Thereupon the external opening rapidly closed. This took place in just twenty eight days from the time of the operation.

At the present time the patient is apparently well. She is gaining rapidly in weight and strength, and attends to her household duties as if nothing had ever happened to her. The chest-wall has sunken to about an inch and a half below its former level at the site of the resection of the ribs. The normal respiratory murmur is present posteriorly down to the level of the seventh rib; anteriorly, it can be heard down to the fifth rib. Complete flatness exists in the area in which the vesicular murmur is absent. The heart has receded until the apex-beat appears to the left of the sternum.

The report of the pathologist, Dr. Eugene Hodenpyle, upon the growth removed, is as follows:

The mass removed consists of exceedingly dense fibrous tissue, containing here and there bits of cartilage and osteoid tissue. A fistulous track extends the length of the specimen, lined by dense layers of epithelial cells, beneath which are many rudimentary sebaceous glands. A number of sections revealed in places the epithelium, arranged in such an irregular manner that portions seem to be included in the fibrous tissue so as to suggest at first glance, epithelioma. In none of the sections can any structures be found which in any way resemble lung tissue.

Viewed in the light of the pathological findings, taken in connection with the clinical history, the case seems to be one in which a fistulous tract, lined with integumentary tissue continuous with that of the chest-wall, and surrounded by a mass of fibrous tissue of cicatricial origin, was removed. The case suggests a method of dealing with some of the instances of old empyema with persistent sinus which resist all of the means usually employed for their cure.

Chronic Otitis.—Katz highly extols the use of chromic acid in this affection. He uses a three per cent. solution in those cases where the perforation is fairly large, and the exposed tympanic membrane much swollen or appearing tumefied; that is, where there is a tendency to formation of granulation tissue. The method is as follows:—The ear is carefully cleaned from all discharge by syringing, the use of Politzer's air douche, etc., and then dried. Then about six or eight drops are instilled into the ear with a pipette, forced into the middle ear by pressure on the tragus, and allowed to remain for two minutes, when they are syringed out with warm water injections. The outer ear is then filled with a cotton wool plug. This is done three or four times weekly, according to the action. There is usually seen after the third instillation a marked decrease, and in some a complete cessation, of the discharge, with considerable reduction of the swelling of the mucous membrane.

Symphyseotomy for resection of the male bladder has been done by Albarran in a case of epithelioma growing from the base of the bladder close to the neck. The pubic bones were drawn nearly two inches apart, and a large part of the bladder wall lying below the level of the pubes was excised. Good recovery.

Progress of Medical Science.

Gastric Manifestations Associated with Tuberculosis.—Dr. Potain, of the Charité Hospital, says the vomiting of phthisis is dependent upon three causes: 1. Subacute inflammation of the stomach, *i.e.*, subacute gastritis. 2. Dyspepsia due to general debility. 3. Constant or intermittent irritation of the vagus apart from any pathological change in the stomach itself. The symptoms usually make their first appearance in the stage of cavity formation in pulmonary tuberculosis. Patients who until then had suffered from moderate anorexia, now have complete loss of appetite. Digestion becomes sluggish, sometimes painful, but seldom accompanied by pyrosis or flatulency. The epigastric region is tender on pressure, tense, and frequently retracted. The tongue is dry, red, and glazed, and forms an excellent medium of culture for the parasite of thrush. There is seldom vomiting, but diarrhœa is a frequent accompaniment. The terminal gastritis of phthisical patients is not amenable to treatment, and is an indication that the end will not be long delayed. In the evolution of the gastric lesions, in the majority of cases nothing is found beyond a certain amount of hypertrophy of the mucous membrane of the stomach, the natural thickenings of which stand out with unnatural prominence, imparting to the surface of the membrane a peculiarly roughened appearance. It sometimes happens that these changes are limited to isolated portions of the mucous membrane, the remainder preserving a normal appearance. In more advanced cases, however, the surface of the thickened membrane becomes covered with polypoid vegetations resembling the formations described by Dr. Brissaud under the name of gastric polyadenomata. Lastly, when the condition has lasted for a long time, punctiform erosions are sometimes, though rarely, to be found scattered over the mucous surface, very few attaining the size of a pin's head. But these facts require to be confirmed by further investigation. From a histological point of view it is sufficient to say that the inflammation commences in the interglandular portions of the mucous membrane, while the secreting epithelium is only secondarily affected. It is, in fact, an intertubular gastritis extending from immediately underneath the epithelium toward the muscular coat of the stomach, which, however, never becomes involved in the inflammatory process.

Potain regards the morbid appearances found in the stomach as the result of suppuration in the pulmonary cavities, since they resemble closely the lesions found in convalescent typhoid patients. It is a question *sub judice* whether the primary cause of the lesions is introduced into the stomach by way of the expectoration or the blood. Although the gastritis of phthisis cannot be regarded as one of the symptoms of pulmonary tuberculosis, the same does not hold good in respect of the dyspepsia which marks the early stage of this affection, described by Marfan as the initial gastric syndroma. Whenever you are confronted with a patient suffering from cough and vomiting, which cannot be explained by the presence of any cardiac, vascular, or pulmonary lesion; whenever these symptoms are associated with emaciation and but little, if at all, influenced by appropriate treatment, you may anticipate the development after a variable period of time of the characteristic manifestations of pulmonary tuberculosis.

It is interesting to compare the gastric manifestations of incipient phthisis with the terminal gastritis associated with the advanced stage of this affection. The first of these early gastric symptoms is loss of appetite, but this anorexia is apt to assume various forms. In some cases the patient still relishes certain kinds of food, while in others there is complete anorexia. The patient complains of constant pain with a feeling of weight and distention in the region of the stomach. The gastralgia is worse after meals; the stomach is distended with gases, and the patient suffers from pyrosis and acid eructations,

symptoms that are very seldom observed in true tubercular gastritis. These symptoms become rapidly aggravated, and in a short time cough and vomiting, which are especially characteristic of this condition, are superadded. The ingestion of food at once excites a dry paroxysmal cough, which usually persists until the contents of the stomach are expelled. On the other hand, the cough ceases in most cases immediately vomiting takes place, so that it is obviously due to gastric irritation. Digestion excites cough, and cough causes vomiting; this cycle of events is absolutely characteristic of the phenomenon known as gastric cough. The physical signs of this gastropathy are also peculiar: the tongue remains smooth and moist, there is but little tenderness on pressure over the stomach, which can be easily explored and is usually dilated. Lastly, and this symptom is not devoid of a certain importance, the patients are usually constipated. The cause of the dyspepsia of early phthisis is not exactly known; it is evidently not due to the direct action of the tubercular virus on the stomach. In Potain's opinion these manifestations are more of the nature of neuro motor phenomena without any pathological change in the stomach itself. Atony of the muscular coat of the stomach can be compared with general loss of muscular strength and debility, and as a matter of fact they often exist concurrently. Gastric disturbances are of common occurrence both at the beginning and at the end of an attack of pulmonary tuberculosis; we have an initial dyspepsia and a terminal gastritis differing markedly from each other in character. They very seldom follow each other in the same patient, a further indication of the pathogenic differences which exist between them. There are numerous causes of vomiting in phthisis, but cases are also met with in which the stomach is perfectly normal, and the vomiting must be referred to irritation of the pneumogastric nerve.—*The North American Practitioner.*

Clinical Aspects of Fibroid Phthisis.—In an article on the varieties of pulmonary tuberculosis by Dr. J. K. Fowler, published in the *Practitioner*, this author gives the following *résumé* of fibroid tuberculosis: 1. Men are more often affected than women, and the period of onset is later than with the ordinary type. 2. The tendency to fibrosis is increased in those individuals whose lungs have been rendered vulnerable by inhaling irritating dust particles; the affection is therefore common among workers in various trades, *e.g.*, miners, knife-grinders, etc.; but it is by no means confined to such subjects. 3. There is often no family history of tuberculosis, but in one of the most marked examples known to the writer several brothers had suffered from tuberculous disease. 4. It is often accompanied by hæmoptysis, which may be profuse and recurrent. After the early attacks of hæmoptysis there may be no physical signs of disease within the lungs—their absence is of course no proof that such is the case. 5. Emphysema and bronchial asthma are frequently found in association with it. Catarrh may be present, but in some cases there is not the slightest tendency to that condition. 6. It is characterized by apyrexia which may persist almost throughout the case, even during periods of extension of the disease within the lungs. 7. The cough has not the paroxysmal character observed in "fibroid phthisis," and does not tend to produce vomiting. 8. There is an absence of night-sweats, and, generally speaking, of all acute symptoms. Dyspnœa is proportionate to the extent of infiltration and of emphysema, if present. 9. The sputa may be free from bacilli, or on the other hand they may always be present when looked for, a condition which is quite consistent with an absence of signs or symptoms of progressive disease. In a case known to the author they have been invariably found, when searched for, since the year 1882, during which period the individual has enjoyed almost uninterrupted good health. Microscopical examination of fibroid lesions in a stage of arrest may fail to show the presence of bacilli, although to the naked eye the appearances are unmistakably tuberculous. 10. The physical signs may consist of weak breath sounds and fine crackling râles mixed with catarrhal sounds. The râles may be widely distributed, but tend to spread from the apex toward the base. There may be no dulness; in its place there is often hyper-resonance from emphysema. 11. The wide area of the lungs over which the physical signs are present, in advanced cases, is often in marked contrast with the apparent well being of the individual. 12. Fibroid tuberculosis tends more than any other form of the disease to undergo arrest, and, short of that, to run a very prolonged course. Its recognition, therefore, becomes of great importance from the point of view of prognosis.

Operative Treatment for Dislocation of the Semilunar Cartilages.—Dr. Bruns reports four cases in which he operated successfully for dislocation of one of the semilunar cartilages of the knee, and from the literature of the subject collects others to the number of forty three. The dislocation affected the internal cartilage twenty-seven times out of the forty in which the point was specified, contrary to the opinion usually held. The dislocation is usually partial, and generally concerns the anterior portion; although the posterior end, or even the middle third of the cartilage, has been found torn from its attachments. A rarer form of injury is that in which the cartilage is wholly or partially torn across, or even crushed into a shapeless mass of fibres at one end. The dislocation follows almost always upon a traumatism; but in some cases a gradual loosening of the attachments seems to take place, a sort of spontaneous dislocation following. But Bruns emphatically denies that it is liable to follow over distention of the capsule, as in hydrops; in fact, he considers short and strong ligamentous structures as necessary for the displacement, which, in his opinion, occurs in forced rotation with the knee flexed. The diagnosis should be easy, by reason of the peculiar locking of the joint and the presence of the displaced meniscus close to the joint-cleft. In some cases the cartilage cannot be felt, but the joint-cleft is often found widened and more evident than normal, and somewhat tender. Treatment of the fresh dislocation would consist of immobilization for some four or six weeks; but even then it will not, as a rule, bring firm adhesions. Where the dislocation has become habitual, only operation can serve: and here it seems to matter little whether the displaced part of the cartilage be resected, or returned and sutured in place; for the functional results seem to be perfect in either method, even where the cases have been followed for years. Twenty-four cases were treated by extirpation, the rest by suture, all recovering.—*International Medical Magazine.*

Premature Labor in Accidental Hemorrhage.—The practitioner is ofttimes sorely puzzled to decide what course to pursue in cases of repeated accidental hemorrhage during pregnancy. In a case recently brought before the London Obstetric Society by Dr. Muir, premature labor was induced after a second smart attack of bleeding, with the delivery of a living fœtus. The placenta was found to be the seat of two distinct hemorrhages, of different dates, involving three-fifths of the entire organ and leaving only two-fifths to carry on the nutrition of the fœtus. It is evident that any further hemorrhage must infallibly have determined the death of the fœtus, and this Dr. Muir opines is an argument in favor of inducing premature labor and saving the life of the fœtus in cases where there has been a recurrence of the hemorrhage. The usual course, unless the amount of the bleeding is such as immediately to threaten life, is to keep the woman quiet and trust to luck. The result is in most instances spontaneous premature delivery, with an asphyxiated fœtus, a very unsatisfactory *denouement.* By so doing we shall be safeguarding the interests both of the mother and the child, for both are vitally interested in preventing a repetition of the morbid phenomenon.—*Medical Times.*

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New York, December 30, 1893.

TYPHOID FEVER IN CHICAGO.

CHICAGO may be considered pre-eminently the city of typhoid fever. From January 1, 1890, to November 1, 1893, there have been 5,087 deaths from this disease, or an average of 110 per month. This means that there have been from 25,000 to 30,000 cases. The epidemic began in 1889, with 453 deaths. The mortality increased until 1891 and 1892, when it reached nearly 2,000. It declined slightly in 1892, and has been somewhat less this year, but it is still very prevalent, there having been 712 deaths, and presumably over 4,000 cases, during the year ending September 30, 1893.

The above facts and their causes were recently presented in a direct and forcible way to the Chicago Medical Society by Dr. O. N. Huff, at one time member of the city Health Department.

Dr. Huff admits that there has been a disposition on the part of the city authorities to prevent the public having a full knowledge of the subject. Last winter, when he desired to present the matter to the Chicago Medical Society, he was actually forbidden to do so. The reason was partly the World's Fair, but also because it was on the eve of a municipal election and politics was in command.

A striking evidence of the defects in Chicago's sanitary administration is the absence of any trustworthy statistical records. Mr. Hart's statement, that the city afforded no sanitary records of great value, is confirmed by Dr. Huff. The low death-rate to which Chicago points as an excuse and justification is certainly misleading, even if it is numerically correct, for the city, according to Dr. Huff, has a very large proportion of people below the age of forty-five.

The causes of the prevalence of typhoid fever lie unquestionably in the water-supply. Dr. Huff gives facts and exhibits maps which seem to put this quite beyond doubt. The authorities of Chicago are, we believe, fully aware of this themselves, and are trying to mend matters by extending the source of the water-supply farther into the lake, and by trying to divert the sewage flow in another direction. We infer, however, that a large part of the city's water is obtained from cribs that are within the sewage line. It appears also to be very well proven that the administration of matters connected with the water-supply and sewage, has been in the past criminally negligent. The vicious system of a partisan government for spoils is responsible for this, as it has been for so much evil in municipal government elsewhere.

Dr. Huff's conclusions are worth presenting here. He says:

1st. That typhoid fever has been endemic in Chicago for at least four years.

2d. Since January 1, 1890, more than 5,000 lives have been destroyed by causes which modern medical science says are preventable.

3d. The cause of this frightful mortality can only be explained by a polluted drinking-water.

4th. The northern portion of the city has suffered a much greater death-rate than the rest of the city, to the extent of twice as great in 1891, and 2.34 greater per 10,000 in 1892.

5th. This variation in death-rate is not due to a difference in the character of the people, nor less desirable sanitary surroundings, but is produced by a more impure water-supply.

6th. This greater impurity of the water-supply was because north and northwest Chicago received a much greater portion of the water coming from the intake, 3,000 feet from shore.

7th. Some of these causes have been removed, and 1893 shows a marked decrease in death rate from typhoid fever, but Chicago is still having a much greater rate than any other large city, and with favorable conditions of rainfall, flood, wind, and current, Chicago is still in a position to have the epidemic renewed.

8th. That the whole system of drainage in the city is wrong, and "the sanitary history of Chicago is a history of makeshifts and expedients."

9th. Lake Michigan, in its natural state, is a water-supply "to satisfy the most captious," and it seems little less than criminal to pollute it with sewage from 1,500,000 people.

10th. We believe that a remedy is possible for the removal of the pestilential system, and that the question should be kept before the profession and the whole people until Chicago can have a pure lake water unpolluted by human and surface sewage.

THE WIDER AIMS OF THE NATIONAL BUREAU OF HEALTH.

IT is a little interesting and of great practical significance, that the new science of bacteriology, involving as it does the development and practice of most delicate and subtile methods of research, should, at the end of its first decade, have placed at the service of mankind means for its protection against disease which are not bound up within the limits of the laboratory, which require for use no intricate technical training, but which every health board can freely and easily employ, and every citizen in his usual walks of life beneficently foster.

The possibility of the wholesale prevention of disease by simple and easily comprehended methods, this is the great practical achievement which marks the medical science of to-day.

We can now see, with a certainty and definiteness never possible before, just how the average length of life may be raised, and an incalculable amount of suffering be spared, by the judicious and persistent use of the new protective resources against the ravages of infectious disease.

But in order to avail ourselves of these new resources, it is evident that the greatest good can be accomplished through those carefully organized official bodies of experts and specially trained men which constitute our boards of health.

The people are to be informed, advised, and helped in those details of sanitation and cleanliness by which alone the new promise may be realized, and the new knowledge is as speedily as possible to be made available for practical purposes by such organizations. By such organizations, and by them alone, can the safety of our people be secured in the face of threatened epidemic invasion.

But in a great confederation of States, like ours, something more than local health boards, however excellent these may be, is necessary, in order to stimulate, and harmonize, and help in the larger interests which our character as a nation involves.

This conviction has grown to be so fixed and strong among the medical men of the United States, that it is not surprising that a movement toward the establishment of a National Bureau of Health should have received the most wide-spread and practically unanimous support of physicians from all parts of the country.

The bill for the establishment of a National Bureau of Health, which was formulated by a committee of the New York Academy of Medicine, with advice and counsel from widely separated sources, and which is already in the hands of appropriate committees in both of the legislative bodies at Washington, seems to us admirably framed to accomplish the ends which the medical profession deems important, and at the same time is so moderate in its demands on the material resources of the country, and so wholly unpartisan and unsectional in its conception, that it does not seem possible that it shall encounter serious opposition or fail of abundant support.

The time is ripe for the enactment of such a measure, and it is safe to say that there is not a citizen of the United States who would not personally profit by the beneficent forces which the measure can bring into play.

While the administration of quarantine is provided for in considerable detail, it has apparently not seemed wise to the committee having the preparation of the bill in charge to propose at present any radical change in the system which has proved so efficient under the trying conditions of the season just past. The bill looks chiefly to the larger, and far more important, matter of the establishment and maintenance of such good sanitary conditions in all parts of the land as shall enable the people everywhere to cope, not only with those dramatic epidemic scourges which now and again may threaten them, but to control and largely suppress those infectious diseases which at all times are with us, and contribute so largely to suffering and to mortality among all classes of our people.

It is time that the United States should undertake to do for its citizens at least as much as it has done for its cattle; it is time that, as a nation, we should be ready to join intelligently and efficiently with other nations in the common fight for the suppression of communicable diseases; it is time that we should do what can be done to brighten the promise of the future by fostering research in the domain of preventive medicine.

NAIL-BITING AS AN EVIDENCE OF NERVOUS DISEASE.

Dr. Berillon, of Paris, who is chiefly known as a rather enthusiastic student of hypnotism, has published the results of what is announced to be a very elaborate study of nail-biting. He established the wide prevalence of the habit among French school-children. Thus, in a mixed school of the Department of l'Yonne the reports showed the following results:

	Number examined.	Nail-biters.
Boys	29	6
Girls	21	11
Total	50	17

The proportion of nail-biters here was for boys twenty per cent., and for girls fifty-two per cent.

In a boys' school at Seine-et-Marne the pupils were examined with respect to age with the following result:

	Number examined.	Nail-biters.
12 to 14 years	18	7
13 to 15 years	16	6
15 to 17 years	18	3
Total	52	16

From twelve to fourteen seems from this to be the age most susceptible to this habit. A like experiment with girls shows them to be even more susceptible at this age.

	Number examined.	Nail-biters.
10 to 13 years	80	27
12 to 15 years	75	21
15 to 16 years	52	13
16 to 17 years	10	2
Total	217	63

In all the schools where the children have been the objects of careful and attentive observation, the reports have agreed in pronouncing that pupils observed to have the habit are universally the poorest students; that if boys they are inclined to effeminacy, and if girls to slackness. In many there are marked defects of character and less sustained attention. The reports of writing-masters also declare their writing to be, while sometimes well formed, universally less legible and less regular, and the instructors in the Parisian schools for manual training have pronounced the habitual nail-biters hardest to teach and often unfit for technical education.

Among such pupils some have shown brilliant intellectual traits. Some are possessed of an astonishing memory, or show exceptional adaptability to certain arts or certain special studies. Of these "infant prodigies" a large proportion are found to be nail-biters. In such cases the exceptional brilliancy was of unnatural and ephemeral growth, and vanished at the age of fourteen or fifteen. The extraordinary development had compromised the normal evolution of the nervous system. In schools for children from six to eight years old those pupils cited by the matrons as most incorrigible, and upon whom fell the most constant discipline, were found, almost without exception, to be possessed of the habit.

In general, the nail-biters were found to be of decided inferiority, both from a point of view of intellectual development and from that of moral sensibility.

As to the cure, Berillon advocates strongly the grouping in classes of the children of the *lycées* who manifest

the habit, where they may be subjected to special discipline and hygienic treatment on the order of that which is employed in the English system of reformatory schools. He is opposed to the isolation of pupils who have the habit, as practised in England, on the ground that cure by this means is only transient. Regarding the habit as an indication of nervous degeneration, he would, in all cases, begin by a careful system of food and exercise, and thus try by every means to fortify the nervous system of the child. For curing the after-habit, which continues when the cause has been removed, he employs his own treatment, which is as follows: 1. To create a counter-irritant and thus to transform by outward excitation the unconscious act into a conscious one. 2. To create a counter-automatic impulse. 3. To strengthen the resolution of the child. He adds to these the treatment by suggestion while in hypnotic sleep.

THE DANGERS OF AUTOMATIC SPECIALISM.

In a recent number of the *Asclepiad* its talented author writes entertainingly on the healthy culture of the literary life. He utters a caution against narrow specialism in literary work, which is not inapplicable to specialism in medicine. "Philosophical historians have noted," he says, "how different ages present different, and, as it were, alternate pictures of mental and physical power. This age was one of genius, that of mediocrity; this of war, and that of peace; this of quiet inventive thought, that of inventive application," etc. As he well points out, these phases are all natural phenomena explained by well-known physiological data.

There is at the present time a tendency to introduce the mechanical principle into all departments of knowledge. Mental operations are trained to move with the precision of machinery. Parallel with this is the tendency to work in grooves. We call these latter specialties, and our present methods tend to lead up to an ideal perfection in one particular line of medical practice. This is to a certain extent most commendable, but, if carried too far, it saps vital nervous power. It makes the physician too dependent upon the instruments of precision which have been elaborated for the performance of his special line of work. He exalts the physical far too much above the physiological factor in diagnosis, and concentrating his attention too much upon one organ or set of organs, he forgets that they are but a part, and that the whole is greater than any one part possibly can be.

Especially is this true at the present time, when so many of the younger medical men are branching off into specialties without a sufficiently broad and deep foundation in general practice. Society membership, instrumental equipment, and facilities for clinical observation can never alone make a well rounded specialist. The ideas of diathesis in disease of hereditary tendencies and the like can be learned from books, but can never be apprehended in all their fulness except by long and patient watching at the bedside. The quick roads to apparent success which open so attractively, lead to limitation of view and of knowledge. Thought is repressed instead of stimulated. One becomes more and more dependent on others. "The perfect master in his own department is a helpless child so soon as he is out of his own narrow sphere."

The expansion of knowledge in every department of life has largely put an end to that ideal of "knowing something about everything, and everything about something." Only a few minds in a generation can hope to do this in anything like a systematic and efficient manner. The glory of modern specialism is that it has unravelled difficult questions in the etiology of disease, and its crowning work must lie in its ability to meet the demands which this new pathological inquiry makes with adequate therapeutic measures. To do this requires mental expansion in every direction, and not alone in any one.

News of the Week.

Dr. Samuel H. Olmstead, one of the old and most prominent physicians in Brooklyn, died at his home on December 23d. He had been ill but a short time, his death resulting from cerebral hemorrhage. Dr. Olmstead was born in New Haven, Conn., sixty years ago. He entered Yale College, and was graduated with high honors. At the breaking out of the war he entered the army as a surgeon, and was made a lieutenant-colonel. When the war ended he settled in South Brooklyn, where he built up a large and lucrative practice. He was an officer of the Loyal Legion and of the Kings County Medical Society, and was at one time connected with the Long Island College Hospital.

Only French "Doctors" on the Riviera.—Under a law recently put in force, only physicians graduated in France are allowed to use the title "Doctor" in that country. Consequently the English and American physicians on the Riviera have been requested to remove the title from their door-plates. They will be allowed to retain their practices, if they were certified health officers prior to the enactment of the law.

Popular for Her Debility.—*The Sun*, which is something of a fashionable purist as regards its English, publishes the following: "A certain physician had been called regularly every day to treat a woman who was very popular socially for general debility and exhaustion."

The Medical and Pharmaceutical Professions in Italy.—Official returns for 1892 give 19,120 as the number of general practitioners (*medico-chirurgi*) in the Italian peninsula, and 10,942 as the number of pharmacists provided with matriculation certificates and diplomas. Besides these there are 172 pharmacists possessing the inferior qualification known as the "bassa matricola," which has descended from the Pontifical government, and there are also 1,392 pharmacists' assistants. Out of 100,000 inhabitants there are, on an average, in Italy, 62 general practitioners (*medico-chirurgi*) and 36 matriculated pharmacists. Of the 19,120 general practitioners, the University of Naples is represented by 7,038 who have taken her degree. In the other continental states the general practitioners and pharmacists are much fewer in proportion to population than in Italy. Indeed, while Italy has 36 pharmacists per 100,000 of her inhabitants, the German Empire has but 13.3; Prussia, 11.9; Bavaria, 15.5; and Austria, 9.3.

Longevity and Ovariotomy.—Dr. Harris, of Philadelphia, has written to Sir Spencer Wells to inform him that there is living, and in excellent health, an unmar-

ried lady, eighty-one years of age, for whom the late Dr. John L. Atlee performed ovariotomy in June, 1843, more than fifty years ago. Dr. Harris asked if this case can be paralleled in England. This was Dr. Atlee's first ovariotomy. He had 80 cases; he operated on 7 in the year he became eighty-four years of age; he performed tracheotomy when nearly eighty-five, and died when nearly eighty-six years of age. We are indebted to Sir Spencer Wells for the interesting facts furnished by Dr. Harris.—*British Medical Journal.*

Dr. M. Landouzy has been appointed Professor of Internal Medicine and Therapeutics in the Paris Medical Faculty, in the room of Professor Hayem.

A New Surgical Institute for Paris.—Dr. Terrier, now at the Bichat Hospital, will replace Dr. Le Fort at the Pitié. Dr. Terrier, who is an enthusiastic advocate of antiseptic and aseptic surgery, has asked the medical faculty to give him a new service, organized entirely according to his ideas. His request has been granted, and the faculty will ask the Conseil Municipal to supply the funds required. There is a piece of unoccupied ground close to the hospital which will serve as the site for the new surgical institute.

There is said to be a good opening for a physician somewhere in North Carolina.

The Grip is undoubtedly developing rapidly in this and other cities. It does not seem to be so fatal, and in many cases it takes a nervous or muscular type. The patient suffers much from pains and prostration, but has few catarrhal symptoms.

Misuse of the Mails.—A few days ago one Hunter, an electric-pad-device man, was sentenced to the penitentiary by the United States Court of Cincinnati for a misuse of the United States mail, on the ground that his scheme was to defraud the people by selling a useless device.

The Medical Department of the Cincinnati University Degrees are said to be on sale and selling high in London, whereas none have ever been issued by that institution.

Cincinnati Physicians are getting very much waked up over the subject of quacks and illegal practitioners. The State legislature has repeatedly refused to enact a law protecting the public and the profession. It will not, however, be able to hold out much longer. Let the Cincinnati Academy organize a movement to reach the legislators before they assemble by means of local physicians, and they will succeed in getting what they want.

Patented and Proprietary Cosmetics.—When ladies wish a cosmetic, the wisest plan is to secure the advice of a physician who has paid some attention to a subject which concerns womankind so deeply. There are now several excellent treatises on cosmetics which deal with the matter legitimately. If the lady does not get the formula for a cosmetic from a responsible physician, it is safest for her to select a patented article, because Uncle Sam will not grant such rights for any article that is injurious. That is one reason why most makers of such preparations keep their composition secret and content themselves with trade-marks and labels. The protection accorded by law to a label or trade-mark may be perpetuated indefinitely by registration, whereas a patent can only be extended by act of Congress. The rules of the Patent Office reject all that is "injurious to the well-being or sound morals of society." A patented cosmetic is good to purchase because it has been analyzed by skilled Government chemists, and has stood the requisite test of novelty and usefulness. The same remarks apply to foods. A recent application for a patent on a liquid preparation for brightening the eyes, alleged to "intensify their color and brilliancy," was refused, as a matter of course, because it contained a harmful drug. One face-wash submitted not long ago revealed on examination the presence of corrosive sublimate as an ingredient.

Some Curious Dental Patents.—Dental surgeons have patented processes for imitating gold fillings in false teeth. This is done by burnishing gold-foil upon them in the manner commonly termed "fire gilding." Nobody would be likely to suspect that grinders showing plain signs of repair were artificial. Several applications have been made for patents for processes for setting diamonds in the teeth—the front teeth, of course—holes being drilled to receive the gems.

A Patent Aseptic Suit.—In the Patent Office at Washington is a disease-proof suit of clothes, intended to be worn by an operating surgeon. It is a comple suit of rubber armor, somewhat resembling a diver's dress. Being air-tight, no germs can enter it. Beneath each foot is a small bellows, which, being compressed by the action of walking, blows fresh air through the armor. The air enters and is filtered through a germ-proof diaphragm under the foot, passing upward and out through a similar diaphragm at the top of the head. The physician is enabled to see by two glass eye-pieces.

The Richmond City Hospital has been purchased by the College of Physicians and Surgeons of that city for $18,489.39.

It is Estimated that a Modern Medical College Plant, with facilities for imparting instruction to four hundred matriculates, would require an outlay of $150,000.—*Maryland Medical Journal.*

The Doctor as a Horse-killer.—Country doctors, even in regions where the roads are level and fairly well made, rival the street-car companies as destroyers of horses. It is a good horse that will serve a busy country doctor more than five or six years, and physicians that keep two horses to drive alternately, expect to buy a new one every five years. At the end of that time a doctor's horse is commonly fit only for the cart or plough. The speed has been driven out of it.—*The Sun.*

A Medical Tragedy.—An especially sad example of the dangers to which physicians are exposed is reported from Presburg, in Hungary. A physician, after visiting a patient with diphtheria, went home to change his clothes before continuing his calls. On entering the house his little son rushed up to him, and before the father could prevent it, had jumped upon him and kissed his face. Two days later the child was taken ill, and soon died of septic diphtheria. The father's reason gave way under the blow, and he died after a short illness attended by acute delirium, in which he constantly cried out, "I have killed my boy."

Society Reports.

SOCIETY OF MEDICAL JURISPRUDENCE.

Ninety-eighth Regular Meeting, December 11, 1893.

N. E. Brill, M.D., President, in the Chair.

Suicide and Evolution.—W. A. Shortt, Esq., read a paper upon this subject, treating of it in a way not without some interest to the practitioner of medicine. The theory which he offered in explanation of suicide—and he did not claim that it was yet more than a theory—was a somewhat novel one, namely, that it was an outcome of evolution which had resulted in the development of the higher centres at the expense of the lower, or instinct. He said that between the medical mind and the legal mind there was a deep gulf, which was especially manifest in the way in which they regarded the question of insanity, and, it might be added, suicide. The physician looked upon insanity as merely an abnormal mental condition growing out of a set of physical facts, such as disordered nutrition or diseased state of the nervous system. The lawyer, on the other hand, thought of insanity from the aspect of morals or ethics. The same difference of opinion existed between them in the view they took of suicide. The lawyer regarded it as a crime, and to be punished as such in case the criminal failed of his object; whereas the physician looked upon it as a form of insanity, as due to an abnormal physical condition, and applied treatment in accord with that view, disregarding the moral aspects of the act.

The author opposed the view that suicide was an indication of insanity. If this were true, he said, the number of suicides in a community would be in proportion to the number of the insane. Statistics showed that the reverse was true in most countries. In England the rate per million inhabitants was, of the insane, 3,190; of suicides, 75; in Scotland, of insane, 3,215; of suicides, 35, or a slight increase of insane and marked decrease of suicides; in Ireland, of insane, 3,676; of suicides, 10, being a still greater increase of insane and decrease of suicides. Neither did suicide and insanity correspond in periods of occurrence. For instance, insanity increased at puberty, whereas suicide remained low between the tenth and twentieth years.

Further evidence that suicide was not an indication of insanity, and was to some extent influenced by external circumstances, was shown by the fact that in the German army, consisting of picked men, supposed to be the strongest, the number of suicides was enormous. More doctors cut their throats than lawyers. The descendants of Abraham had always shown a repugnance to suicide.

Again, if suicide was due to insanity the causes ought to bear some proportion to one another in the two classes of cases. In insanity, a blow, a tumor, a pathological condition of some form in the nervous system existed much more frequently in proportion to some powerful moral shock than in suicide.

As bearing directly upon the question of evolution and suicide, the author said that animals never committed suicide. He doubted the case of the scorpion, and it was well known that in them instinct especially held sway. The lower the animal, the more instinctive were its actions. It was not until we came to man that volition and intellect became particularly manifest. In him, were it not for instinct, there would be nothing to restrain from the act of suicide, even under minor degrees of provocation. The growth of intelligence weakened all the instincts, including love for life, and it was the substitution of intelligent action for instinctive action which made suicide possible. The whole process of modern education and civilization tended to weaken instinct. Under the predominance of intellect occasions arose when a man might well question whether life was worth living; but where instinct held sway, he simply went on living. So far as his acquaintance extended he had found that all lawyers regarded only the external facts as influencing suicide, while all physicians considered alone the internal facts or physical condition of the individual. That both might play a part would be manifest from an extreme example: Smith's wife runs away, his daughter is ruined, he loses an only son, and fails in business. Under such circumstances is it necessary to suppose that he must be insane in order to commit suicide? Yet Jones, who is more under the influence of instinct, would go on living in spite of these, to Smith, overwhelming circumstances. The subjective factor must be strong, as well as the external circumstances, in order that one should commit suicide.

Statistics were again appealed to in contrasting the prevalence of crime with that of suicide. Crime implied the presence of instinct in full force, yet the rate of suicide was the reverse of that of homicide. That is, the degree of civilization where suicide was greatest was just the reverse of that where homicide prevailed. In the former, instinct was weaker or quiescent. In every portion of the world the extent of suicide corresponded with the extent of culture. This had also been true in ancient times. In Denmark, to day, where education was carried furthest, the proportion of suicides was greater than in any other part of the world with the exception of France, or, more particularly, Paris. In Arabia suicide was as rare as frost in Cairo. Culture was more widely distributed among men than among women, the latter were also more under the influence of instinct, and it had been observed that three men committed suicide to one woman.

Suicide was most common in May and June, the pleasantest, brightest, and most delightful months of the year, while in December and January, the most unpleasant months, the number of cases was at a minimum. The author would explain this oddity by the high state of activity of the instincts necessary to the prolongation of life during the severer months, and their low state of activity during the period of "spring fever." As soon as successful effort relaxed, instinct decreased. The fact that suicide was much more common in the day than at night pointed to the same conclusion.

Prevention.—The only treatment was obviously prophylaxis, and lay in exercise and such physical methods as would cultivate the instincts while obtaining an education. The student at present became only a thinking machine. All spontaneity was suppressed, the animal, the instinctive nature was squeezed out of him, and when, by the age of fifty, his partner robbed him, he took the shortest road out of the trouble.

Evolution, Devolution, Degradation, Suicide.—Dr. Frank Ferguson disclaimed to have given much thought to psychological questions, but he said that among the suicides on whom he had had occasion to make autopsies rickets was not uncommon; neither was dissipation to the point of being cast off by family and friends. Again, when a man had everything to the utmost range of his capacity of enjoying, and it all went away as by a breath of wind, the question of evolution was turned into one of devolution, of degradation, of a life which ceased to be one worth living—of suicide.

John A. Kamping, Esq., thought the view taken of suicide was, usually, a practical one by the lawyer, a theoretical one by the physician. The doctor's theory, carried to its legitimate conclusion, would make of every crime a mental disease, and, therefore, not a crime at all. In other words, that there was no such thing as moral obliquity. He drew his inferences entirely from a supposed relation of body and brain. The lawyer took the view of society generally, holding that to take life was murder, and the man who committed suicide was as much a murderer as he who killed his neighbor. Where, however, the life was taken because of mental disease moral responsibility was not present.

Narcotics, Intoxicants, and Suicide.—Dr. Quimby, of Jersey City, believed suicide to be due to poisoning the system with narcotics and stimulants of various forms,

including tobacco and especially alcohol. The few cases which he had seen were to be attributed to these causes. Dissipation ended with being cast out by family and society, by complete degradation, and a suicide's grave.

Do Animals Commit Suicide?—Dr. Robert S. Newton said there were countries in which suicide was regarded as proper. It was extolled in the religion of Brahma, and many of the people adopted it. Indeed, religious belief had much influence in the taking or not taking of one's own life. For instance, who would expect to hear that one who had committed suicide was a Presbyterian? He thought one reason why physicians said little about the moral aspect of the question was because of its close relation to that of religion, with which they felt that it was best not to meddle. The reader had said animals did not commit suicide. This was a mistake, for in Norway there was an animal which resembled in some respects both beaver and otter, and it had been observed that every nineteen years droves of them went to the water's edge, separated themselves into two groups, those of one group plunging into the water and deliberately committing suicide, making no attempt at rescue, notwithstanding their ability to swim. There was other evidence, too, that animals sometimes took their own lives.

Officers Elected—*President*, John S. Smith, Esq.; *Vice-President*, Edward F. Brush, M.D.; *Secretary*, W. H. Bates, M.D.; *Treasurer*, D. McLean Shaw, Esq.; *Corresponding Secretary*, Benjamin A. Jackson, Esq.; *Lawyers as Trustees*, William J. Lardner, Walter S. Logan, L. Van Allen; *Doctors as Trustees*, N. E. Brill, H. N. Heineman, Stephen A. Roof, H. Holbrook Curtis.

Correspondence.

OUR LONDON LETTER.

(From Our Special Correspondent.)

THE PRESIDENCY OF THE ROYAL COLLEGE OF PHYSICIANS—ELECTION OF DR. RUSSELL REYNOLDS—THE GENERAL MEDICAL COUNCIL—DIPLOMAS IN STATE MEDICINE—THE EDUCATION COMMITTEE—FALSE DISSEMINATED SCLEROSIS—MEDICO-CHIRURGICAL SOCIETY—FIBROSIS OF KIDNEY IN MALIGNANT ENDOCARDITIS—THE BRADSHAW LECTURE—SMALL-POX IN SALVATION ARMY SHELTERS—RETURN OF INFLUENZA—DEATH OF PROFESSOR TYNDALL.

London, December 9, 1893.

On Thursday last, December 5th, an extraordinary comitia of the Royal College of Physicians was held, and the successor of Sir Andrew Clark chosen. As I ventured to foreshadow, the choice has fallen on Dr. Russell Reynolds than whom no worthier could have been chosen. The only other serious competitor was Dr. Wilks, who had nearly as many votes as Dr. Reynolds, and would have been an equally good president. In accepting the office Dr. Reynolds alluded to the manner in which his predecessor had maintained the dignity of the presidency, and while modestly professing that he could not aspire to do as well, promised to spare no effort in the discharge of the honorable duties entrusted to him.

The General Medical Council concluded its session on Tuesday. Some other cases under the penal clauses were dealt with, and routine business transacted beyond the matters mentioned in my last. A great deal of time was spent over the regulations relating to diplomas in State Medicine, and it was determined to require that in all cases twelve months work should be devoted to study of the special subjects before admission to examination and after a qualification for practice has been obtained. Half the time must be spent in out-door work under a medical officer of health, and the other half in a laboratory.

No doubt such a practical course and a severe examination tends to increase the estimate of such diplomas, but it may be doubted whether the Council is right in devoting so much time to regulating a specialty of a few hundreds to the neglect of the interests of thousands of general practitioners.

The Council also had before it the reports of visitation of examinations and the Education Committee. Some of the examining boards sharply criticised, and it was amusing to notice that criticism was chiefly directed against those which have been considered hitherto the most severe. The Council was established to protect the public by securing that every practitioner should be duly qualified and registered. It spends too much time in listening to members' charges against rival corporations and the consequent *tu quoque*.

Nervous troubles after various infectious diseases are often made extensive in area and sometimes obscure. Among them false disseminated sclerosis has been several times recorded after the exanthemata, and a case following measles was carefully described by Dr. Dawson Williams at the last meeting of the Medical and Chirurgical Society, who thought that, excluding hemiplegia and atrophic muscular paralysis, the neuroses associated with measles might be classified as, 1, acute disseminated myelitis; 2, false disseminated sclerosis; 3, cases with some similar symptoms, but the most prominent symptom being inco-ordination; 4, cases of extensive ascending diffuse or disseminated paralysis resembling diphtherial paralysis. The nervous disorders that have been noticed in association with other diseases may be grouped in the same fashion, though the series cannot be completed for each disease. Vascular changes have been observed in the cord in acute disseminated sclerosis, and clinical evidence supports Westphal's suggestion that a slighter degree of the same changes might give rise to the so-called false variety. Temporary inco-ordination of the lower limbs after infectious diseases may perhaps be due to a similar state in milder form.

Dr. Ormerod remarked that this form of disorder had been reported by Dr. Foxwell as following rheumatic fever with hyperpyrexia. The condition, though unusual, presented a definite group of symptoms, viz., sudden onset early in the infectious disease, delirium, affection of speech, loss of limb power, and tendency to improve if the earlier stage were not fatal.

Dr. Penrose knew of a fatal case of influenza with nervous symptoms, in which scattered foci of diapedesis round vessels, and leucocytes in both the gray and white matter, had been found.

Dr. Beevor thought the sudden ouset, the unconsciousness, and fits pointed to the cerebrum rather than the cord, and that the spinal changes were probably descending lesions from the brain. Either a small hemorrhage into the cortex or thrombosis of the cortical veins would account for the symptoms. After infantile hemiplegia, inco-ordination of the arm occurred, and if both sides were affected the result would be symptoms such as had been described in the paper.

Other speakers drew attention to the peculiarity of the speech, described by Westphal as "squeezed out," and to the so-called chorea which follows canine distemper in which sclerotic lesions of the cord were described by Dr. Gowers some years ago.

At the same meeting Dr. W. A. Hollis read a paper on disseminated fibrosis of the kidney found in cases of malignant endocarditis, aortistis, and kindred diseases. His paper was illustrated with both macro and microscopic specimens as well as notes of cases, and he considered that he had shown that the disease of the kidney was probably dependent on that of the aorta, and that renal trouble is often associated with infective endocarditis. Dr. Herringham could not accept this view and saw nothing unusual in the specimens, although he admitted that renal pathology was "confused and confusing."

The Bradshaw Lecture this year was on "Some Diseases of the Thyroid Gland." It was entrusted to Professor Greenfield, and we expected to welcome him once again in London. Unhappily, he was prevented from

coming, but he had written his lecture and it was read for him by Dr. Sims Woodhead. As might have been expected, it was a very able exposition of the subject, abounding in pathological matter, and comparing the disease with myxœdema. There was an exhibition of lantern illustrations and microscopical preparations repeated the following day.

The law courts have decided that the Salvation Army shelters are not amenable to the Public Health Acts as to disinfection like common lodging-houses. The Medical Officers of Health cannot therefore interfere when, as lately happened, small-pox patients were entertained in a crowded "shelter." No wonder the disease spreads if such foci of infection are to be tolerated. All sanitarians are demanding speedy legislation. Meanwhile, if the Salvation "General" had common sense enough not to resist interference with his absolutism, he would solicit the aid of the health authorities in preventing his charitable shelters disseminating disease.

Influenza is now epidemic again both in London and in many parts of the country. The deaths directly due to the disease, which had been steadily rising from seven to thirty-six per week, in the previous five weeks, from the last figure suddenly jumped to seventy-five in the week. Of course, this represents a very large number of non-fatal cases. Further, there has been excessive mortality from respiratory diseases, many cases of which doubtless are due to the epidemic which has returned in most districts simultaneously, contrasting in this respect with its last appearance when it seemed to proceed more leisurely from place to place.

The death of Professor Tyndall on Monday last came as a shock on the scientific world and the public, although his health has for some time been precarious. The great scientist succumbed to a mistake. He was accustomed to take a dose of syrup of chloral at night, and a solution of magnesium sulphate in the morning. The two medicines stood side by side in similar bottles, and on Monday morning seven drachms of the syrup were given in mistake for the solution—another sad example of the carelessness with which even scientific minds regard the danger of confusing similar bottles of medicine. You will have received an account of the career and untimely decease of this great leader of science before this letter reaches you. The scientific members of our profession knew how to appreciate his work.

New Instruments.

IMMOBILIZATION VERSUS EXTENSION IN THE APPLICATION OF THE PLASTER-OF-PARIS JACKET.[1]

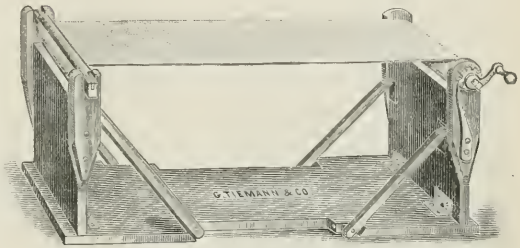
A New Hammock Apparatus.

By SAMUEL E. MILLIKEN, M.D.,

LECTURER ON SURGERY IN THE NEW YORK POLYCLINIC.

The first objection to extension being employed in the application of the plaster-of-Paris jacket for Pott's disease of the spine is that it is unnecessary because the subsequent good results obtained from its use depend solely upon the immobilization. No better evidence of this fact can be given than that the once much-lauded section jacket, with screws for extension, has been abandoned. Second, the method practised of suspending a patient by means of straps under the arms and around the chin and occiput, is tedious when applied to children owing to the fright occasioned. Third, all subjects which have been confined to bed from paraplegia or other complications are very liable to syncope while in the upright posture, and particularly so when the chin and occiput straps are employed to aid in the suspension.

To obtain the best fitting jacket the hammock in which the patient is placed should be tense so as to overcome the swaying, for which the apparatus here shown has been devised. A strip of ordinary muslin, six or eight inches broad, is put on the rollers, and by means of the handle can be made sufficiently tight. The hammock is three feet long, one foot broad, one foot high, and may be used for adults and children. The uprights are attached with hinges so as to make it conveniently portable when folded.



Advantages.—1. It is practicable in all cases of spinal caries.

2. Easiness of manufacture, as it is made of wood.

3. Voluntary muscular spasm is overcome.

4. The spine is kept in the nearest, a normal, position during the application.

5. The plaster can be made very light because the patient is allowed to remain undisturbed until complete hardening takes place.

Since the above illustration was made from a small model furnished me by Dr. Sidney Yankauer, resident in Mount Sinai Hospital, Messrs. Geo. Tiemann & Co. have made the apparatus very much lighter than the original.

[1] Read before the New York County Medical Association, November 20, 1893.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending December 23, 1893.

	Cases	Deaths.
Typhus fever	0	0
Typhoid fever	13	6
Scarlet fever	94	8
Cerebro-spinal meningitis	2	6
Measles	289	9
Diphtheria	190	47
Small-pox	11	2
Cholera	0	0
Varicella	0	0
Pertussis	0	0
Erysipelas	0	0
Leprosy	0	0

Effect of Malpractice Charges and How to Avoid Them.—The Hon. David McAdam, Judge of the New York Superior Court, in a recent address on malpractice before the Society of Medical Jurisprudence, of New York, concluded with the following admirable advice: "Let the professional man live up to the requirements of his profession and observe its ethics. Let him keep up with every advance made in his science. Be careful in professional deportment, diligent in studies, exacting even as to details—putting whatever skill he has in all he undertakes—doing it well no matter what the case in hand may be, avoiding familiarity, drinking moderately of intoxicants, or what is better—not at all. Let him earn a reputation as a good, safe, reliable practitioner, and it will stand by him. It will make imputations of malpractice too improbable to be feared. They will fall like water upon a duck's back. Fortified positions are often impregnable. They are seldom attacked. Like the engineer upon a

steam engine, be ever on the alert for danger-signals and intelligent enough in vision to understand their meaning. Put down the brakes in time to halt in safety. If you have doubts consult some professional brother. Call him in to aid if prudent. A divided responsibility is sometimes desirable. Attack may be made on one, which the mere presence of two will at once avert. Take no unnecessary risks. Assume no needless responsibilities. Never make other people's troubles your own. Assist them by every professional means in your power. Use your best efforts. This is all you are called upon to do—all you can do. You can exercise no superhuman agency. You have no such power, and would be an impostor if you claimed to have. Neither science is an exact one. Neither is capable of assured and exact determination. The best men in the medical fraternity often disagree; so do the best judges upon the benches of the highest courts in the land. Lawyers and doctors should never encourage malpractice suits. They should be brought only in extreme cases, and then only against the unworthy. They seldom help the client, and are sure to injure the professional man, who, like Cæsar's wife, must be above suspicion. Professional men must have good names and keep them unsullied. Merchants may fail, and compromise at twenty-five cents on the dollar. The lawyer and doctor must pay one hundred cents every time, or go down deeper than any 'McGinty' ever read about in song or story. A merchant may do business in his wife's name. The lawyer and doctor must use their own, and if, for any reason, it is not usable, they are gone, bob-line and sinker, and 'none so poor as to do either reverence.' Then emulate the example of the men who have made 'Name' and earned 'Fame' in the two professions, and you will recall the days when it was a proud honor to be called 'Lawyer' or 'Doctor.'"

Bellevue Hospital, New York, had its origin in 1658, when the city had one thousand population. The first hospital was established on Broad, near Beaver Street, at the instance of Surgeon Jacob Hendrickson Varranger, of the Dutch West India Company. The building stood until 1680, when an "hospital of five houses" was erected. In 1697 an attempt was made to establish a poor-house hospital. Renewed attempts were made in this direction, which were finally successful in 1736, after a severe small-pox epidemic. The first physician of Bellevue was Dr. Jacob Van Beuren, who received a salary of $500, but had to supply medicines. As there were only six beds, the salary paid was, considering purchasing power, more than twenty times that paid under like conditions to-day.—*Medical Standard.*

Tannin and Theine in China and Indian Teas.—There is an important difference in the amount of tannin, but not of theine, in these China and Indian teas. The China teas contain from five to six per cent. of tannin, and the Indian teas an average of ten per cent. In both the theine amounts to practically the same—averaging 3.4 per cent. Distilled or softened water, or water to which carbonate of soda has been added, dissolves the tannin more rapidly, but effects no increase in the amount of theine dissolved; the practice of adding carbonate of soda to the water, therefore, is not to be recommended. Moderately hard water, used the moment it reaches boiling-point, effects just as rapid a solution of the valuable principle theine as distilled water, while the objectionable tannin is not so rapidly dissolved. China teas may safely be left to infuse for a longer period of time than Indian teas; for the former even fifteen minutes may be allowed without fear of dissolving an excess of tannin, but for the latter not longer than five, or at most seven, minutes is advisable. Tannin, of course, imparts astringency to tea; but this constituent is not wholly concerned in producing an infusion of the desirable body and strength, for the theine and tannin together amount to only one-fourth of the total extractive matter present, except in some instances of Indian teas, which are particularly and undesirably rich in tannin. The best results are obtained when the tea is powdered immediately before use. The flavor is then exquisite, complete extraction of the theine is insured, and, provided the infusion is allowed to stand for only five or seven minutes, a minimum of tannin is dissolved and no sacrifice of body of strength is perceptible. The remarks on distilled or softened water also apply here. The Indian tea used in this investigation was obtained by private purchase; the China teas were supplied by the Russian China Tea Company, which has been established with the avowed object of supplying Chinese plantation teas in the United Kingdom as imported into Russia.—*The Lancet.*

The Richardson Memorial of the Medical Department of Tulane University, at New Orleans, is a gratifying evidence of medical progress. It was dedicated November 4th with appropriate services. It is a commodious and imposing structure of four stories, containing in all seventy-two rooms, located on Canal Street, between Villere and Robertson Streets. The main lecture hall is fifty-five feet square and twenty-eight feet high, seating four hundred students in opera chairs. The building is the gift of Mrs. Ida A. Slocumb, in memory of her husband, Dr. T. G. Richardson, who devoted thirty-one years of his life as professor in the medical faculty of the school. The planning and erection of the building has been under the supervision of Professor Souchon. Judging from the reports the building is the outcome of the most diligent thought and study as to the construction of medical college buildings. May the school labor to send forth her graduates with an educational outfitting worthy of the unselfishness of the donor and of the excellent mechanism she has provided.—*Medical News.*

BOOKS RECEIVED.

The Diseases of the Male Organs of Generation. By W. H. A. Jacobson. 8vo, pages, illustrated. P. Blakiston, Son & Co., Philadelphia, Pa. Price, $6.00.

System of Diseases of the Ear, Nose, and Throat. Edited by Dr. Charles H. Burnett. Vol. II. 8vo, 858 pages, illustrated. J. B. Lippincott Co., Philadelphia, Pa.

A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M.D. Sixth American edition, from the Eighth English edition. 8vo, 697 pages, illustrated. Lea Brothers & Co., Philadelphia, Pa.

A Text-book of Physiological Chemistry. By Olif Hammerstein. Translated by John A. Mandel. First American edition, from the Second Swedish edition. 8vo, 511 pages. John Wiley & Sons, New York.

Clinical Gynæcology. By Thomas More Madden, M.D. 8vo, 562 pages, illustrated. J. B. Lippincott Co., Philadelphia, Pa. Price, $4.00.

Asiatic Cholera. By John A. Benson. 12mo, 248 pages, illustrated. The J. Harrison White Co., Chicago, Ill.

A Handbook of Ophthalmic Science and Practice. By Henry E. Jules. Second edition. 8vo, 549 pages, illustrated. Lea Brothers & Co., Philadelphia, Pa.

Chemistry and Physics. By Joseph Struthers, D. W. Ward, and Charles H. Willmarth. 12mo, 288 pages, illustrated. Lea Brothers & Co., Philadelphia, Pa.

Selected Papers in Gynecology and Obstetrics. By D. Berry Hart, M.D. 8vo, 239 pages, illustrated. W. & A. K. Johnston, Edinburgh.

Transactions of the American Surgical Association. Volume XI. 8vo, 372 pages, illustrated.

A Practical Treatise on Diseases of the Skin. By James Nevins Hyde, M.D. Third edition. 8vo, 802 pages, illustrated. Lea Brothers & Co., Philadelphia, Pa.

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Fifteenth Annual Report of State Board of Health of Connecticut, 470.
Handbook of Pathological Anatomy and Histology. With an Introductory Section on Post-mortem Examinations and the Method of Preserving and Examining Diseased Tissues, by Francis Delafield, M.D., and T. Mitchell Prudden, M.D. Fourth edition, 118.
Heath's Practical Anatomy. Edited by William Anderson, F.R.C.S. Eighth Edition, 823.
Hernia; its Palliative and Radical Treatment in Adults, Children, and Infants, by Thomas H. Manley, M.D., 823.
How to Judge a Horse. A concise treatise as to its qualities and soundness, etc., by Captain F. W. Bach, 692.
Influenza. Its Pathology, Symptoms, Complications, Sequels, Origin, Mode of Spreading, Diagnosis, Prognosis, and Treatment, by Julius Althaus, M.D., 367.
Introduction to the Catalogue of the Collection of Calculi of the Bladder, etc., Removed by Operation, by Sir Henry Thompson, F.R.C.S., etc., 691.
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Lectures and Essays on Fevers and Diphtheria, 1849 to 1879, by Sir William Jenner, Bart., G.C.B., 823.
Lessons in Physical Diagnosis, by Alfred L. Loomis, M.D., tenth edition, 596.
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